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Abstract

The Archaeology of Daily Life: A Late Antique House at Kom al-Ahmer, Northwestern Nile Delta

Giorgia Marchiori

The archaeological investigation and study of houses and domestic contexts is key to grasping how people lived in antiquity; it permits us to enrich and nuance our overall understanding of daily life during specific historical periods and also touches upon urbanism, economy, and social developments and is equally relevant even in areas with a wealth of preserved written evidence, such as in the case of Egypt. This research yielded a snapshot into the everyday life of a non-elite household of the Late Roman period in Egypt by focussing on a single case study house —inhabited between the late 4th and mid-5th century CE— from the site of Kom al-Ahmer, a settlement embedded in the Delta's countryside, part of Alexandria's hinterland, and involved in the Mediterranean trade network. The investigation analysed what could be discerned archaeologically about how this building was developed, occupied, and abandoned. This study led to the identification of phases of use corresponding to the inhabitants' growing agency over the spaces where they carried out their daily activities, from domestic tasks to small-scale workshop crafts that expanded beyond the walls of the house. The Delta location prompted inquiring about the extent to which the geographical and environmental background shaped the house's architectural design, influencing both planning and construction. The house's design is also examined in light of the Egyptian architectural development and then cross-compared with a sample of contemporary houses from other regions of the Mediterranean to review if the affiliation to the broader Roman empire influenced the standard house form. The results of this research highlight the contribution of micro-scale investigation to the current macro-scale understanding and demonstrate the potential behind the meticulous study of domestic contexts.

The Archaeology of Daily Life:
A Late Antique House at Kom al-Ahmer, Northwestern Nile Delta

Two volumes

Volume 1:

Thesis

Giorgia Marchiori

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Department of Archaeology

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Artistic overlap of the tentative reconstruction of the house over a photograph of the archaeological remains.

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Four years and nine months have passed since I formally started working on this thesis. Submission is so surreal that I am having difficulty believing I am here, let alone living the moment. I am unsure how I should feel or if what I currently feel should be amplified. People around me seem more excited than me; perhaps I am reacting slowly or just feeling numb. Whatever the case, I am taking this opportunity as a moment of reflection to recall pivotal moments of this journey and the people with whom I interacted and who, in one way or the other, impacted me or my thesis, from its conception to its completion.

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This

is

for

you

Chapter 1 – Introduction

How can secret rooms, rooms that have disappeared,
become abodes for an unforgettable past?
Gaston Bachelard (1994: xxxvi), The Poetics of Space

1.1 – Premise

Despite the extensive research that Egyptian archaeology has enjoyed, houses have been a somewhat neglected topic. The charm of ancient writings, buried tombs, and colossal buildings standing the test of time still have a hold on both the public and the researchers. An interest in more mundane topics related to the domestic contexts has been considered, although it did not receive equal treatment for a long time. Studying houses and residential sectors is vital to understanding who people were, how they conducted their daily lives and how they interacted within their respective communities, localities, and historical periods (Smith 2010: 150). From their recorded legacies, we know much about key historical figures —leaders in administrative, social, religious, and military positions— and the people they closely interacted with, yet these individuals constituted a tiny percentage of the overall population. Primary written sources have allowed accessing detailed descriptions of how some past societies were structured and functioned; nevertheless, the authors were often educated individuals, members of the elite, and as far as their accounts aimed to be comprehensive, they would still have been unrepresentative. Furthermore, accounts —such as those of Strabo, Diodorus Siculus, Pliny the Elder, and Vitruvius, to allude to those mentioned in this thesis— often tended to be general or rather specific to a given period. The reliability factor compels historians to consider the extent to which writings are trustworthy, as in the case of Herodotus.

The archaeological investigation of houses permits researchers to access the realm of domesticity at any level of society. It allows investigators to come into contact with buildings, objects, and contexts interlaced with people's lives that can reveal how those lives were organised and how they interacted with each other to form the basis of the mechanisms underlying social organisation. 'An archaeology of houses is an archaeology of space, of artefacts, and of people' (Bailey 1990: 19). This premise underlines the strong ties between people, their built environment, and the material culture within the sphere of their homes.

This thesis is concerned with Egyptian houses of the Late Roman period. Neither household archaeology nor the Late Roman period are favourites in Egyptian archaeology, though both subjects have gained momentum in recent years. My long-term involvement with the Kom al-Ahmer – Kom

Wasit Archaeological Project[1] has led me to excavate the remains of a Late Roman house at the site of Kom al-Ahmer, in the northwestern Nile Delta. The site is located in the province of Beheira, between the cities of Damanhur and Rosetta, west of the Rosetta branch of the Nile.[2] The excavation unit was opened in September 2014; in the summer of 2016, I was drafting my contribution for the first volume of the excavation monograph. I found myself struggling to compile the information; by then, the house had only been partially unearthed, it was unclear whether the foundations had been reached, and not much was known of the surrounding contexts. Faced with more questions than answers, I delved into publications (Alston 1997, 2001; Bowman 1996; Hobson 1985; Hope 1991; Knudstad and Frey 1999; McKay 1975), attempting to explore some of the uncertainties. That was when I realised that much of the subject of Egyptian houses drew primarily from papyri —rarely preserved in the humid environment of the Delta— and archaeology from sites outside the Delta, with a tendency to focus on elite dwellings. Consequently, the Delta archaeology looked either underrepresented or represented by data from other regions in a manner that could easily lead to overgeneralization and assumptions.

Does the unitary category of 'Egypt' prevent researchers from inquiring into the intricacies of identity (Bagnall 2005a: 347)? Should Egypt continue to be viewed as a monolithic and traditional culture due to its millennial pharaonic legacy (Yegül and Favro 2019: 488), or can we consider a multifaceted Egypt where regionality and trends could have prompted a degree of variation? In 2017 I formally began the research for this thesis. The thesis' objective is to consider the archaeology of the Kom al-Ahmer Late Roman house as a case study in light of its geographical position and chronological frame. Hence, three research questions were developed. Initially, the questions were generic, attempting to incorporate the Late Roman Delta housing as a whole; however, I changed them to concern the Kom al-Ahmer house because that is precisely the point that I intend to make, that it is not viable to generalise based on one house or a limited sample of houses. A competent generalisation can only be achieved with a rich portfolio of excavated houses, a task that can solely be accomplished as a research community and in the long term. Instead, the value of a single case study house is that it can allow for a deeper focus on the data and perhaps give rise to questions to be built on later.

The research questions —and their corresponding objectives— are the following:

- Question 1: how much can we discern archaeologically about the way in which this house was constructed and inhabited?
    - Objectives: excavating the house remains and the surrounding area and buildings, carrying out an architectural survey of the remains, identifying the contexts —from buildings to spaces and installations— and analysing the material culture to interpret of the contexts whilst collecting data on the historical period of interest.

[1] The project is coordinated by the University of Padua and the Italian Egyptian Archaeological Centre and has been investigating the sites of Kom al-Ahmer and Kom Wasit in the region of Beheira, Western Delta, since 2012.
[2] E 256816.103E, 3450321.139N (WGS84/UTM coordinates).

- Question 2: to what extent did the environment and geography of the Delta play a part in the design of the house?
    - Objectives: collecting geographical and environmental data relating to the area where the house is, cross-comparing the data from the architectural survey with that from other houses from different Egyptian regions.
- Question 3: did the Roman influence shape the identity and design of this specific Egyptian house?[3]
    - Objectives: comparing the remains and form of a number of contemporary non-elite Late Antique houses in Egypt and the Eastern Mediterranean with those of the case study house.

The following sections of this chapter approach the concept of houses and what can be learned from their study. An introduction to domestic and household archaeology in Egypt will follow; this will be tightly linked with an analysis of the challenges related to how archaeological research on houses has been approached thus far; the biases will be considered too. These factors will be juxtaposed with the research questions to show how the questions emerged in light of certain limitations. Finally, the site of Kom al-Ahmer, where the case study house is located, will be introduced in detail. Throughout this thesis, the Kom al-Ahmer house will be referred to as the Late Roman house, the case study house, or simply the house.

The thesis' main body is subdivided in the following way: Chapter 2 – Geographical, Environmental, and Historical Background will approach the geographical and environmental situation in which Kom al-Ahmer is situated, as part of the argument for localised studies lies in the divergence between the different regions of Egypt and how the management of living spaces could potentially be affected in different environmental circumstances. The chronological frame will also be analysed to appreciate Egypt's sociopolitical situation in the Late Roman period, considered between 284-450 CE in this thesis (see *Section 2.3.1 – Timeline*). The site will then be reviewed in light of these specific spatiotemporal grounds. This chapter sets the basis necessary to tackle Question 2.

Chapter 3 – The case study house will look at the archaeological remains by providing a detailed overview of the understanding of the building and its uses to develop a building biography. The chapter considers the degree of preservation of the remains and strives to maximise the reach of the available data. The house's life cycle is presented with tentative 3D reconstructions, categorised in the main phase and partitioned into subphases. The archaeological inquiry did not limit itself to the house per se but expanded towards its surroundings, exposing the nearby buildings and open spaces. Each context is

[3] The use of the terms 'Roman' and 'Egyptian' should be rightfully problematised, especially in light of the chronological period under study, during which Egypt was a remarkably multi-cultural and multi-ethnic society (Johnson 1992). A discussion on this can be found in Chapter 5 – An Egyptian house in a Mediterranean context, especially in *Section 5.1 – Introduction* and *Section 5.4 – Considerations*.

presented individually. This chapter refers to Question 1.

Having established the geographical and temporal backgrounds and having presented the state of the archaeological remains, Chapter 4 – Beyond the excavation: analysing architecture and usage expands on the data recorded in the excavation. The architectural survey centres on the building remains, and it inquires on the potential concerns linked to the environment of the floodplain, focusing on the building's foundations and the conformation of the walls. The second half of the chapter contextualises the data attained in the excavation, evaluates the stratigraphy, architecture, and material culture, and uses them to reconstruct some of the daily life of the inhabitants of the house to provide a snapshot of non-elite daily life in an Egyptian settlement embedded within the Delta countryside during the first half of the 5th century CE. This chapter deals with Questions 1 and 2.

As Chapter 3 – The case study house and Chapter 4 – Beyond the excavation: analysing architecture and usage use the available data on Roman and Late Roman houses in Egypt, Chapter 5 – An Egyptian house in a Mediterranean context considers Egypt's involvement in the Roman empire during the Late Roman period and reviews the house form to see if the affiliation to the broader empire had a measure of influence on its design. The chapter will also touch on the issue of the elite against non-elite house studies; a sample of non-elite houses from other Mediterranean regions of the empire is compared with the Kom al-Ahmer house to discuss themes of local identity, building traditions, and the extents of cultural influences on domestic architecture. This chapter refers to Question 3 but also indirectly to Question 2.

1.2 – What is a house, and why should we study it?

A simple definition for 'house' is a structure used by people for habitation; yet this common term embodies a plethora of hidden complexities. The 'house's' appearance is flexible and responsive to the occupants' needs, socioeconomic situation, culture, and geographical location (Rudofsky 1964). It is often associated with an immobile structure, but it is not restricted to that, especially when considering people following a nomadic lifestyle, whose houses are blended with their means of transportation or can be disassembled and transported. The interpretation of the physical building and its contents can, therefore, provide much information on the inhabitants, their cultural background, and lifestyle. The structural features of a house, building materials, architecture, contents, internal division, number of rooms and storeys, perceptions of public and private, use of the rooms, use of outside space, the activities that took place within them, and the decorations are all reflections of the occupants and the cultural influences shaping their lives. Whether the household is constituted by an individual, cohabitants, a single or extended family, a group of families, or a commune is also a determinant

towards grasping socio-cultural customs or tendencies.[4] The reason houses can mirror their inhabitants' identity is because they are also the place where people can hopefully be and express aspects of themselves. House plans denote eventual stances toward privacy, and how and when privacy was required allows to discern social needs, cultural perception, and individual and group conduct (Plimpton and Hassan 1987: 449; Sanders 1990: 50; Steadman 1996: 58, 64).

Therefore, what makes a 'house' is a purpose that combines the people, their needs, the architecture, and the related items. Why is it essential to investigate domestic buildings and contexts? Because 'houses are primary containers of culture' (Alston 2001: 44). Gill Blanchard emphasised a tight relationship between 'the building, the people, and the place' in the online event 'Tracing Your House History (Part 2).'[5] The advantage of house studies is that they have the potential to reveal the rich variability of how people conducted their daily life. They go beyond factors such as regionality and social status because they provide the possibility to recognise at least some traits of the inhabitants, from how they approached and appropriated the house space to more personal choices related to their lifestyle and routines. This reasoning resonates with Bourdieu's (1977) theory of practice, by which social practices and routines are key to grasping how social agents coped with their conditions and how they collaborated —consciously or unconsciously— to form and shape its development throughout time, as well as Gidden's (1984) structuration theory, by which society, its rules and implementations, interact with its agents in a dynamic and cyclical interaction based on the reproduction of social systems framed by everyday actions (Dobres 2014: 60–2; Samson 1990: 14).

According to Ross Samson (1990: 2), the 'house' is 'is the single most important artefact for reconstructing past societies.' Many researchers agree on the opportunities offered by the study of houses, often referring to the house(s) as microcosm(s) (Boozer 2012: 111; Budka and Auenmüller 2018; Hendon 2007: 279; Hingley 1990: 125) through which the investigator can yield information that spans beyond the realm of the dwelling, reaching broader insights on society —adhering to the theory of social praxis (Samson 1990: 15).[6] Douglas W. Bailey (1990: 44) referred to the houses of the Bulgarian Chalcolithic[7] site of Ovčarovo as living beings themselves, entwined in a life cycle of birth, life, growth, death, and memory— the latter through the display of house-shaped artefacts. The beauty of this reasoning is that it further reflects the physical and metaphorical involvement of this type of buildings in the life of its inhabitants and the development of the community. The reasoning applies to the study of houses in general, which highlights the potential for interregional and interdisciplinary

[4] See Bahney 2019 for a modern example of how the way in which the concept of 'house' is constantly developing and put in practice: 'Housing costs have become so expensive in some cities that people are renting bunk beds in a communal home for $1,200 a month. Not a bedroom. A bed.'

[5] The event took place on March 4th, 2021 (https://www.eventbrite.com/e/tracing-your-house-history-part-2-tickets-142558403021?keep_tld=1).

[6] 'In some societies the house serves as a microcosm for the social universe of its inhabitants – in other words, the house expresses the people's perception of the organisation of their society and world. Social factors are therefore responsible for the form of the house – its shape, the number and distribution of rooms and also the distribution of activities within those rooms' (Hingley 1990: 125).

[7] 4th millennium BCE.

approaches. Through the study of houses, we can reflect on the societies that produced them (Blanton 1994; Bowes 2010: 11; Rapoport 1969). The investigation of single houses in the same settlement allows us to explore nuances that would risk going unnoticed otherwise. They are nuances that enhance the individual attributes of different households, which remind us about the inherent multi-everything character of societies.

I wish to include two examples of semi-archaeological and non-archaeological house studies that particularly impressed me: the open-air museum *Kulturen* in Lund (Sweden)[8] and project *10/1* by Romanian photographer Bogdan Grbovan.[9]

Kulturen incorporates an open-air museum where several historic buildings can be visited, among which several houses, some local while others were disassembled, transported from southern Sweden, and reassembled. The objective is to show how people lived in different Swedish social settings in the past centuries.[10] The exhibit is not exclusively architectural, as the houses were also decorated and filled with furniture, objects, and even the types of food that the inhabitants would have consumed. The visitors follow a trail that takes them from one house to the other, and the real-life experience permits them to grasp evident and subtle details of the occupants. The inhabitants are never shown, and the houses are empty of people, but their essence is expressed by the houses, and it is almost overwhelming.

Project *10/1* is a sociological survey conveyed in a collection of photographs. Grbovan photographed ten one-room apartments in an apartment building in Bucharest to show how inhabitants —with varying individual and socioeconomic situations— expressed and personalised otherwise identical spaces. The building dates back to 1966 and was constructed to ensure that all occupants would have had the same architectural product (Gragert 2016). The resulting photographs demonstrate how architecturally identical spaces can be construed and modified according to different people.

The examples mentioned above are sources of inspiration and reminders of the potential of the archaeological study of houses. This statement is nothing new; anthropological and ethnographical approaches to domestic archaeology have long figured within the research domain (Briz i Godino and Madella 2013: 1). It is not likely to attain a comparable degree of detail since archaeological contexts are often no longer living contexts.

This section highlights the fact that the 'house' concept is subjective and much dependent on personal backgrounds and living conditions (Samson 1990: 16). The term 'house' can be applied with regards to its essential purpose maintained throughout time: a place where to reside, to practice subsistence (eating, sleeping, nurturing familial relationships), store personal belongings, and work. It can easily encompass multiple purposes according to the lifestyle and socioeconomic means of its

[8] https://www.kulturen.com/welcome-kulturens-museums/kulturen-in-lund/
[9] https://girbovan.ro/10pe1-2008/
[10] There are six historical houses spanning from 1768 to 1930s (https://www.kulturen.com/welcome-kulturens-museums/kulturen-in-lund/how-did-people-live-in-the-past/).

inhabitants. It does not have to conform to strict guidelines of use; on the contrary, it is developed and shaped by its inhabitants, who ultimately make it a reflection of (part of) their identities. It complies with a fluid use of space because it can function as multiple venues in one and integrates the features required by the inhabitants; this allows it to be appreciated contemporaneously as a safe haven and a workspace.

1.3 – The challenges of domestic and household archaeology in Egypt

The research questions listed in *Section 1.1 – Premise* result from some limitations in the archaeology of Egyptian houses. These limitations correlate to several factors that range from research objectives, available archaeological evidence, preservation levels, and a geographical and temporal bias.

1.3.1 – Monumental vs domestic

While archaeologists have tackled house and household studies in various countries and cultures, domestic contexts remained a somewhat side subject despite the long history of archaeological investigation in Egypt and compared to the amount of time and resources devoted to other contexts. This discrepancy may be related to various reasons, among which the monumental *vs* domestic dichotomy, wherein larger structures, often of an administrative, mortuary, public, and religious nature, primarily when related to the secular and religious elite, were favoured over smaller, less sophisticated structures related to common people (Arnold 2001: 123; Ritner 2008: 171; Steadman 1996: 53). Often houses were excavated not with the primary intention of investigating them but as a means to another end, for instance, understanding the urban plan of a site, exploring the reuse of a monumental structure, and retrieving artefacts and papyri. This dichotomy also applies to the Late Roman period, which sees a preponderance of studies on monastic art and architecture (Papaconstantinou 2012: 197).

In my opinion, one factor that heavily influences this dichotomy —at least in the case of the Delta— is the building material. Mudbrick was the primary building material for various constructions, especially houses of all ancient Egyptian periods, as it was the most accessible —and possibly cheaper— building material (Arnold 2003a: 110; Brooks Hedstrom 2017: 198; Correas-Amador 2013: 263; Lembke 2012: 210). Other materials, such as stone and wood, were integrated as fixtures (beams, thresholds), but there are examples of houses built in stone, especially from the Roman period. Mudbrick required maintenance as it would be susceptible to environmental factors (Baloi 2001: 49); this results in poorer preservation in the archaeological record and greater difficulty in excavation when compared to structures built with more durable materials like fired bricks and stone. Mudbrick houses are less likely preserve in non-desertic environmental conditions; additionally, the archaeological record

has revealed how they were levelled, re-built, and re-used over time.

In the Delta, mudbrick buildings are rarely preserved above the foundation level. The site of Tell Timai (Eastern Nile Delta) is one of the few exceptions where mudbrick buildings, predominantly those of houses, are still standing several metres in height (see Lorenzon et al. 2020). Due to archaeological investigation in Egypt and Egyptology being so closely tied to antiquarianism (Trigger 2006: 80–120; Ucko and Champion 2003 v), research objectives have more often than not been linked to the finding and study of objects and textual evidence. As such, the study of more modest buildings garnered little interest, and in turn the study of buildings preserved almost only to their foundation levels generated even less curiosity. Indeed, the next section will describe how the search for papyri was one of the leading research objectives for the excavation of houses.

1.3.2 – Papyrological evidence

One of the first publications tackling domestic architecture in Egypt was by Perrot (1881: 620–27), which provided an overview of Egyptian houses. Yet, one of the first works to focus on Egyptian Ptolemaic and Roman period houses was Luckhardt's thesis (1914), which employed data obtained through papyri. The houses of these periods, including the Late Roman period, were the object of other publications in the following years: Husson (1983) created a vocabulary of the Egyptian private house based on the Greek texts written on papyri and catalogued the houses of Syene mentioned in the Paternouthis archive (Husson 1990). Nowicka's work (1969) also concentrated on Ptolemaic and Roman and Late Roman period houses; nevertheless, this work considered both papyrological and archaeological evidence. We begin to see a pattern: the early interest in the Ptolemaic and Roman period houses was heavily absorbed by the retrieval of papyri.

Some of the most well-known Roman period studies in Egypt are still those that had been driven by the search for papyri, whose study allowed for insights into the daily life of regular people; Karanis, Oxyrhynchus, and Tebtynis are some examples of this (Boak and Peterson 1931; Brooks Hedstrom 2017: 194; Grenfell 1897). Quibell recounted that it was the finding of a 'large mass of papyri' by the local villagers during the construction of a tomb that attracted the attention of dealers and archaeologists and put the Kom Ishgau (Aphrodito) on the map (Quibell 1902: 85).

Papyri can yield details that can hardly be inferred from other archaeological data. Hence, the abundance of papyrological finds dating back to the Roman and Late Roman periods has rendered Egypt a unique source of information, mainly due to the high quantities of texts concerning the everyday aspects of human life taking place in the towns and villages from which they were unearthed, from legal documents, house sales, rental agreements,[11] administrative accounts, contracts of a variety of sorts,

[11] For instance, see P.Oxy.XXIV 2406 (ground plan of a house), P.Oxy.XIV 1634 (sale of a mortgaged house-property), and P.Lond. II 391(S.329) (agreement and rental fee of a house).

receipts, to personal correspondence, accounts, and memoranda.[12] Textual evidence, from private correspondence to contracts and tax registers, has allowed researchers to attain an understanding of household composition and details of its members, their socioeconomic situations, ethnic backgrounds, and descriptions and costs of daily activities, as well as topics such as private property, house ownerships, rentals, and prices. Socio-cultural information retrieved from texts has also allowed us to gain insight into architecture, house configurations, uses, and decorations (Uytterhoeven 2022: 261, 266, 275). Much research has been based on papyri (Langellotti 2020; Mundy 2018; Ruffini 2018b; Wilfong 2002). Egyptian papyri are being used to infer the governmental practices and the daily written interactions among civilians also in other parts of the Roman empire, in line with the recognition that Egypt was not isolated within the empire but well-integrated and administered similarly to the other regions (Bagnall 1993: 10; Knapp 2011: 322).

Nevertheless, the enormous amounts of papyrological data, whilst complementing the archaeological data, have also in some way obscured it (Van Minnen 2007: 209); in Papaconstantinou's words (2012: 196), they 'had the detrimental effect of sending to sleep the need for other types of evidence.' Some have even considered papyri the primary data source on houses (Alston 2001: 45).[13] It is undeniable that papyri evidence has permitted researchers to access information that would otherwise not have been accessed; however, it is also relevant to bear in mind that the kind of information retrieved from papyri is often different from that retrieved from the archaeological data and that they should be taken in consideration accordingly (Allison 2005: 203). Indeed, there have been appeals that archaeological and papyrological evidence should not be separated as they form part of the same context (Bagnall 1988: 200; Rathbone 2002: 166).

The following paragraphs review three sites frequently cited in house and household studies whose initial investigations had been sprung by the search for papyri. They are here used as examples to show how the study of houses has been tightly connected to the retrieval and study of papyri.

Despite the amount of excavation, little is known of Oxyrhynchus' domestic contexts, and the latest investigations have tended to focus on funerary and religious remains (see Mascort and Padró 2020). In the case of Tebtynis, the initial excavations retrieved about 30,000 papyri fragments (Grenfell, Hunt and Goodspeed 1902) and exposed a small church and a possible monastery; however, the publication of the archaeological finds concerned the paintings in the buildings solely (Walters 1989). Later excavations, from 1988 onwards, revealed archaeological remains ranging from the Middle Kingdom to the 9th-10th centuries, and included residential sectors of the Roman period CE (Brooks Hedstrom 2017: 194).

[12] 'We know thousands of individuals from Roman Karanis in the second, third and early fourth century thanks to papyri. If the total population that lived in Karanis through about seven generations was as much as 100,000 […] we still know a larger part of its population than of any other town before the early modern period' (Van Minnen 1994: 234).

[13] 'The papyrological material suggests that there was a vast range of housing in Roman Egypt and that houses were typologically variegated' (Alston 2001: 63). While this sentence could reflect the state of the field at the beginning of the 2000s, it also denotes a heavy reliance on the written rather than the physical data.

While Karanis suffered considerable damage to its buildings following the 1920s-30s University of Michigan excavation, which did not backfill the structures (Barnard et al. 2016: 86), the records of the excavation and the collected finds allowed excavators to expand on the initial results on the settlement's buildings and urban plan (for instance, Barnard et al. 2015; Davoli 1998; Depraetere 2005; Husselman 1952; Husselman and Peterson 1979; Simpson 2014; Wilburn 2010). Combining the rich written evidence with the archaeological one led to obtaining a relatively comprehensive picture of life at Karanis during the Roman period; however, the house-to-house level understanding is still ambiguous, and the chronology is still under revision (Landvatter 2014: 39–43). What also needs to be considered about this thesis' topic is that there is fewer papyri evidence related to the 4th-5th centuries CE compared to the 1st-3rd centuries CE (Bagnall 1993: 13).

Late Roman and Coptic houses were excavated at the site of Medinet Habu in Upper Egypt by the University of Chicago's Oriental Institute (Figure 1). The project initially intended to uncover and plan the New Kingdom remains of the temple and palace area of Ramses III; however, extensive remains of Coptic houses were noticed north of the Great Temple. The Coptic remains were identified as the town mentioned in various papyri, "Castrum Jēme", which triggered the interest of the excavators because it was 'not an unknown mass of ruins similar to countless others in Egypt,' but an identifiable place (Hölscher and Nelson 1931: 50). The investigators hoped to find papyri inside the houses, but unearthed thousands of *ostraka* instead (Hölscher and Nelson 1931: 50–1). Although the investigation of the temple was the primary objective, the mission carried out an extensive architectural survey that generated detailed maps of the settlement's remains (Hölscher 1934).



Figure 1 Remains of the Coptic houses of Djeme (Hölscher 1954 plate 29 A).

1.3.3 – Complex contexts

In an article that used as an example a Late Roman house excavated at Abou Mena (Grossmann et al. 1995), Alston argued against the house studies and highlighted their shortcomings, mainly that 'the domestic space is so loaded with significance that the interpretative possibilities drift towards the infinite' (Alston 2007: 378), which can be linked to the fact that the abandoned contexts, poor in finds, left much to the imagination (Alston 2007: 373–74). Alston's critique can be seen as a helpful reminder of the complexities of interpretation, that houses are heavily used environments, and their archaeological context results from multiple deposition and accumulation processes (see Schiffer 1985). Yet, it sounds like an inconsequential realisation, given that archaeologists face similar issues daily in excavation and data interpretation. Bluntly said, it is part of the job. We cannot approach the archaeological context fearing that we may never absolutely understand it; there would be no investigation under these auspices. A better way to improve the situation is to develop methods, strategies, and approaches to solve or compensate for the shortcomings. Ultimately, what is desirable is

for archaeologists to be able and willing to devote the necessary time to investigate and properly publish more houses thoroughly; this will permit building up on the *corpus*, which would eventually allow for detailed comparison studies that may be able to tackle interpretative dilemmas.

Another reason for the neglect of interest in domestic contexts in ancient Egypt is that the excavation process is relentlessly time-consuming. Hope (2018) provided insight into the long-term character of the excavations of the houses of Kellis (Dakhleh Oasis): despite examining several buildings, only five houses at Kellis were fully excavated between 1986 and 2018. At the present time, the excavation of this thesis' case study house required seven field seasons between 2014 and 2019. It is a lot of effort and investment, and it did not fit well with the objectives of Egyptology, whose archaeological methodology was influenced for many years by its very close ties to antiquarianism (Trigger 2006: 80–120; Ucko and Champion 2003 v), which had little interest in the finds related to dwellings, especially non-elite ones. Indeed, interest was triggered by the opportunity of retrieving papyri. Anthropological approaches in Egyptian archaeology are not too common, which may also explain why there has been less interest in analysing domestic contexts and interpreting their socio-economic meanings, amongst other things.

What is more, there are examples in which researchers expressed the uncertainty when identifying house remains. A few examples from Late Roman Egypt: Rodziewicz (1988: 267) questioned whether three buildings in Alexandria categorised as houses were not, in fact, chapels. One of the excavated buildings at Tell el-Balamun (Eastern Delta) could not be confirmed as a house or an administrative building (Spencer 2009: 10) (Figure 2). At Taposiris Magna, the interpretation of the function of some structures has moved from fort or monastery to domestic (Alston 2001: 115). A similar perplexity arose during the initial stages of the excavation of the Kom al-Ahmer case study house. This ambiguity may be linked to the shortage of investigated domestic contexts, which influences our understanding of the subject (Abdelwahed 2012: 197).

Ellis (1988: 573) had noted long ago that the lack of sufficient archaeological information in some regions of the Mediterranean impeded tracing the range and development of houses appropriately and settlements. The need for excavations to shift their focus from individual public buildings and expand into residential and commercial sectors, as well as from city to village, is required to investigate the urban milieu and planning of the provincial settlements of the Late Roman period, of which not much is known (Gascoigne 2002: 16; Steadman 2015: 134) and also enhance the understanding of the trade networks and their reaches (Kingsley 2003: 132). Often the digs carry out partial excavations of contexts, mainly focused on the interiors of houses and less on the exterior, and surrounding areas, which weakens the insight into how houses functioned and their relationship with the nearby urban fabric (Costello 2014: 42).

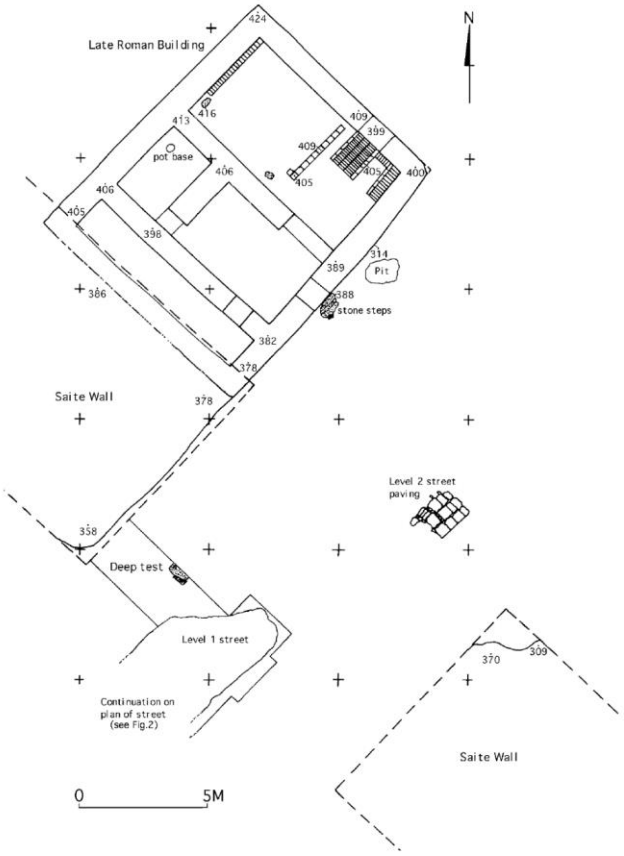


Figure 2 Tell el-Balamun, plan of the late Roman structure and the remains of the 26th dynasty enclosure wall (Spencer 2009: 11, figure 1-4).

There seems, therefore, to be an unsolved conflict about research on houses in Egypt. Some scholars argue that there exists a large body of data for domestic buildings in Egypt ranging from different periods (Arnold 2003a: 110),[14] while others contend that there is a poor amount of information on housing remains, particularly in the Delta and coastal region if compared to other Mediterranean countries (Rodziewicz 1988: 268). These contrasting statements reflect an unbalanced situation. Ultimately, there are several excavated houses, but few have been adequately published; furthermore, the temporal and geographical spread of the published houses is uneven.

1.3.4 – Temporal bias

When houses have been the object of research, the investigations have focussed on specific historical periods pending what period was in *vogue*. Egypt's most well-known house studies occurred in the well-preserved New Kingdom settlements of Tell el-Amarna (Upper Egypt) and the workers' village of Deir

[14] When drafting the proposal for this thesis, I was asked what else could there be to learn about houses that we do not already know.

el-Medina (Valley of the Kings). The houses of Tell el-Amarna were among the first to which publications were dedicated (for instance, de Garis Davies 1929; Ricke 1932; Borchardt and Ricke 1980a) (see *Section 5.2 – Overview of the development of house form in Egypt*). The archaeological investigation undertaken at the sites mentioned above is distinguishable for its extensiveness and comprehensiveness (Endruweit 1994; Kemp and Stevens 2010; Koltsida 2007; Meskell 1999, 2002; Spence 2004, 2015; Tietze 1996). Spence's (2004, 2015) study of the Amarna houses is an example of analysis encompassing archaeological and architectural data to understand past social relations and activities within households. On the other side of the spectrum, a preponderance of sites that have barely been archaeologically explored still exist.

Overall, most attention has been focused on the Pharaonic periods and less on the Late Roman, Byzantine, and Islamic periods. Nonetheless, this bias has become less evident in recent years, with a growing interest in less popular topics and historical periods gaining momentum; for instance, the topic of tower houses has prompted a further study on the Late and Ptolemaic periods. An interest in monastic archaeology has also incorporated the study of houses (Bridel 1986; Brooks Hedstrom 2017, 2019; Grossmann 1998; Kasser 1984).

1.3.5 – Geographical bias

The archaeological investigation of the Nile Delta presents a series of difficulties in contrast to other areas in the country. The population density in the Nile Delta is much higher than in the Valley, and the whole area is constellated by settlements of various sizes, ranging from cities to small villages to clusters of few houses between agricultural fields. There is no desert edge near population centres except in the case of Kom el Hisn, Kom Firin, or the Sinai fringe, where large, monumental structures and tombs could be built and preserved for future generations.

There is a geographical bias linked with poor preservation conditions in humid regions of Egypt, which unsurprisingly are also the most inhabited and extensively employed for agricultural purposes. The climate is damper in the north than in the south of the country, and mud brick structures are particularly affected by humidity (Blouin 2014: 1–2). The humid environment is also a detriment to organic preservation; very few papyri specimens have survived until now or have been found in the Delta in contrast to the other desertic areas of Egypt. Some documents (P.Thmuis) were preserved by carbonisation at Tell Timai in the Eastern Delta (Blouin 2014). This constraint leads to another limitation, which focuses on the archaeology of certain regions and historical periods; this tendency hinders our understanding of the evolution of houses in Egypt as it is challenging to advance cogent links across knowledge gaps. Many studies that concerned Ptolemaic and Roman period houses and their uses (for instance, Abdelwahed 2012; Campbell 1974; Depraetere 2005) have depended on the data from the Fayum sites, namely because they have been among the most extensively excavated. The

excavations of the University of Michigan in the 1920s and 1930s unearthed extensive domestic districts at two particular sites, Karanis and Dime es-Seba (Soknopaiou Nesos) (Boak and Peterson 1931; Boak, Peterson and Haatveldt 1935). The result is that some Fayumic sites have unwillingly become representative of the whole category.

Concerning the situation in the Delta, a comprehensive catalogue of the history of the excavations undertaken at major Delta cities was compiled by François Leclère (2008). The book focused on the archaeology of the first millennium BCE, though it also included findings from the Roman and Byzantine periods. The main subject is the cities of Lower Egypt, and the book clearly illustrates that the focus of many excavations was on the religious quarters of the sites (temples, temple enclosures, cemeteries). Domestic areas were also excavated but not to the same extent as the religious buildings. Over 700 *koms* and *tells*[15] have been recorded until now by the Delta Survey of the Egypt Exploration Society.[16] The preservation of these sites is at risk as several have been incorporated under modern settlements, while others are being encroached upon, either by agricultural fields or urbanisation, which enforces the geographical preservation bias.

Between the 1830s and the 1930s, numerous Egyptian sites underwent non-archaeological excavations: companies hired a local workforce to remove *sebakh,* which was constituted by the remains of mudbrick buildings, in which archaeological sites were abundant. *Sebakh*, rich in Nile silt, was used for the industrial production of saltpetre, used for fertiliser, gunpowder, and fired bricks (Bailey 1999: 211, 213; Davoli 2015b: 94). Often archaeological investigation was undertaken in concomitance with these excavations, which led to the complete or partial removal of archaeological sites. While this practice was banned after the 1930s, it still occurred in the 1940s (for instance, at Kom al-Ahmer, see el-Khashab 1949: 28) and continued to be undertaken, though on a smaller scale (Bailey 1999: 212). It did not help that at the time the government 'considered *sebakh* a material freely available for public use,' the antiquities market was booming, and thus the legislations that supposedly should have protected the sites were not enforced with strength, also due to the lack of enough personnel in the institution of the Service des Antiquités (which had been instituted long before, in 1858) (Davoli 2015b: 96, 102, 110).

Naukratis is a well-known example of the results of *sebakh*-mining: Flinders Petrie arrived at the site in 1884 already knowing that it was being dismantled and tried to record what was possible (Leclère 2008: 113–57); nonetheless, the religious buildings —such as the gateway building of the Great Temenos, its large block chambers, and the Temenos of Apollo— were the main focus of investigations to the point of neglecting the domestic and commercial sectors as well as the later occupational phases (Ptolemaic and Roman) (Coulson and Leonard 1981: 1; Leonard 1997: 19). Petrie (1886) devoted a chapter to the houses of Naukratis and their contents in the book *Naukratis I*, where he acknowledged

[15] The Arabic words *kom* and *tell* mean mound.
[16] https://www.ees.ac.uk/about-the-survey [accessed on December 20th, 2017]

that little excavation work was carried out in the ancient settlement. The general plan of the ancient settlement included the residential areas (Figure 3 and Figure 4).

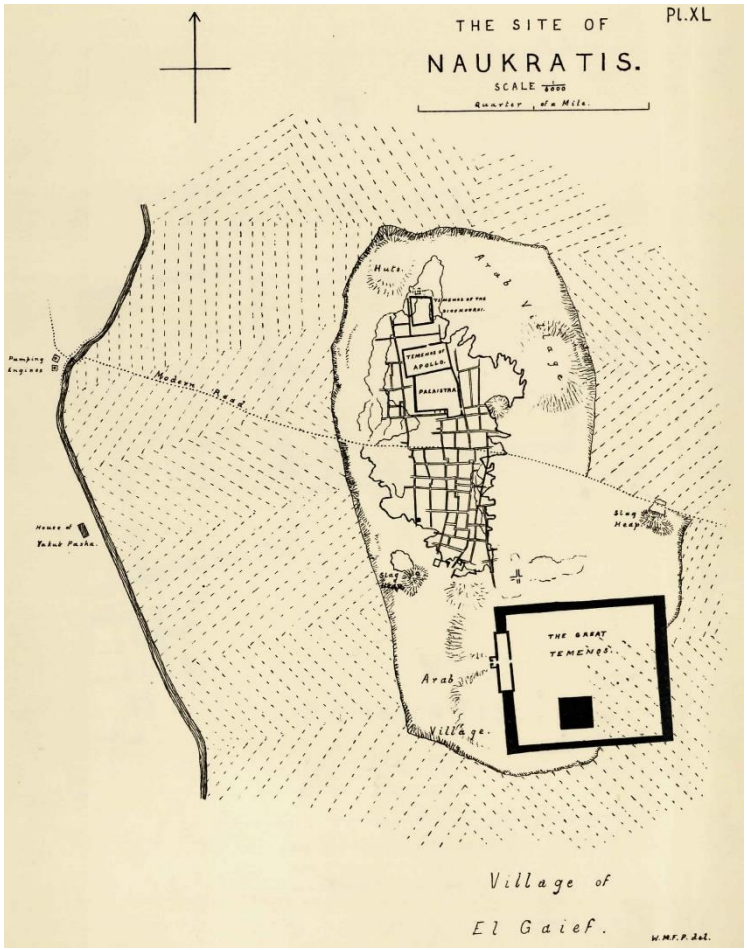


Figure 3 Flinders Petrie's plan of Naukratis (Flinders Petrie 1886, plate XL). The Temenos of Apollo is visible in the northern part of the site, whereas the settlement remains lay south of it.

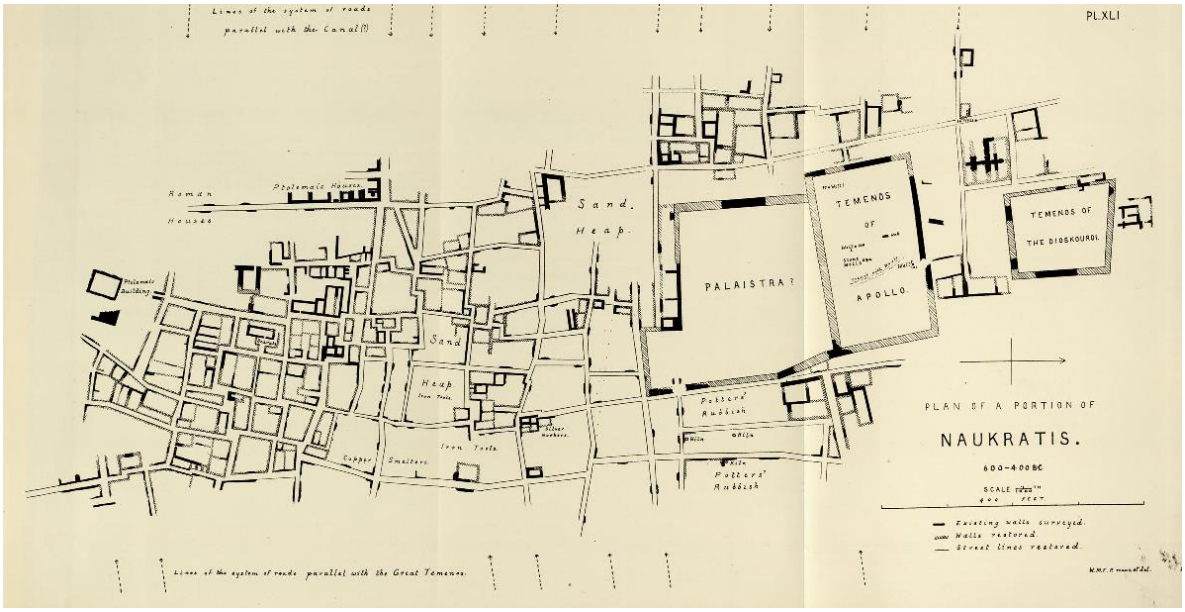


Figure 4 Detail of the plan of Naukratis (Flinders Petrie 1886, plate XLI). The Roman residential quarter is in the southern part.

The site of Buto is another example. Flinders Petrie reported extensive remains of the Roman period at Buto at the beginning of the 1900s, mainly as two mounds separated by the temple (Figure 5). Despite the plundering of *sebakh*, the house walls were standing 'high and bare' (Flinders Petrie 1905: 36). Further Roman houses, constructed in fired bricks, were located northwest of the two mounds and west of a rise encompassing the Roman cemetery. Additionally, more ruins of houses were detected on the sides of the temple, up to the top of the *temenos* wall (Flinders Petrie 1905: 36–7; Seton-Williams 1965, 1966). Not much information was provided about the houses; the buildings were dated using the associated pottery remains.

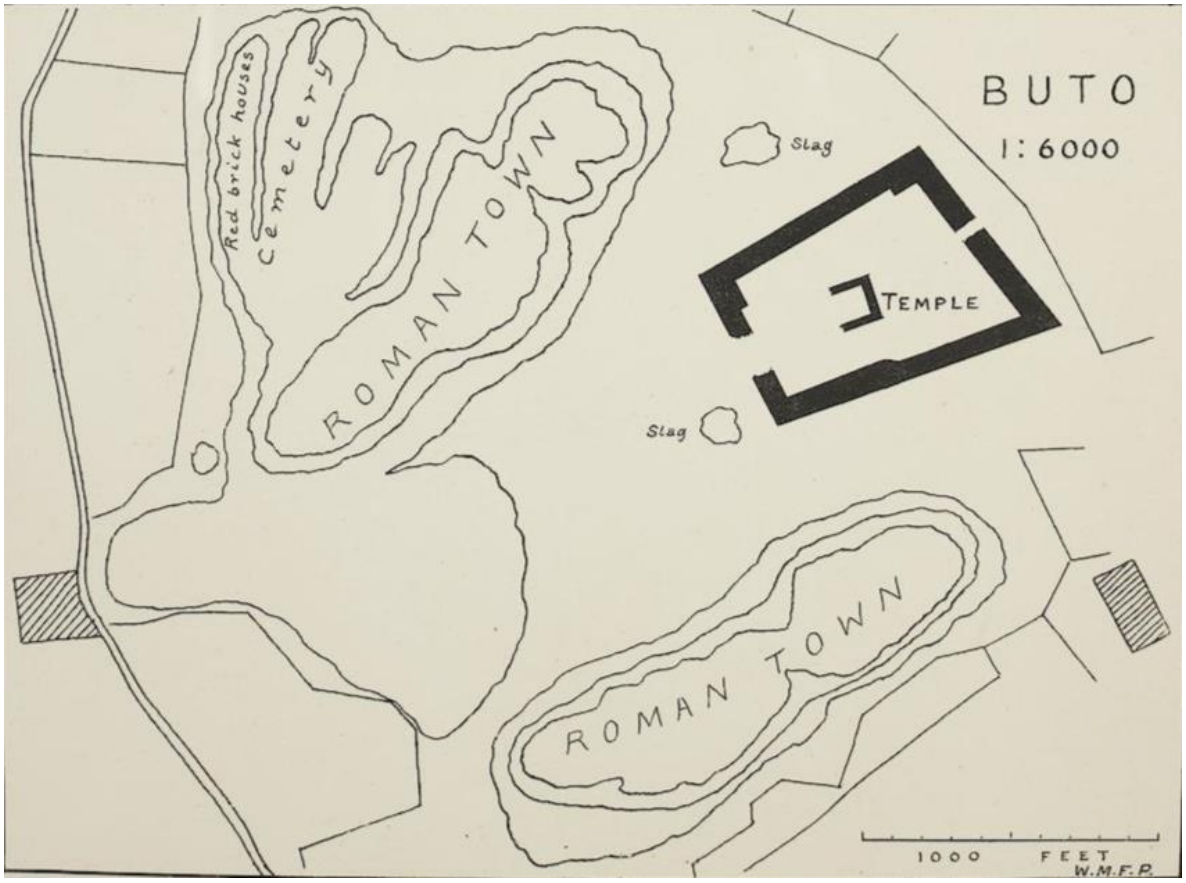


Figure 5 Map of Buto (Flinders Petrie 1905, plate XLIV). The two mounds termed 'Roman town' are mound A (the northern one close to the cemetery) and mound C (the southern one). The temple area is known as mound B.

Furthermore, the looting of sites has become more widespread since 2009 due to economic pressures and growing demand for black market antiquities (Parcak et al. 2016). In addition, several archaeological sites suffered damage related to the encroachment of cultivated fields and modern constructions ranging from industrial development to urbanisation. Sites are also used as burial grounds as well as garbage dumps (Parcak et al. 2016: 195; Viney 2012).

However, the Delta has become the target for long-term investigations in recent years. This shift was influenced by various aspects, including the construction of the High Aswan Dam in 1971. The implementation of the dam arrested the inundation phenomenon, which allowed the expansion of the region's modern settlements, threat to ancient sites and an increase in archaeological investigations. Furthermore, in 2000, at the International Congress of Egyptology, Gaballa Ali Gaballa, then Secretary General of the Supreme Council of Antiquities (SCA), urged the need to focus excavation efforts in the Nile Delta (Bennett 2019). When newly appointed as head of the Supreme Council for Antiquities (SCA) in 2002, Zahi Hawass announced the intention to promote the safeguarding and investigation of the Delta's heritage (El-Aref 2002). Therefore, national and international archaeological missions were strongly encouraged to shift their focus from the Valley to the Delta.

The situation in the Western Desert has also changed in the last few decades: the DOP (Dakhleh

Oasis Project), founded in 1978, has been carrying out comprehensive investigations of the Roman period living quarters at Amheida and Ismant el-Kharab whilst focussing on the detailed analysis of single buildings: houses B1 and B2. New York University has been investigating the site of Amheida since 2004 (Davoli 2012: 263). In addition to the topographic survey that mapped the ancient settlement, these investigations analyse the architecture of various houses and reveal aspects of daily life in the Oases.

A further problem is that, although both research and salvage excavations occur, their results are not always published, and the excavation reports are not disseminated; this means that much data is not rendered available, and we cannot attempt a reliable quantification (Van Minnen 1994: 228).

1.3.6 – Overview of archaeological sites with excavated Late Roman houses

This section includes a record of sites where one or more houses —mostly Late Roman in date, although some houses of the Roman periods are also included— were excavated in Egypt (Table 1).[17] Figure 6 illustrates the distribution of sites with investigated remains throughout the country but does not provide a qualitative or quantitative representation; high numbers of houses were excavated at some sites, whereas at others, limited specimens were unearthed, but often the latest excavations focus on individual buildings to allow for a thorough investigation. This list aims to offer an overview of the distribution of Late Roman houses excavated so far and does not presume to be exhaustive as not all excavated results are published. In his thesis, Depraetere (2005: 34) had included a short list of sites where post-Pharaonic houses had been excavated but not published.

While the dataset is not exhaustive, it allows inferring some observations. The sites are distributed throughout the country; however, they do not cover all regions of Egypt —data from the Eastern Desert and the coast of the Red Sea, as well as the Sinai peninsula, is missing, despite the existence of settlements and operative archaeological missions (for instance, Mons Claudianus and Berenike). Instead, one can note a cluster in the Fayum. Several sites in the Delta figure in the list, but many represent individual houses that were not investigated in depth. The data from some of the houses from the listed sites is used for cross-comparison in subsequent chapters of this thesis, and it pertains mainly to the houses in the Fayum —especially Karanis— and the Dakhleh Oasis; the former's sites underwent previous large-scale excavation whereas the latter's sites are currently undergoing detailed small-scale excavations on individual houses.

[17] Most of the bibliographical references for the sites indicated in the map are referred to throughout the thesis, except for Armant (Mond and Myers 1934), Edfu (Bruyère et al. 1937; Michalowski et al. 1938, 1950), Hermopolis (Roeder 1959), Karnak (Jacquet 1991; Thiers and Abdel Aziz 2016), and Philae (Grossmann 1980).

Table 1 List of sites with documented remains of Roman/Late Roman houses. The columns to the right provide the sites' WGS 84/UTM coordinates.

Name	Location	Ancient name	E	N
Abou Mena	Delta	/	180811.289	3417705.812
Al Mina	Delta	Marea	180723.646	3433865.138
Alexandria	Delta	Alexandria	205078.716	3455409.705
Amheida	Dakhleh Oasis	Trimithis	85602.447	2845535.305
Armant	Nile Valley	Hermonthis	454241.864	2833945.13
Aswan	Nile Valley	Syene	489491.946	2664061.836
Batn el-Harit	Fayum	Theadelphia	263451.159	3248915.07
Dimeh es-Seba	Fayum	Soknopaiou Nesos	274116.173	3269440.881
Douch	Kharga Oasis	Kysis	267312.806	2718883.198
Edfu	Nile Valley	Apollinopolis Magna, Etbo	487106.684	2762423.617
Ehnasya	Nile Valley	Heracleopolis Magna	299253.538	3219195.838
El-Ashmunein	Nile Valley	Hermopolis Magna	283509.396	3075012.303
Elephantine	Nile Valley	Elephantine	488415.297	2663598.598
Ismant el-Kharab	Dakhleh Oasis	Kellis	107392.868	2827904.389
Karnak	Nile Valley	/	465715.66	2844475.484
Kellia	Delta	/	248313.135	3407726.088
Kom Abu Billo	Delta	Terenuthis	290452.932	3368350.906
Kom al-Ahmer	Delta	Metelis?	256816.103	3450321.139
Kom Aushim	Fayum	Karanis	296656.919	3267138.375
Kom Darb Gerza	Fayum	Philadelphia	312389.392	3262570.683
Kom el-Farain	Delta	Buto	284874.257	3453301.412
Kom el-Geif	Delta	Naukratis	269897.185	3420754.178
Kom el-Giza	Delta	Schedia	231966.097	3448357.461
Kom el-Nugus	Delta	Plinthine	168829.648	3429611.563
Kom Ishqaw	Nile Valley	Aphrodito	343266.1	2970011.492
Kom Medinet Ghoran	Fayum	/	265032.915	3232560.174
Kom Umm el-Athl	Fayum	Bakchias	307017.399	3269562.982
Marina el-Alamein	North Coast	Leukapsis or Antiphrae	118430.261	3416874.867
Medinet Habu	Nile Valley	Djeme	459931.367	2844819.435
Medinet Madi	Fayum	Narmouthis	270739.858	3231710.798
Memphis	Delta	/	331850.605	3303833.581
Philae	Nile Valley	Philae	488334.068	2656427.685
Qasr el-Banat	Fayum	Euhemeira	261520.226	3251895.8
Qasr Qarun	Fayum	Dionysias	249474.701	3255713.839
Tell Atrib	Delta	Athribis	326059.069	3372326.091
Tell Basta	Delta	Boubastis	357725.209	3382881.858
Tell el-Balamun	Delta	Diospolis d'aval	364098.549	3459226.222
Tell Farama	Delta	Pelusium	456131.68	3434237.259
Umm el-Baragat	Fayum	Tebtunis	282160.065	3221965.757

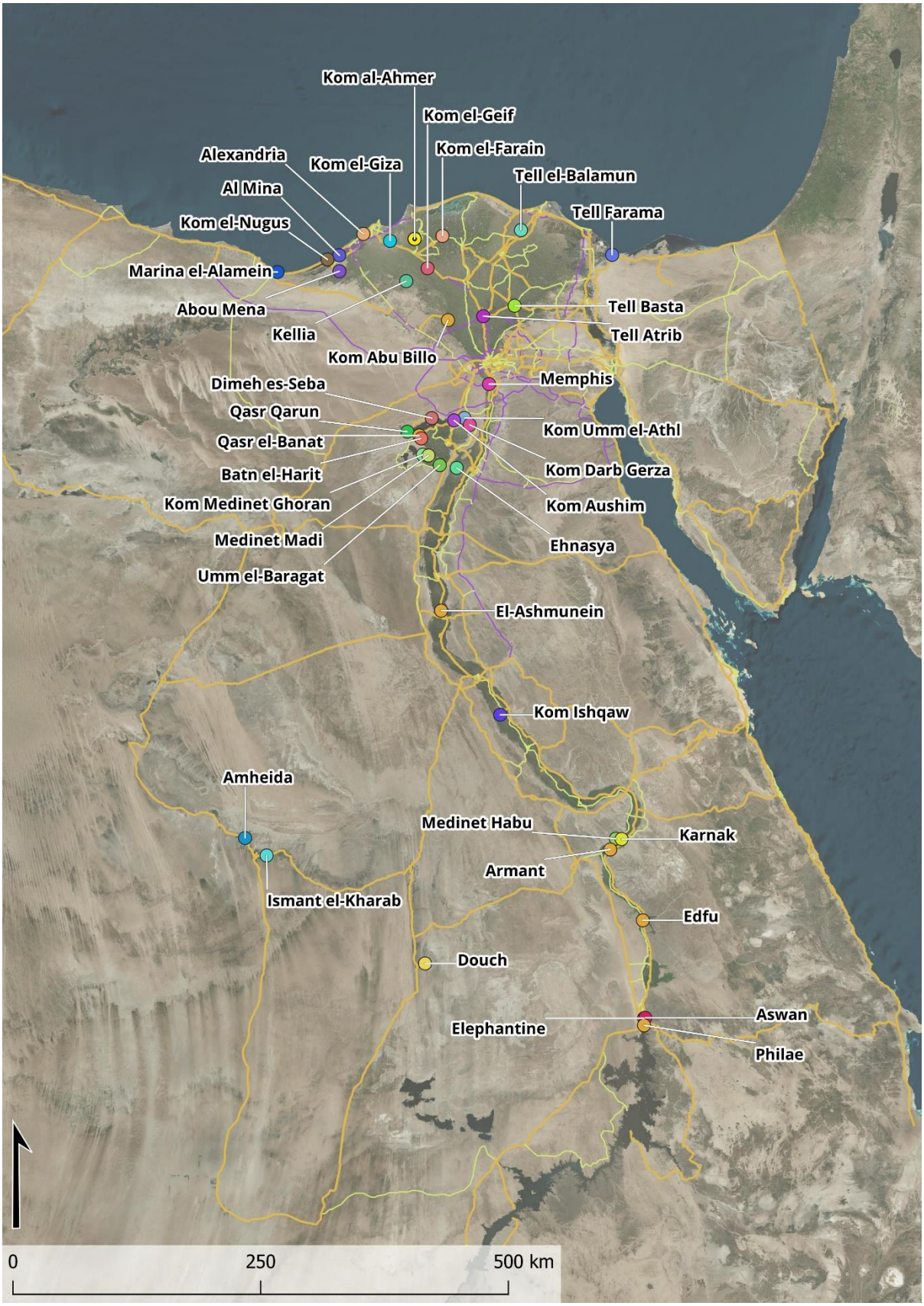


Figure 6 Location of the sites in Egypt where Late Roman houses have been excavated; the coloured lines indicate the primary road network (background image Bing Maps, 2022).

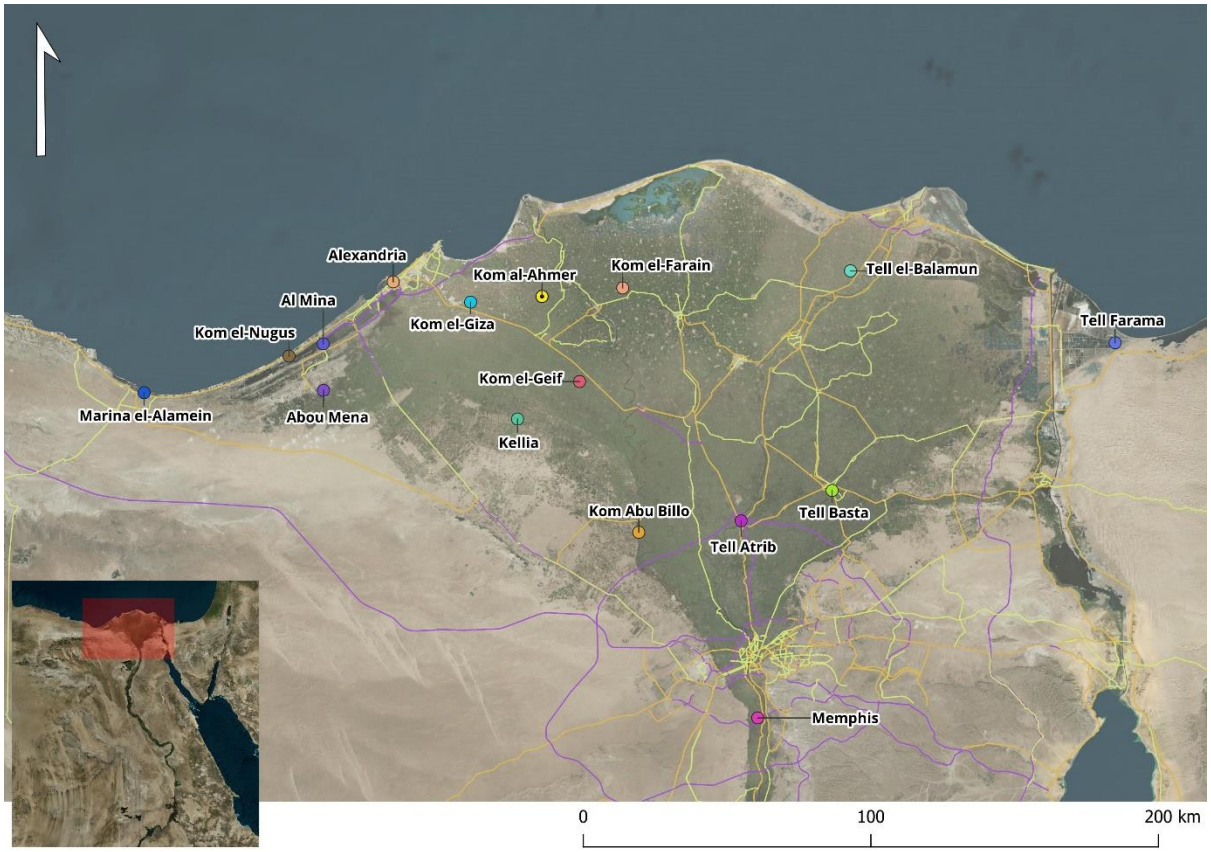


Figure 7 Location of the sites in the Delta; the coloured lines indicate the primary road network (background image Bing Maps, 2022).

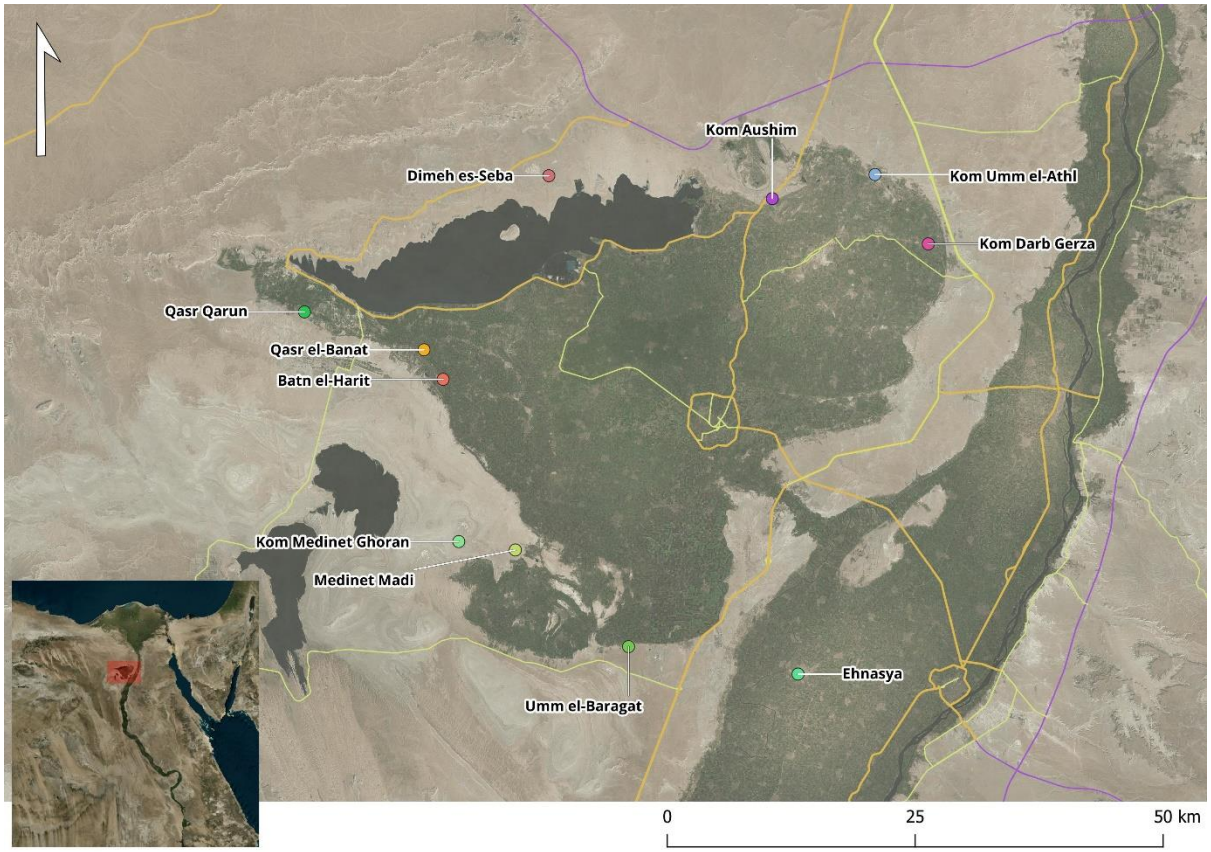


Figure 8 Location of the sites in the Fayum; the coloured lines indicate the primary road network (background image Bing Maps, 2022).



Figure 9 Location of the sites in the Dakhleh and Kharga Oases in the Western Desert; the coloured lines indicate the primary road network (background image Bing Maps, 2022).



Figure 10 Location of the sites along the Nile Valley; the coloured lines indicate the primary road network (background image Bing Maps, 2022).

1.4 – Kom al-Ahmer (Mahmoudeya, Beheira, Western Nile Delta)

1.4.1 – Overview of the site

Kom al-Ahmer is located in the province of Beheira, approximately 50 km east-southeast of the city centre of Alexandria, c. 26 km south of the city centre of Rosetta (Rashid), c. 35 km south-southeast of the mouth of the Rosetta's branch of the Nile, and about 12 km north of the city of Damanhur. It is located about 15 km southeast of Lake Idku, whose modern extent has much decreased compared to its past one (Livaditis 2019: 25–6); Figure 11 to Figure 17 denote its shifting extent.

The site was first referred to as Kom al-Ahmer on the 1930s cadastral map of the Ministry of Agriculture (Kenawi and Rossetti 2013: 171). The name translates from Arabic to English to 'the red mound;' the locals bestowed the name due to the reddish colour of the mound resulting from the high quantity of fragmented fired bricks (Kenawi 2014: 106).[18] The site was depicted in El-Falaki's 1866 map 'Carte des environs d'Alexandrie' (Figure 11) where it is called Com el-Nasr. It was mentioned in the 1910 list of archaeological mounds compiled by the Antiquities Service, under the *markaz*[19] of Abou Hommos —the *markaz* of Mahmoudeya did not exist at that time. It figured in the 1914 Topographic map as Kom el Nos (Figure 12), the 1919 Atlas Map of Egypt as Kôm el Nuşş el Kebîr (Figure 13), the 1934 topographic map (Figure 15), and the 1950 topographic map (Figure 16). The extension of Lake Idku is indicated in these maps, with the lake progressively retreating. Regarding the conditions of the environment, in the 1914 topographic map and 1919 Survey of Egypt's Atlas Map, the areas surrounding the site are depicted as marshy (Figure 14); instead, the 1934 map depicts agricultural fields to the south of the site which surround the site in the 1950 topographic map. Though the area south of lake Idku was portrayed as being constituted of salt marshes in John Bartholomew's 1956 map, the marshes do not seem to fully reach the area of Kom al-Ahmer (Figure 17).

[18] See Kenawi (2014: 106, 2019a: xxii–xxv) for the historical research of the site.
[19] The literal translation is 'centre' and it is used to designate administrative country subdivisions.



Figure 11 Detail of El-Falaki's 1866 map. Kom al-Ahmer is visible together with Kom Wasit on the top right corner, indicated as Com el Nasr, 'the village of the victory' (Kenawi 2019a: xxiii, figure xi). See Figure 45 to view the extent of the map's right side: a fraction of the Rosetta brand of the Nile is visible northeast.



Figure 12 1914 topographic map; the location of Kom al-Ahmer and Kom Wasit are indicated by the red rectangle, and Kom al-Ahmer is referred to as Kom el Nos, 'the kom of the half' (Kenawi 2019a: xxiii, figure xii).

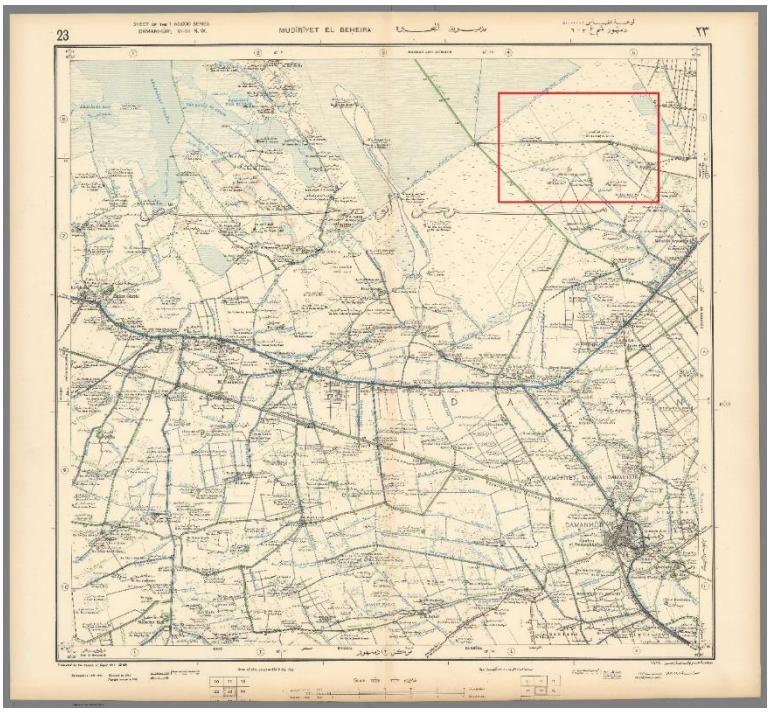


Figure 13 Sheet 23 (Damanhur) of the Atlas Map of Egypt (Ministry of Finance, Egypt, Egypt. Wizarat al-Maliyah and Egypt. Maslahat al-Misahah 1919). The city of Damanhur is visible on the lower right side; the location of Kom al-Ahmer and Kom Wasit is enclosed in the red rectangle.

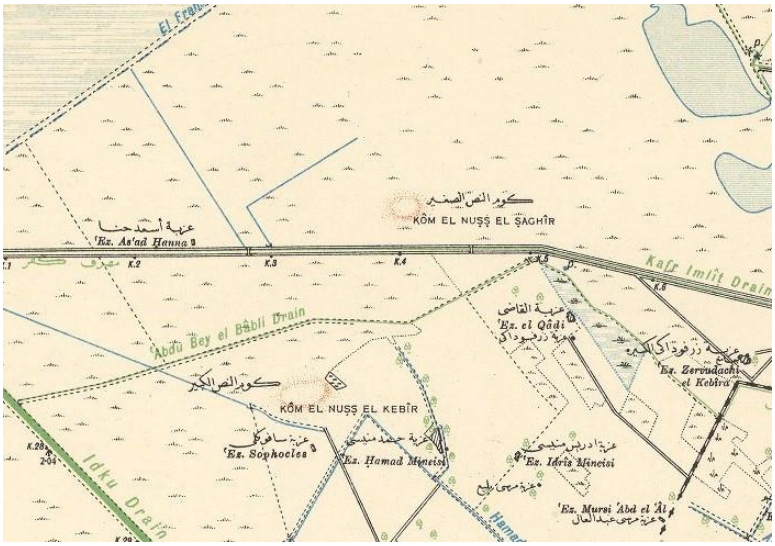


Figure 14 Detail of Figure 13 that shows a close-up of the location of Kom al-Ahmer and Kom Wasit. Kom al-Ahmer is indicated as Kôm el Nuṣṣ el Kebir.

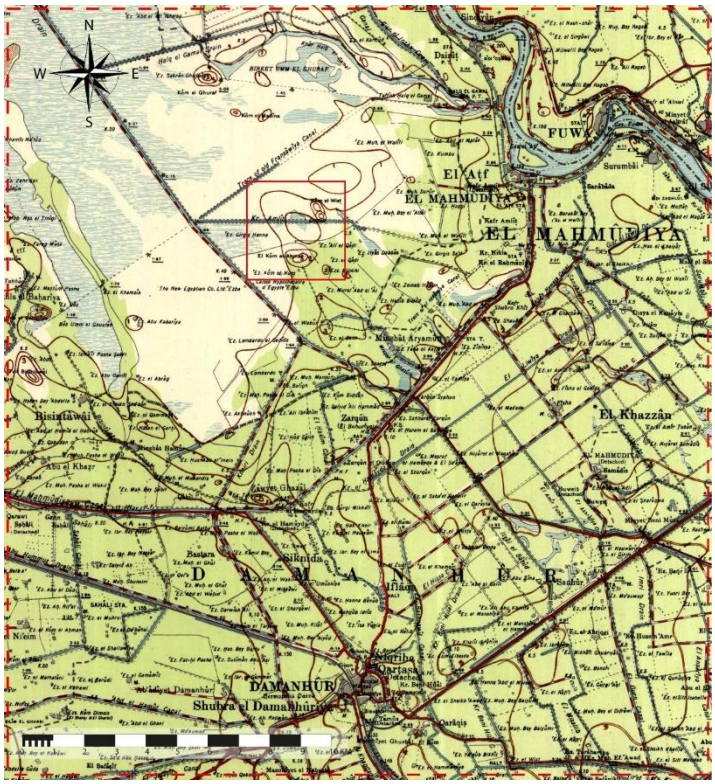


Figure 15 1934 topographic map; the location of Kom al-Ahmer and Kom Wasit are indicated by the red rectangle (Kenawi 2019a: xxiv, figure xiii).

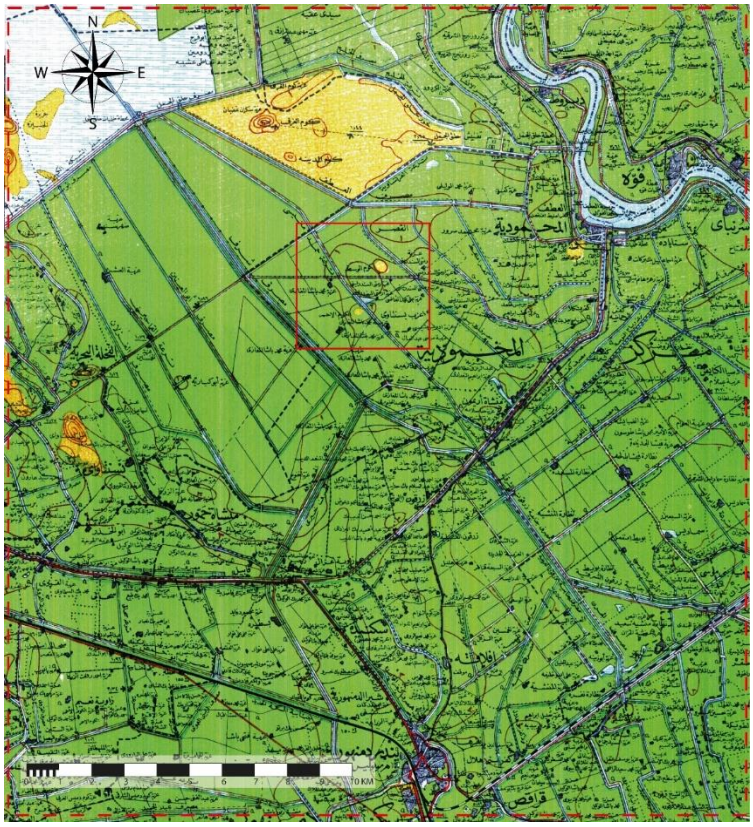


Figure 16 1950 topographic map; the location of Kom al-Ahmer and Kom Wasit are indicated by the red rectangle (Kenawi 2019a: xxiv, figure xiv).

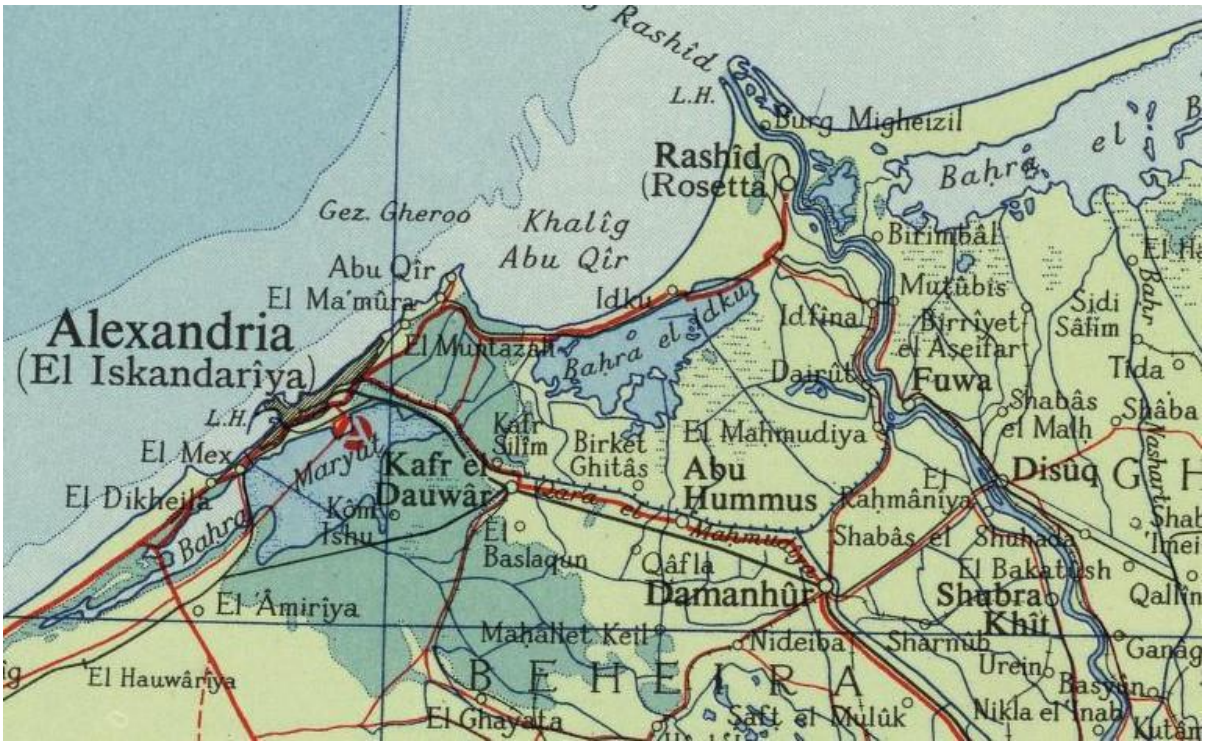


Figure 17 Detail of the region of Beheira; the area southeast of Lake Idku is represented as marshy (Bartholomew 1956).

The site underwent extensive alterations in the 1900s, the most evident being the removal of *sebakh*, Nile silt, by the *sebakheen* (see Figure 18). The finding of the Roman bath complex was a result of these digging activities.

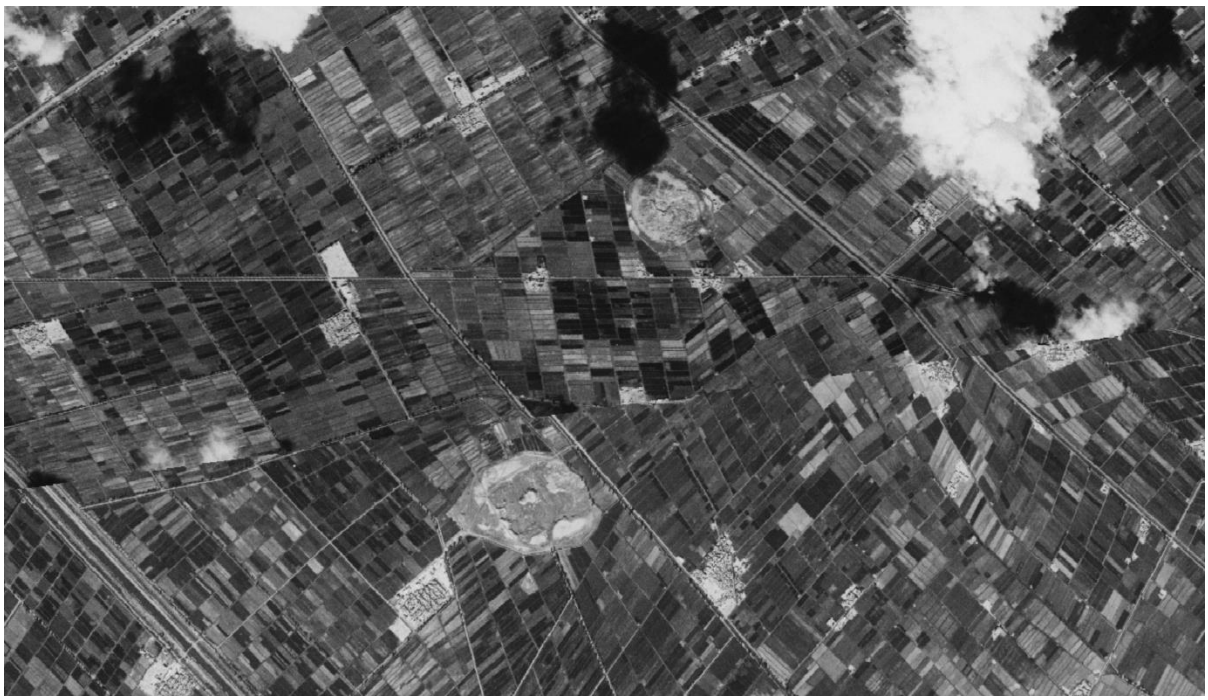


Figure 18 Corona satellite image of the 1960s showing the area of Kom al-Ahmer (to the south at the bottom of the image) and Kom Wasit (to the north).

The site presents an extensive accumulation of soil amidst the agricultural fields periodically under cultivation for wheat, maize, rice, and cotton (Figure 19). A network of irrigation and drainage canals crosses the fields. The nearby village, Rawdat al-Mughazi, was founded in the late 1930s. In the late 2010s, the village's northern edge stood about 125 m southwest of the site's southwestern side,[20] with only a few houses located beside the site. As of today (2022), more of the inhabitants' houses approach the western contour of the site. Although the administration recognises it as an archaeological area, it is not protected from trespassing. The site is crossed daily by pedestrians and various means of transportation, from donkey carts to large tractors, to reach the road Dawward - Ezbat Al Eisswia Kafr road —the closest asphalted road— where locals can find public transport for the town of Mahmoudeya and other nearby localities. Therefore, the site is marked by beaten earth roads that cross it from east to west and north to south on its sides. The roads avoid the highest mounds in the central and eastern parts. The eastern mound is used as a cemetery —and thus inaccessible for research purposes— whereas the central mound is surrounded by a low area (most probably the areas where the *sebakheen* had concentrated their activities), and there is a difference of c. 9 meters in elevation with the top part of the

[20] Compare the Google satellite images from 2007 to 2021.

central mound. The site is currently used as a dumping ground for modern waste in the absence of an established garbage collection service.



Figure 19 Satellite image of the site of Kom al-Ahmer (south) (Kenawi 2019a: xviii, figure ii).

Until 2012, the site had undergone limited archaeological investigation. The first recorded archaeological visit to Kom al-Ahmer was undertaken by Achille Adriani (1940: 63), director of the Graeco-Roman Museum of Alexandria, who visited the site in 1935 when the site was undergoing the excavation activities of the *sebakheen*. Adriani did not write much about the site or the reasons for his visit, though Kom al-Ahmer was described as one of the inspectorate's most 'fertile' localities in terms of discoveries. The report listed some of the collected finds: a small Hellenistic portrait, possibly of a Ptolemaic queen, a fragmented bronze statue of a woman, and a Hellenistic marble head of a man.[21] Adriani recounted in detail the appearance of the statue's head but did not mention anything about the context of the find.

During the summer of 1942, Abd el-Mohsen el-Khashab conducted a short excavation season on behalf of the Egyptian Antiquities Department, which was the first archaeological excavation at the site. The *sebakheen* were operating at the site, whose extension measured between 60 and 70 feddans,

[21] Catalogued with the inventory number 26062 in the Graeco-Roman Museum in Alexandria.

approximately 25.2 and 29.4 hectares[22] (el-Khashab 1949: 28). The site's current area (as of 2022), including the mound with the modern cemetery and the area excavated by the Ministry in 2008, part of which has been already built over, measures roughly 23 ha (0.23 km^2) (further analysis on the site's extension is discussed in *Section 2.4 – Kom al-Ahmer in the Late Roman period*). El- Khashab (1949: 35–6) recounted that the *sebakheen* activities had been destroyed all the structures of the central part of the site, and only damaged remains were left: brick and stone basins, mudbrick structures, marble and stone fragments of columns, and large pottery vessels (Figure 20).

The mission of el-Khashab documented the remains of the imperial Roman bathhouse at Kom al-Ahmer, a building made of fired bricks, mortar, and plaster with mud-brick elements uncovered by the *sebakheen* digs (Figure 21). The dimensions of the bathhouse are comparable to the bathhouse at the site of Kom el-Dikka, in Alexandria (Kenawi 2014: 109). The structure was dated per the numismatic finds, which ranged from imperial Roman to Byzantine in date: the oldest coin found in the context of the bathhouse was a billon denarius (four drachmae) of Claudius, Nero, etc. from a series known as Alexandrian. The most recent coin found was a gold dinar of the year 154 of the Hidjira (CE 771) (el-Khashab 1949: 30). El-Khashab remarked on the remains of more bathhouses present in all the areas where the *sebakheen* were digging, for instance, a Greek-style bath, found to the east of Kom al-Ahmer, dated to the Ptolemaic period by the associated coins, the oldest of which dated to Ptolemy II or III (el-Khashab 1949: 30, 36).

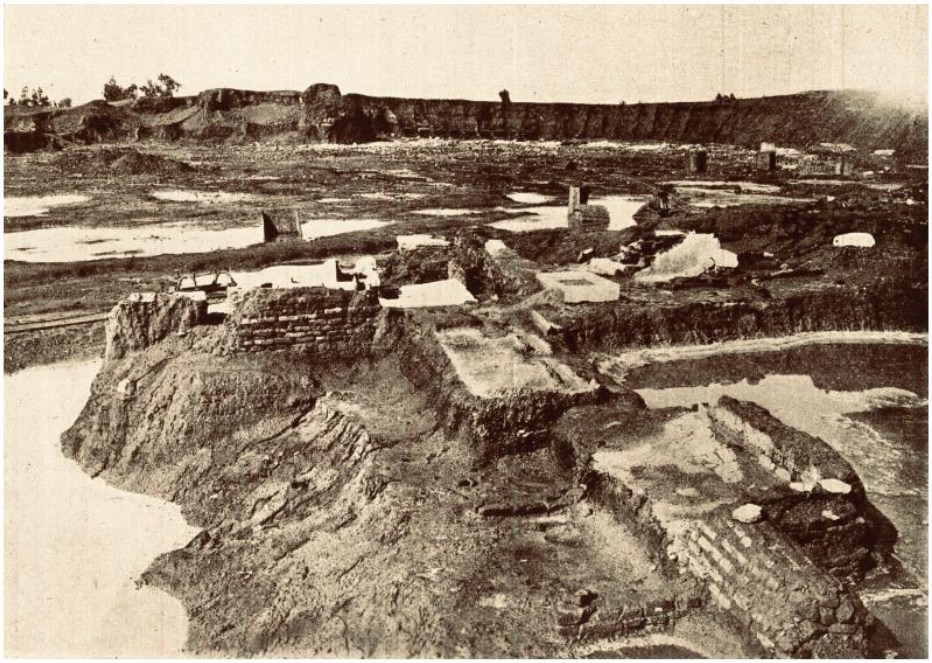


Figure 20 View of structural remains exposed by the *sebakheen* activities at Kom al-Ahmer during the 1940s (el-Khashab 1949, plate IV).

[22] 0.252 and 0.294 km^2, considering that 1 feddan (fed) is equivalent to 0.420 hectares and 1.037 acres (World Bank 2001).



Figure 21 The plan of the Kom al-Ahmer Roman baths (el-Khashab 1949, plan 3) (above) and the plan's position within the site (below) overlaid on a Google Earth satellite image (Google Earth, CNES / Airbus 2022). The position of the excavation unit where the case study house lies in indicated by the yellow rectangle.

The next recorded archaeological visit to Kom al-Ahmer underwent in 2007 when the site was surveyed by Wilson and Grigoropoulos (2009: 179–81) as part of the EES Delta Survey project. Mariette de Vos and Mohamed Kenawi visited the site the following year as part of the Beheira Survey conducted by Kenawi (2011: 187–200). In January and February 2008, the former Supreme Council of Antiquities (now the Ministry of Tourism and Antiquities) performed emergency excavations on the southwestern part of the site in an area of approximately 1.3 hectares. Following this emergency investigation, the area was deemed non-archaeological and was conceded to a local businessman (Kenawi 2014: 107; Kenawi and Rossetti 2013: 171).

Since 2012, the site has been investigated by the Kom al-Ahmer – Kom Wasit Archaeological Project, an Italian mission from the University of Padova and the Italian Egyptian Archaeological Centre (CAIE) (see volumes I and II of the excavation monograph Kenawi 2019b; Asolati, Crisafulli and Mondin 2019). The archaeological project carried out a topographic survey (see Hinojosa Baliño 2019) that allowed us to observe how the *sebakheen* activities influenced the site's modern topography. The site currently presents a heterogeneous topography of two large mounds, an extensive artificial depression that surrounds the central mound and separates it from the eastern mound. Hinojosa Baliño (2019: 49) calculated that the extension of the central area of the site, which was heavily dug, amounted to c. 74,000 m^2. It is equivalent to almost 30% of the current area of the site (252,000 m^2). Nevertheless, this amount may be even higher if we consider that the *sebakheen* activities could have included the site's western side. The depth reached by the *sebakheen* should also be acknowledged: the site's central mound reaches over 11 m ASL, the area where the case study house's remains were found had an average elevation of 6 m ASL, whereas the preserved elevation of the central part of the site ranges between 2 and 3 m ASL (Marchiori 2019: 190) (see Figure 22). These figures imply that as much as 9 m of stratigraphy were removed. It is unclear how much, if any, was removed from the western side of the site (Marchiori 2019: 189–90).[23]

[23] The western reach of the deep excavation area of the *sebakheen* was partially investigated by the Kom al-Ahmer – Kom Wasit Archaeological Project in 2019, where a 7-metre-long portion of the slope between the mid-level western part of the site and the lower central area was exposed, showing the remains of the cut left by the *sebakheen* activities (Herslund 2019a).

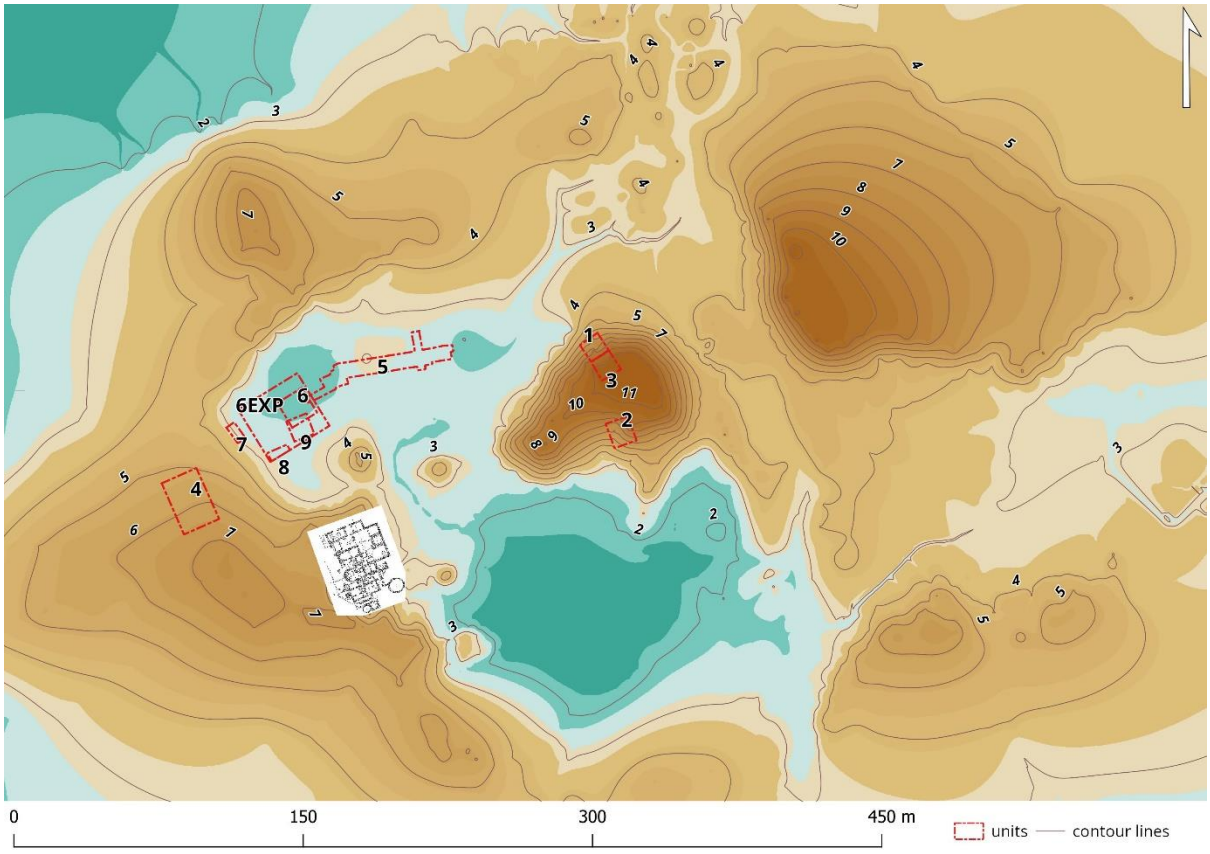


Figure 22 The digital elevation model (DEM) of Kom al-Ahmer, with the contour lines indicating the elevation in metres above the sea level and the position of the excavation units. The DEM colours illustrate lower (green) and higher (dark brown) elevations; the labels of the contour lines in the map indicate the metres above sea level. The plan of the Roman bathhouse is visible in black and white.

The project focussed its excavation efforts on three different areas: the top levels of the central mound to explore the latest preserved occupational layers; the area northwest of the central mound to study one of the lowest elevations on site; an area on the western side of the Kom, where Late Roman layers were identified (Figure 23). In addition to the presence of the Roman imperial baths, located approximately 65 m south-east, the remains of a Late Roman stone cistern and other structures in fired bricks were uncovered roughly 200 m east, on the northern slope of the site's central mound, where the highest areas are still preserved (Kenawi and Marchiori 2019a; Kenawi and Rossetti 2013). Other contexts have been investigated, but they either pertain to earlier (Ptolemaic) or later (Early Islamic, with materials dating to the 10th-11th centuries CE) (Mondin 2019: 81, Table 2.18) phases of occupation. These contexts include a sector of Ptolemaic houses and buildings, the remains of a monumental tomb —or possibly of an Early Islamic mausoleum— and a small Islamic cemetery constituted by six simple pit graves (Kenawi and Marchiori 2019b: 286–7).

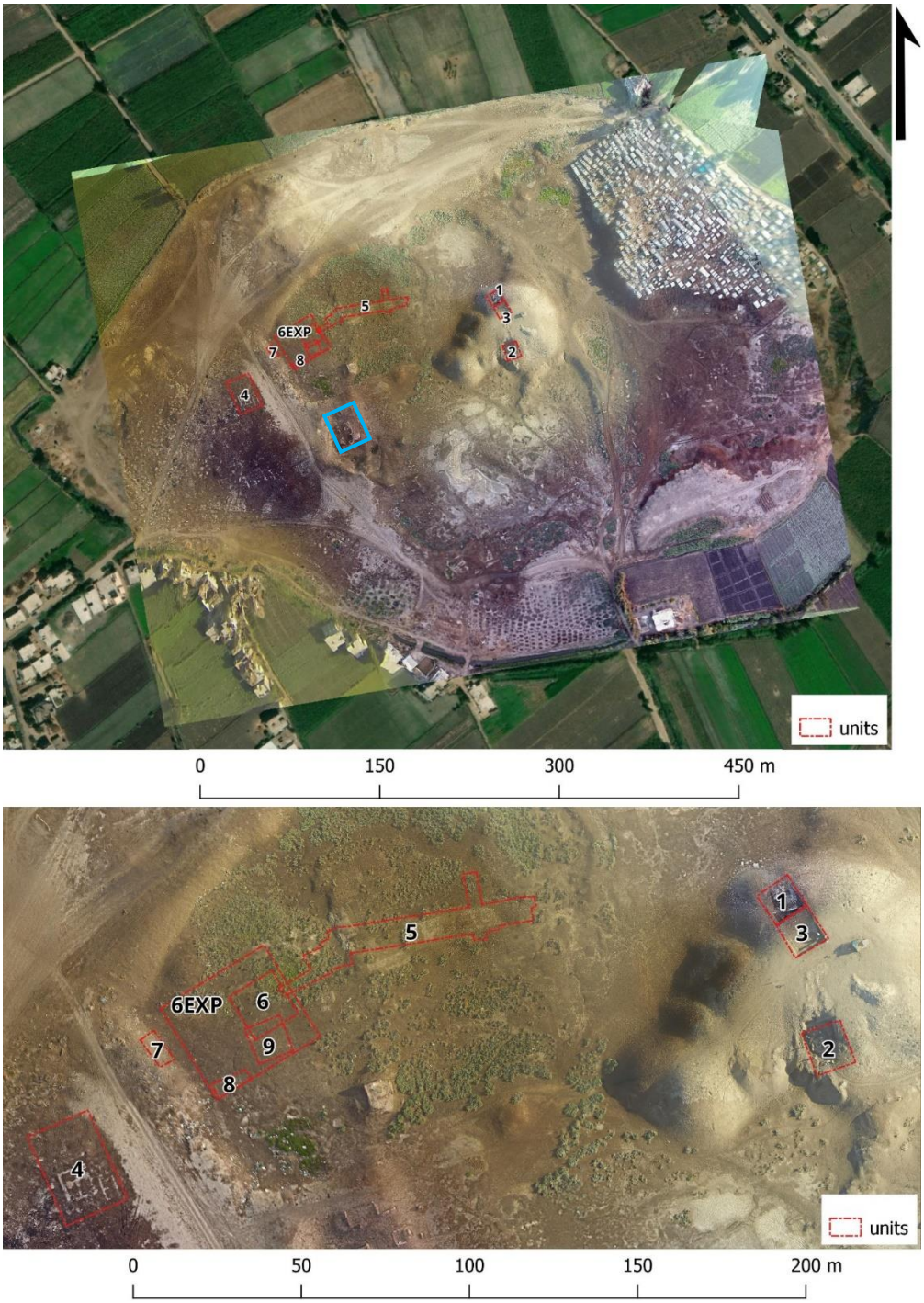


Figure 23 Map of Kom al-Ahmer with the position of the nine excavation units opened by the Kom al-Ahmer – Kom Wasit archaeological project. Unit 4 is the excavation unit where the remains of the Late Roman house were uncovered. The blue rectangle indicates the location of the Roman bathhouse.

The difficulty with settlement sites that have not undergone extensive investigation, such as Kom al-Ahmer, is that we are missing key details of the urban plan and the variety of buildings that composed it. A magnetometry survey was performed at the nearby site of Kom Wasit, but it was not possible to conduct a similar survey at Kom al-Ahmer due to the presence of modern waste on the surface —which includes metallic objects— and the constant passage of vehicles and people who use

the site as crossing path between the fields (Hinojosa Baliño 2019: 49). Therefore, it cannot be said with certainty whether administrative and religious buildings, production areas, and storage structures were present (and at what point in time), as the physical evidence has not been detected so far.

The situation in which the case study house and its inhabitants found themselves is within the western residential sector of a town embedded in the Nile Delta countryside. Some of the structures of this sector have been investigated and are detailed in Chapter 3 – The case study house. The neighbourhood has been understood to have a commercial and domestic nature. The knowledge of the urban organisation of the rest of the site is still very fragmentary: the surface surveys have identified the presence of multiple structures, but their use cannot be ascertained without archaeological excavation.

1.4.2 – Unit 4

There is a large area in the western part of the site that constitutes part of the Late Roman sector of the settlement. The area is delimited to the east by the *sebakheen* excavations and the modern beaten earth road paths to the north, west, and south; this is an area of 2 hectares. The observation of satellite imagery and aerial photographs allows us to note the presence of buried remains of structures. Tens of buildings are visible; there are around 30 structures (Figure 24), but I am reluctant to state a specific number without ascertaining it through archaeological excavation.



Figure 24 Orthophoto of the west-central part of Kom al-Ahmer. The buildings of the Late Roman sector are indicated in pink, whereas the yellow circle indicates the case study house. The blue rectangle indicates the location of the Roman bathhouse.

The buried building was selected for investigation by the archaeological project to expand the current knowledge of the archaeological site; at the time (2014), three excavation units had been investigated, and they were all located on the top eastern part of the central mound. The western plain of the site provided a different opportunity for investigation in terms of ground elevation and site sector. In addition to this, it was one of the few areas where it was possible to clearly distinguish the traces of buried walls enclosing at least three rooms. Several other buried remains are visible in the aerial photographs produced during the topographical survey of the site, and this specific building stood out more clearly (Figure 25). The case study house was selected for excavation because its remains were the ones that could be seen more clearly.



Figure 25 View of part of Unit 4's 'neighbourhood' with visible buried remains of structures (photographer facing southwest)' the pale brown stripes are walls and the redder areas fill or streets.

The area of Unit 4 was thus investigated during the topographic survey, and it presented as a large plain with a gentle rise towards east. The ground is covered with archaeological materials, most of which are pottery sherds, but glass shards are also frequently noted. The survey of the site in the early morning and following light rain, as well as the observation of the orthophoto of the entire site, allowed us to observe differences in colour on the ground's surface. Humidity is displayed differently by regular soil deposits and mudbricks, and lighter colouring denotes the possible presence of mudbrick (see Figure 25); several mudbrick walls were identified in this way.

To summarise, the site of Kom al-Ahmer is situated near an ancient lake in modern agricultural lands, and only a small part of the site has been investigated, until now, out of what was a large settlement area. In order to investigate the geographical environment in detail, the following chapter will provide the background to understanding factors that may have affected the house construction, given the impact that the river and its environment had on human livelihood.

Chapter 2 – Geographical, Environmental, and Historical Background

[…] paradoxical image of the ancient Nile Delta, which ancient evidence portrays as both an attractive and a repellent space.
Katherine Blouin (2014: 23), Triangular Landscapes: Environment, Society, and the State in the Nile Delta under Roman Rule

Human beings cannot survive without the environment (Van Wormer and Besthorn 2011: 302) and they are closely connected form the outset; therefore, the environment must be considered when studying a settlement and its inhabitants. The study area of this research is the Western Nile Delta (Figure 26) and we should look at the Delta's geographical and environmental background to understand this region and its influence on the archaeological remains. The Delta is unlike other regions in Egypt, as it is a floodplain geomorphologically distinct from the Nile River Valley; this could have entailed potentially different management of living space from the rest of Egypt. It is a matter that has not been thoroughly approached since fewer sites in the Delta have been investigated than in the Valley; this has in part depended on a more substantial research focus on the Valley sites, triggered in turn by the annual Nile inundation, which had rendered silt-laden Delta sites inaccessible until the construction of the Aswan Dam in the 1970s. Nevertheless, interest in the Delta sites has grown since then, and it is now possible to begin asking questions regarding the relation between domestic architecture and environmental conditions.

It is pivotal to underline that this inquiry is in no way aiming to adopt a purely deterministic viewpoint and is conscious of the plethora of social, cultural, and economic variables. Nevertheless, these variables are connected to the environmental and geographical situations; while I do not have the intention to weigh them against each other, I reckon that it is significant to consider the environmental and geographical factors, especially in the case of Egypt, where the investigative focus has often favoured specific regions. A recent publication edited by Di Castro and Hope (2015) explored the relationship between housing and habitat in the ancient Mediterranean. Di Castro's (2015: 3–12) introduction reviewing the book's chapters asserts that environmental conditions are not exclusively responsible for choices regarding house construction and organisation and emphasises other determinant factors. I agree with this premise; however, I reckon it is also relevant to acknowledge the diversity of Egypt's environment and explore possible geographic and regional perspectives.

Egypt is in the northeastern area of North Africa, in proximity to the Near and Middle East countries. It is part of the Sahara Desert, flanked to the east by the Red Sea, facing the Mediterranean Sea towards north, Libya and the continuation of the Sahara to the west, and Sudan to the south, from which flows the Nile River into Egypt. The Nile is the only perennial river present in the whole country

and constitutes the primary source of fresh water. Towards the end of the Saharan Neolithic (c. 8800–4700 BCE), the environment of the Egyptian Nile became more suitable for human occupation due to the decrease in the level of floods and rains, whereas the lakes and waterholes in the Sahara began to diminish (Bunbury 2019: 39). Following a long occupation of the Sahara (Manning and Timpson 2014), humans began to leave it to approach Egypt for settling. Egypt stands out in the geographical panorama of North Africa for its strategic position between the African and Eurasian continents, including access to the Mediterranean basin via the Nile River as a transport route and the presence of freshwater attainable from the river and at the Oases. In addition, the Nile River shaped the environment of Egypt and the people inhabiting it in a very profound way that defined their cosmology and reached the realms of economy, culture, politics, and society.



Figure 26 The course of the Nile, from central Africa to the Mediterranean (to the left); satellite view of the Nile Delta with the location of Kom al-Ahmer (upper right); satellite view of Kom al-Ahmer and its surroundings (lower right) (background image Bing Maps, 2022).

2.1 – Geomorphology of the Nile Delta

The Nile Delta has been described as a highly dynamic landscape that developed between 6000 and 8000 years ago during the Holocene marine transgression, which ended between 6,500 and 6,000 years

ago (Williams 2019: 288). There exists evidence of human presence and settlement in the Delta as early as the Neolithic period (6000-3300 BCE), implying that the possible environmental adversities did not outweigh the advantages for subsistence, such as cultivable land, proximity to both fresh and saltwater resources as well as strategic opportunities due to the location of the Delta between Northern Africa, the Levant, the Mediterranean, and Upper Egypt. Lower Egypt became a key area throughout the history of Egypt, namely due to the abovementioned factors that eventually led to specific political and administrative preferences (Blouin 2014: 36; Hassan 1997: 52; Wilson 2018: 44). The Nile Delta's extension currently measures up to 22,000 km^2, constituting 63% of Egypt's cultivable land (Hereher 2009: 182–83) and home to at least 40 million people, almost half of Egypt's current entire population (Stanley and Warne 1998: 797).

The Delta's natural territory was constituted by levees, natural basins and dykes, and alluvial flats, which presented a panorama of lagoons, marshy swamps ranging from seasonal to perennial, low-lying islands, and lower floods and levees than in Upper Egypt (Bagnall 1993: 19; Braudel, de Ayala and Braudel 2001: 166; Scott, Frail-Gauthier and Mudie 2014: 176). Hassan (1997: 65) mentioned wetlands, marshes, and floating thickets extending well into the central Delta. There were more swamps than in Upper Egypt, especially in the northern part. On the other hand, the potential amount of arable land available was more significant than in the Valley; it has been estimated that there could have been double the arable land available in Delta than in the Valley in the Late Antique period (Bagnall 1993: 19; Butzer 1976: 83).[24] The presence of *gezireh* (turtle backs), mounds and flats of sand that the river had not eroded were advantageous for settlement as they provided higher ground above the high flooding level (Said 1993: 70).

A geoarchaeological coring survey was carried out in the area of Kom al-Ahmer and Kom Wasit in 2016 and 2017 to gauge information on the underlying geology, the ancient landscape and the eventual presence of water bodies or river channels to ascertain how the sites were connected to the riverine transport network of the Delta (Pennington 2019: 56–66) (Figure 27). Pennington's survey determined that the site was located over the eastern levee of a minor Nile branch (Figure 28) and that ancient river channels were present immediately west of Kom al-Ahmer and between it and Kom Wasit. Smaller channels would probably have interconnected these channels (Pennington 2019: 65).

[24] Table 4 in Butzer 1976 illustrates a hypothetical demographic development of Egypt between 4000-150 BCE in terms of cultivable land and population numbers in the Valley, the Fayum, the Delta, and the Desert.

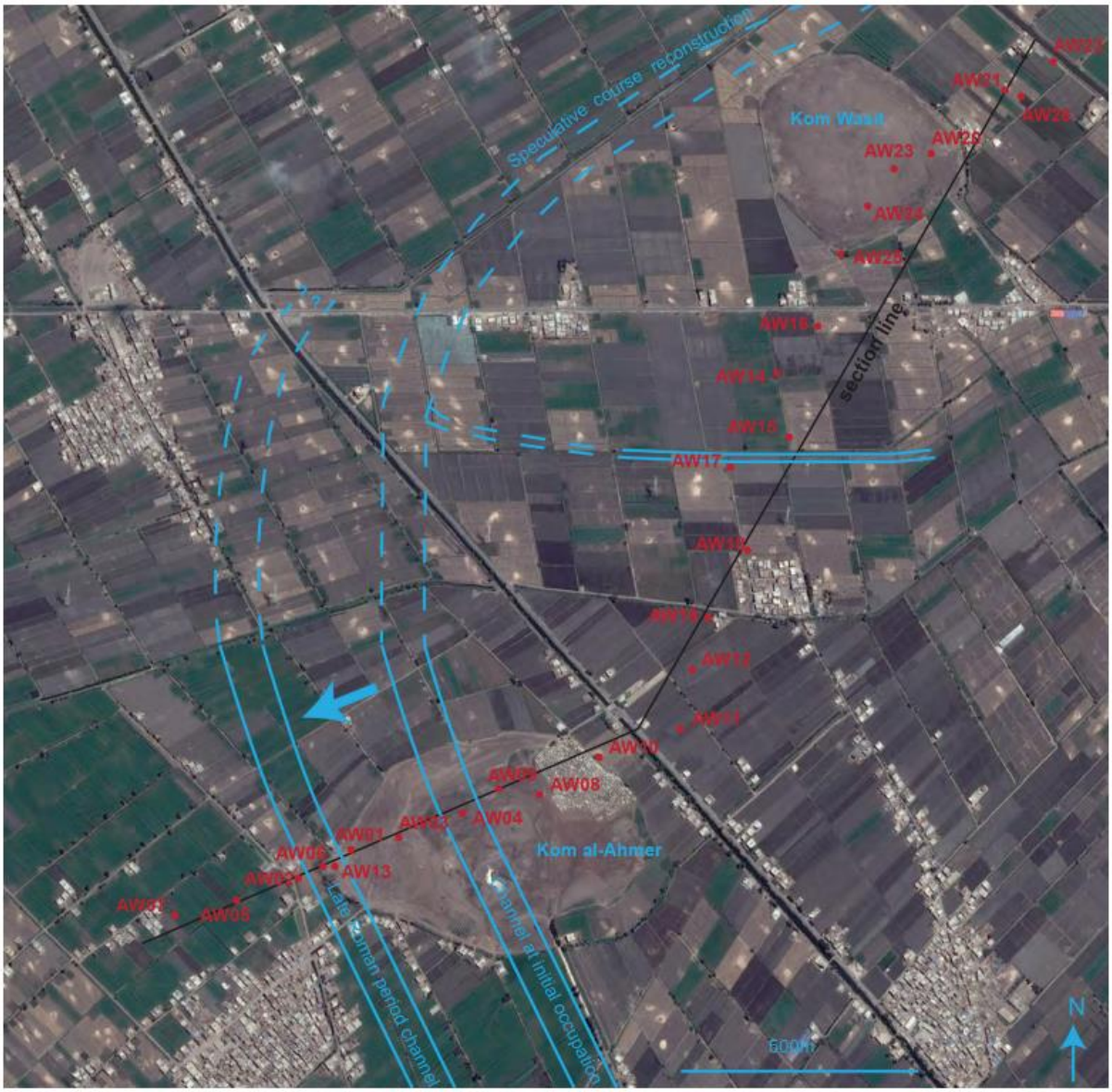


Figure 27 Satellite image of the area of the sites with indications of the position of the auger drills (in red) and the location of the river channels remains detected through the auger survey (Pennington 2019: 57, figure 4.2).

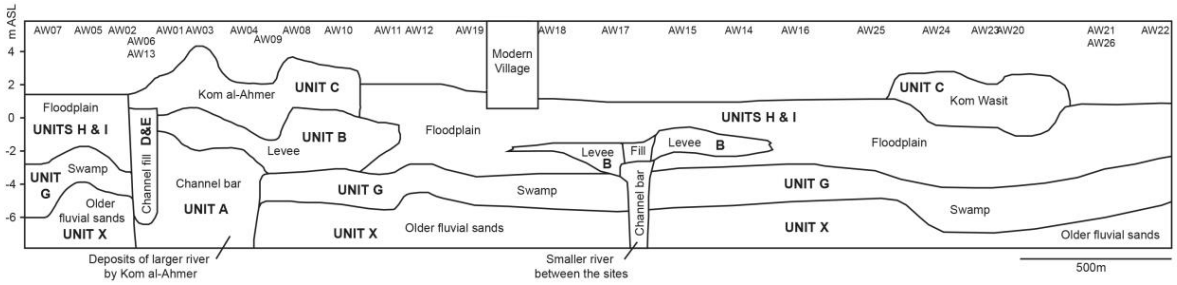


Figure 28 Pennington's interpretative cross-section from the auger results (see the section line in black in Figure 27) (Pennington 2019: 60, figure 4.4). Kom al-Ahmer lies over a river levee.

While some argue that the conditions between the Delta and the Valley might not have been so distinct, as the former would have been divided by the waterways and geological formations (Bagnall 1993: 19), others agree that the geomorphology of the different Egyptian regions —Delta, Valley, and Fayum depression— played a pivotal factor with regards to livelihood management and cultural development in each respective area (Butzer 1976: 39; Hassan 1997: 52). In general, the Nile Delta differs from the other regions of Egypt because it is a river delta; it is indicated as a seasonal wetland in the Nile Basin Resource Atlas (Nile Basin Initiative 2016: 33). The Valley and the Delta constitute distinct elements that distinguish themselves spatially, both in area and form, but because they are part of the same system they shared a similar anomalous situation (Butzer 1974): the periodical inundation.

The formation and maintenance of the fertile floodplain were dependent on the Nile inundation, an environmental phenomenon with which Egyptians co-existed until the 1970s. The Nile's annual flooding phenomenon depended on the yearly monsoons, which would generate heavy precipitations on the Ethiopian highlands during May-August. The annual flood affected and changed the environment, providing fertile lands in an overwise desert area. The river's capacity would be overtopped, and the excess water would overflow, changing the landscape's appearance for several months; the inundation would have reached 1 m in the area of Kom al-Ahmer (Cooper 2014: 110; Pennington 2019: 65) and in general it could take more than a month for the excess water to evaporate and recede (Bunbury 2019: 47).[25] Following the inundation, the areas that had been flooded would retain a layer of fertile black silt. Figure 29 provides an idea of how the environment would have looked like during the inundation: the fields would have flooded, creating an 'artificial sea' that would have isolated settlements as islands, though the dykes would have possibly stood higher than the water level, thus channelling or retaining the water. It is interesting to note the water's proximity to the village's buildings.

[25] The Nile's effect on the landscape was noted by Strabo (1932: XVII, 3, 9): 'there was need of this accurate and minute division on account of the continuous confusion of the boundaries caused by the Nile at the time of its increases, since the Nile takes away and adds soil, and changes conformations of lands, and in general hides from view the signs by which one's own land is distinguished from that of another.' Strabo's words refer to the landscape's degree of mutability imposed by the Nile's inundation.



Figure 29 The landscape during the flood period. A possible village, or cluster of buildings, is visible to the left, close to the water (1924-30) (Lambelet 2011: 134).

It has been argued that the gentle slope of the Nile in Egypt would have rendered the inundation, north of Aswan onwards, a more gradual and slow event, such as a slow-onset flood (Hinojosa Baliño 2022: 144–177). Therefore, the Nile's inundations were expected and foreseeable; the annual cycle was well known and monitored (Bunbury 2018: 46). Nevertheless, what made the inundations a potential threat to human subsistence were the water levels as both high and low flood levels could have had severe consequences for agriculture.[26] In addition, the inundation did not guarantee that all land would have been fertile and ideal for agriculture.[27]

The Delta's proximity to the Mediterranean Sea subjects it to coastal influence in contrast to the Valley, the Fayum, and the Oases, which mainly interact with the desert environment. An example of this influence was the stabilisation of the Delta's coastline by the decrease in sea level rise in the late Holocene: this led to the creation of separate freshwater and seawater domains that resulted in the

[26] Classical writers (Herodotus 1920, 2.13; Pliny the Elder 1855, 5.10, 18.47; Plutarch 1936, 43; Strabo 1932, 17.3) reported that the ideal flood level, beneficial for the agriculture and livelihood of the population, was 16 cubits at Memphis (the apex of the Delta). One cubit equals 0.524 cm according to Said (1993: 98), about 54 cm according to Hassan and Stucki (1987: 37). Overall, these measurement seems to have been ideal even for the Graeco-Roman and early Islamic periods (Friedman 2008: 1752; Parsons 2007: 82; Said 1993: 97–8).

[27] The Wilbour Papyri (*P.Wilbour*) recorded the land quality of land plots (around 2800) located between Medinet el-Fayum and el-Menia (Middle Egypt). possibly dating back to the fourth regnal year of Ramses V (1146 BCE) (Gardiner 1948; Katary 2005: 137, 141). Dry, waterless would not have been taxed (Antoine 2014; Katary 2005). The papyri from Thmuis, dating to 2nd century CE (*P.Thmuis*) provide another example of land differentials (Blouin 2014: 157–60). Even in this case, non-inundated land would not have been taxed (Menu 2008). For what concerns the early 4th century CE, papyrus *P.Oxy*. XLIV 3205 is the only reference for land typology until now, at least for what concerns the Mendesian *nome*, and it showed the persistence of the *nome*'s agricultural characteristics as well as the application of new land typology under Diocletian following the agro-fiscal reforms (Blouin 2014: 161–69).

wetland's transition to a homogeneous and sparser environment in nutrition and resources, the water transport shifted from being practicable in any direction to becoming easier to perform in a longitudinal sense, and the main settlements began to be placed at the apex of the distributary network (Pennington, Bunbury and Hovius 2016: 195, 203–6). The changes in sea level affected the Delta's coastline morphology; by 2000 BCE, the sea level was about one metre below the current level, and the coastline was quite different from the current one, with the Rosetta coastline between 7 and 8 km inland (Chen, Warne and Stanley 1992) (see Figure 30).

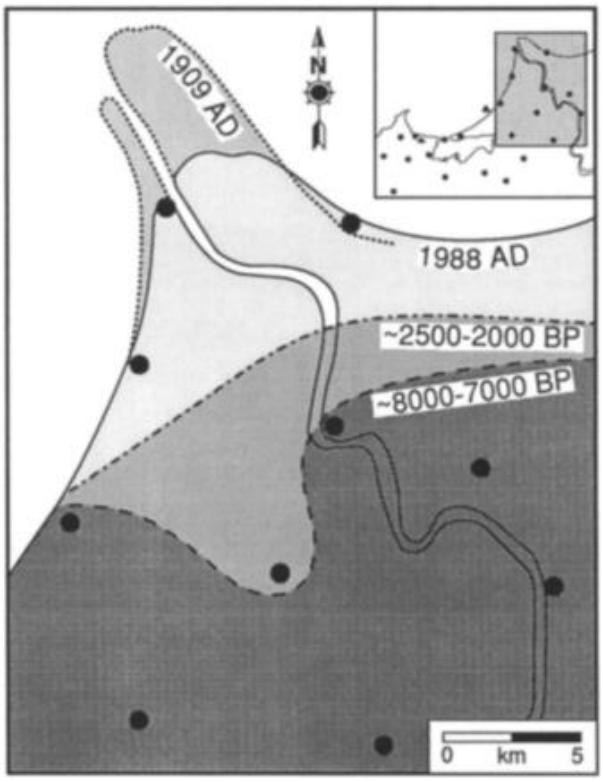


Figure 30 Map depicting the Rosetta promontory in the northwestern Nile Delta illustrating how the shoreline changed throughout the last (Chen, Warne and Stanley 1992: 551, figure 11).

Historical maps and sources indicate that there used to be seven major river branches in the Delta, whereas only two are still active nowadays — the Rosetta and Damietta branches, flowing to the west and the east, respectively. The division of the river into distributaries occurs on the proximal edge of the Delta, and it partly is what gives it its characteristic fan-shaped appearance (Williams 2019: 278). Concerning the Western Delta, it was traversed by the Canopic branch and bordered by the Bolbitine (Rosetta) branch to the east; in addition to the main branches, there was also a network of canals. The Arab descriptions and archaeological remains allow tracing some of the ancient canal routes in the region (Kenawi 2014: 22–4). The Nile branches and canals allowed for a broader area to be flooded within the broad floodplain, and it can be discerned that the Delta may have resembled a large body of water with islands during the flood period (Pennington 2019: 65).

Except for Lake Birket Qarun in the Fayum, the Delta is the only region with lakes. There are four low-lying lakes in the coastal areas, located between low levees and deep basins: Lake Mariut and Lake Idku to the west, Lake Burullus in the centre-north, and Lake Manzala to the east (Figure 31). Their depth does not exceed -1 m ASL (Stanley and Clemente 2017: 5). We know from historical maps and sources that the extent of the shores has changed, and some have considerably reduced. For instance, the lakes appear bigger on Arrowsmith's map from 1844, and Lake Maryut extended well inland[28] (Figure 32). Their size would also be different depending on the period of the year (Blouin 2014: 23). They are referred to as lakes, though nowadays they are lagoons since their waters are brackish to saline. Silt and sand bars resulting from eastward longshore sea currents isolated the lagoons from the sea, and the annual flood would have replenished their waters (Aleem 1972: 200; Said 1993: 68; Williams 2019: 280).

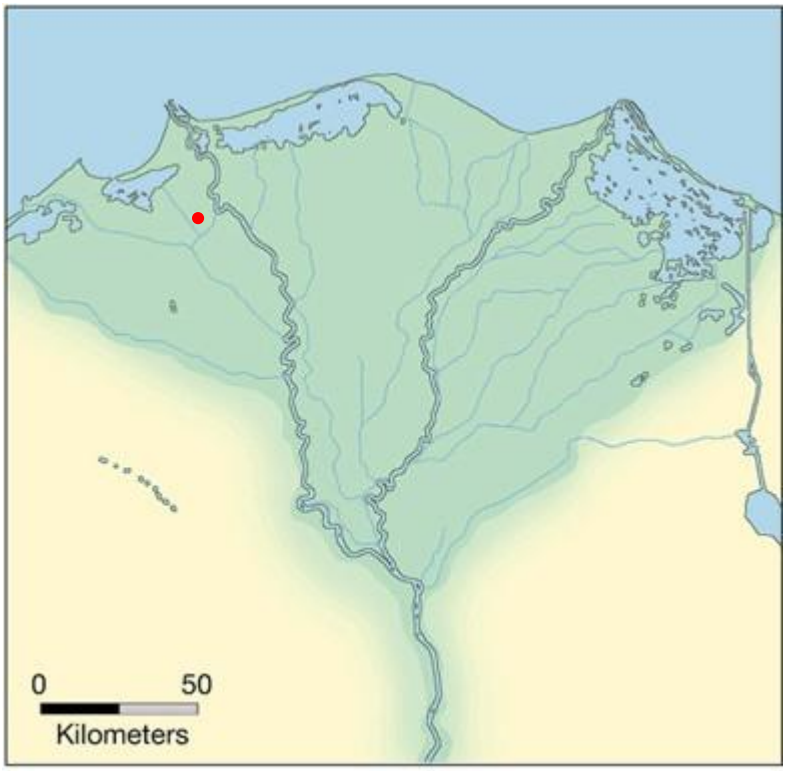


Figure 31 Location of the lakes in the Nile Delta (from left to right): Lake Maryut, Idku, Burullus, and Manzala (source: Copyright 2002 Tasa Graphic Arts, Inc). The red dot indicates the location of Kom al-Ahmer.

[28] This extension of Lake Maryut depended on strategic military reasons carried out by the British in the early 1800s (Kenawi 2014: 11).

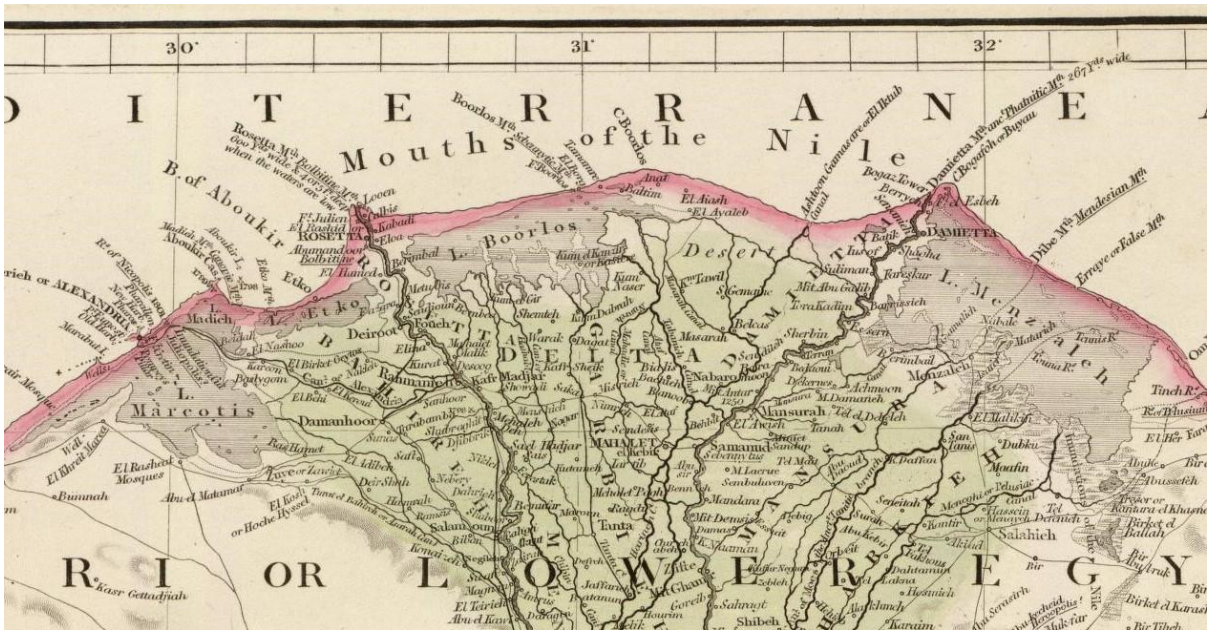


Figure 32 Detail of Arrowsmith's 1844 map of Egypt (published in The London Atlas of Universal Geography, Exhibiting the Physical & Political Divisions of the Various Countries of the World, available in the David Rumsey Historical Map Collection). Lake Maryut (Mareotis) extended further inland than at the present day.

The Delta entered what Stanley and Warne (1998) called its destruction phase[29] about 150 years ago, seemingly triggered by human actions; the rise in population numbers prompted the need for more agricultural land, the reduction of the risks posed by the inundation, and eventually the generation of hydroelectric power. These necessities led to the construction of Mohammed Ali's Delta barrages (1843-1861) and the Aswan dams (the Low Dam was built in 1902, whereas the High Dam was erected in 1964), which halted the annual inundation (Stanley and Warne 1998: 810). Though these modifications of the environment served to secure human subsistence, they became counterproductive in the long run as their long-term effects will be catastrophic on the Delta's sustenance. The rising sea level is not counterbalanced by sediment deposition, as the sediment that would naturally deposit on the shoreline is accumulated in the High Aswan Dam; this dearth of sediment on the coastline leads to further erosion. In addition, more sediment from the Delta is channelled into the Mediterranean Sea through drainage canals. Therefore, the Delta is sinking while the sea level increases (Abd-El Monsef, Smith and Darwish 2015: 1883; Bunbury 2019: 143; Frihy and El-Sayed 2013: 1220–33; Marriner et al. 2013: e69195). Even the agricultural productivity is affected by these processes as the water leaving the High Aswan Dam has been found to have a higher salinity, which decreases soil fertility and harms crop production, to the point of increasing dependence on the use of chemical fertilisers (Abd-El Monsef, Smith and Darwish 2015: 1882).

[29] '[…] interaction of natural factors (tectonic framework, climatic and sea-level fluctuati vial and marine processes) produced a partially sup sequence of Neogene to Quaternary Nile deltas. Evolution of these stacked depocenters involved alternating cons and destruction phases, typical of deltas in general' (Stanley and Warne 1998: 794).

The situation the Delta is in at the moment is of current concern (Shenker 2009); measures were taken to attempt to protect the Rosetta promontory by erecting, in 1988, a 1.5 km sea wall, 6 metres high, as well as a second wall in the 1990s, along the promontory's western (El-Sayed 1996: 230). It is estimated that roughly 30% of the Delta land would be submerged if the sea level rises by 1 metre (Hereher 2011: 1123). This scenario would also put at risk the archaeological sites, already currently under threat due to urban and agricultural encroachment.

2.2 – A wetland environment between the coast and the desert

The previous sections outlined Egypt's environmental situation. It is now possible to consider how people interacted and lived in the specific Delta environment. The Delta's case is compelling as a unique environment in Egypt because it is a wetland landscape (see *Section 2.1 – Geomorphology of the Nile Delta*). Such landscapes are constantly manipulated when inhabited because they need to be stabilised (Butzer 1976: 39; Menotti 2012: 322). Menotti used the term 'alive' when referring to a dynamic natural environment such as a wetland.[30] The interaction between a shifting context and the human response can determine aspects related to livelihoods, such as settlement patterns and space management; this is especially valid for deltaic contexts, where water would have limited space (Béthemont 1987: 24). Consequently, their appearance would undergo modifications —more or less evident— altering how they would have looked if uninhabited. These changes would also depend on the socio-political horizon (Menotti 2012: 320–21).

Kom al-Ahmer is located in the area of the Idku Basin (Figure 33). The basin is separated from the Mediterranean sea by a sandy ridge; it is bordered to the east by the Rosetta branch of the Nile, which also fed it fresh water, and the Canopic promontory to the west (Wilson 2012: 105). The current extension of the Idku lagoon is 125.5 km^2, of which 59 km^2 are constituted by water and aquatic macrophytes, with a depth between 0.1 and 1.4 m (Livaditis 2019: 19).[31] According to Chen, Warne, and Stanley (1992: 554), the ancient extension of the lagoon was around 375 km^2; this change in modern times has resulted from the halt of the annual inundation; however, it must be noted that in antiquity, the lake's isolation, connection, level, and extent would have been influenced by the inundation, the sea-level changes, and also the human interactions with the environment (e.g. the management of the

[30] Arrowsmith's 1807 map of Lower Egypt (BLMC Maps 64390.(4.); Maps 17.a.15) indicated how the landscape of the northwestern Delta would be prone to change from one season to the next. The map includes some written notes that provide additional details. For instance, there is a sentence written in the area around lake Idku that reads: 'During the rise of the Nile, a great part of this country, which is low and flat, is overflowed by the Lakes Maudie and Etko' (Arrowsmith was using the name Maudie to refer to Aboukir). The area south of lake Idku is represented with faint and dotted lines, and it reaches the location of Kom al-Ahmer. The easternmost part of lake Idku bears this writing: 'Dry during the Southerly Winds and low Water.' This writing labels lake Idku: 'During the height of the Nile, this Lake communicates with Lake Aboukir so that a boat may go from el Hamed to Alexandria.' El Hamed is indicated as a settlement close to the western banks of the Rosetta branch.

[31] Based on Azab 2012: 95; Ahmed and Barale 2014: 383, 389–90.

drainage channels, irrigation practices, and cultivation) (El Bastawesy et al. 2017: 43; Livaditis 2019: 25–6).

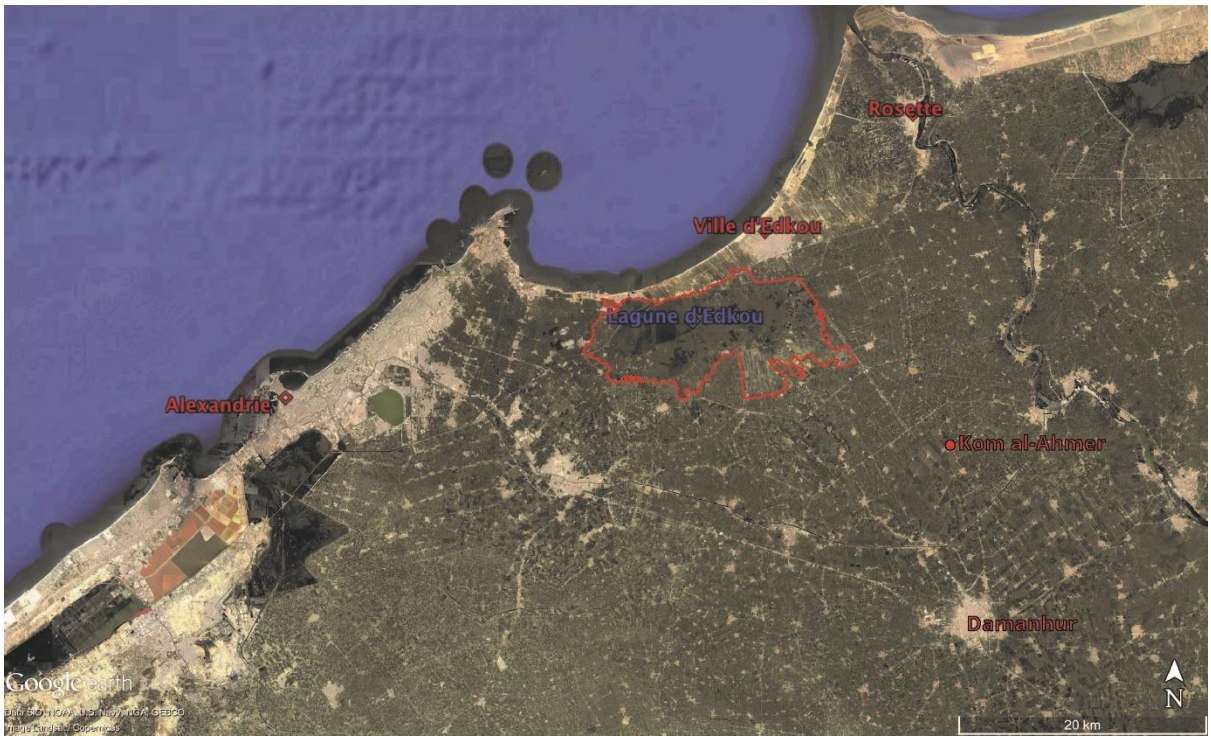


Figure 33 The northwestern Nile Delta with the location of the Idku lagoon (bordered in red), the main modern cities, and Kom al-Ahmer (after Livaditis 2019: 20, figure 2.2).

The lagoons of the Delta were not only a characteristic of its environment; they formed an integral part of the mobility and transport of people and goods (Livaditis 2019: 19). Wilson (2012: 102–7; Wilson and Grigoropoulos 2009) proposed that the Idku lagoon had been exploited as a maritime and river traffic management point and border control and offered an alternative entry point from that of the Rosetta mouth since the Pharaonic period and particularly during the Ptolemaic and Roman periods. Traffic management also allowed the local sites to join the trade network (Livaditis 2019: 27). Though the foundation of Alexandria may have reduced the basin's importance, the trade routes led to Alexandria, where grain would have been collected and eventually shipped to Rome, Constantinople, or Babylon (Cairo) pending on the period, and this arrangement meant that the settlements *en route* to Alexandria would have functioned as 'monitoring/customs posts or temporary storage and collection facilities for economic product from the area and beyond' as well as benefiting from being part of the trade network and having responsibilities for the hydraulic management of the area (Wilson 2012: 99, 106, 112). Wilson's (2012: 106) reconstruction of the ancient boundaries of the Idku lagoon using the 1 m ASL contour line put the position of the archaeological sites, including Kom al-Ahmer and Kom Wasit, along the lagoon shores (see Figure 34). The sites on the shores of the Idku basin would have

been part of this management system as controlling towns, also equipped with agricultural hinterland; these sites would have had the opportunity to economically develop thanks to the access to the trade network (Wilson 2012: 106). The evidence provided by the Ptolemaic and Roman sites in the northern Delta allowed identifying a different pattern in terms of administration and management of the area compared to the Pharaonic period, with a surge in site numbers possibly linked to the increase in relations with the Mediterranean and the availability of more land which would have enticed agricultural profit, especially in the Roman period with the annual grain delivery for the Annona of Rome (Wilson 2012: 111–12).

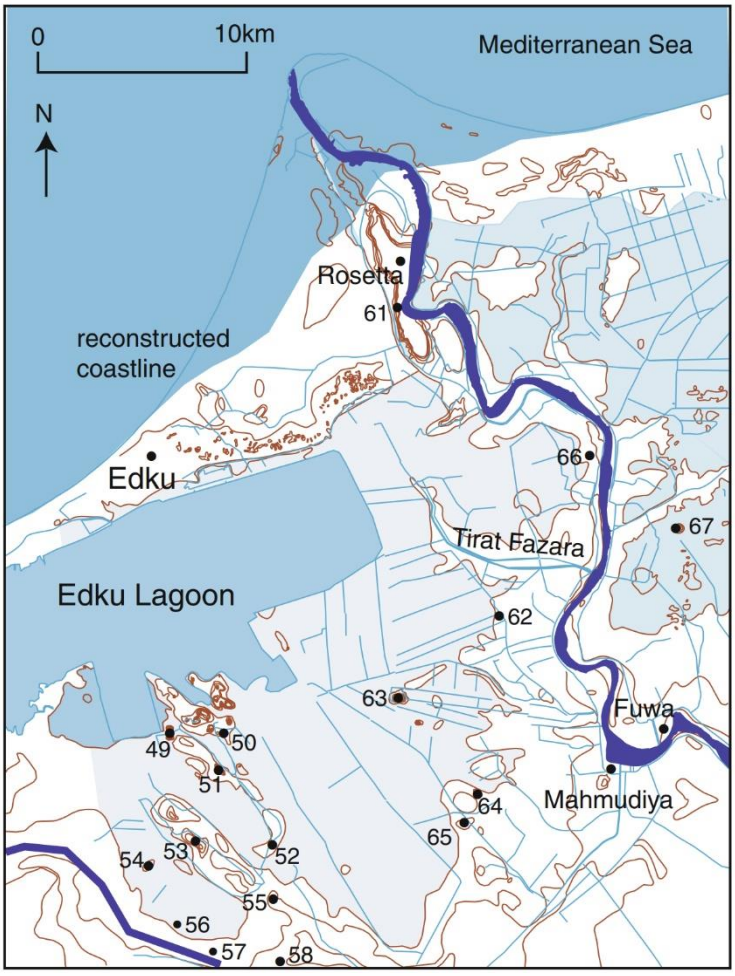


Figure 34 Map showing the reconstruction of the lagoons of Idku and Burullus; the area within the 1 m ASL contour line has been depicted as water or marsh. Kom al-Ahmer is the site indicated with the number 65 and could have had access to the Idku lagoon (Wilson 2012: 108, figure 6).

The above paragraphs briefly illustrate how people interacted with their Delta environment. Menotti (2012: 323) discussed wetland landscapes and considered them as 'taskscapes' due to their

close relationship with the activities carried out within them:[32] the activities (the tasks) performed by the wetland inhabitants would be related to the environment and would be ingrained into the evolution of people's social identity and cultural condition.[33] Part of these tasks would include manipulating the natural environment; the periods of flooding were part of the dynamicity that would trigger a human response comprised of diverse tasks (Menotti 2012: 328). Examples for the Nile Delta would be the selection of naturally elevated areas and sandhills to found settlements as the elevation, several metres higher, helped the settlements withstand the effects of the flood, the maintenance of the hydrological network in response to the annual inundation, as in the construction of barrages, the upkeep of canals, dykes, embankments, and channel dredging to manage the water level of the irrigation system canals during the annual inundation (El Bastawesy et al. 2017: 42). Therefore, management strategies, initially framed by survival necessity and eventually by economic and political requirements, exerted a measure of impact on the deltaic environment (El Bastawesy et al. 2017: 41; Livaditis 2019: 19), modifying the landscape and the ecosystem, sometimes in irreversible ways (Barker 2002: 489; Batisha 2013) as seen in the case of the High Aswan Dam.

As reviewed in the previous paragraphs, the river water figures prominently in the wetland; another kind of water, rainfall, must also be considered within the Delta's environmental conditions. Rain is not an infrequent phenomenon during the autumnal and winter seasons in Lower Egypt and the interior of the Eastern Desert, whereas it happens much less frequently in Upper Egypt (Gardner Wilkinson and Birch 1878: 426; Wilkinson 2013: 96). Proclus, a 5th century CE Neoplatonic philosopher, commented that rain would occur mainly within the area of Lower Egypt (Gardner Wilkinson and Birch 1878: 366; Proclus 1820: 100). It did not rain enough to render the desert land fertile (Hayes 1964: 94), but episodes of heavy rain could occur, and this should be considered in relation to the architecture, primarily built with mudbrick and hence susceptible to damage via rain.[34] Gardner Wilkinson and Birch (1878: 426) wrote that a few days of heavy rain in Upper Egypt, and even Cairo, would have been considered a wondrous occurrence in ancient times and that 'it would have caused many houses to fall down.'

Figure 35 shows the observed average annual precipitation registered in Beheira, Western Delta —where Kom al-Ahmer is located— and the annual average between 1901 and 2020 fluctuates around 100 mm of rain. The average denotes constant fluctuations, reaching a high of over 200 mm in the 1970s and a low of 25-30 mm in the late 1990s; however, rain is an established factor within the local climate. Figure 36 shows the monthly average precipitation (and minimum, mean, and maximum temperatures)

[32] Regarding landscape, human subsistence and temporality, Ingold proposed the term 'taskscape', described as 'an array of related activities' analogous to the landscape being 'an array of features' (Ingold 1993: 158).
[33] Hassan (1997: 52) wrote that 'Egypt, and other riverine civilisations, emerged and survived because of certain cultural-historical circumstances and specific ecological conditions.' In archaeological theory, views have varied from the environment dictating the limits of human reach to opinions that support the more substantial impact of human agency, as well as a recognition that both agencies would co-exist along a spectrum of influences (see Arponen et al. 2019).
[34] Unusually strong torrential rains were reported to have caused damage to the mudbrick houses of Sana'a in Yemen during summer 2020 (Cocchi 2020).

registered between 1991 and 2020 for the region of Beheira, Alexandria, Cairo, Menia (Middle Egypt), and Qena (Upper Egypt).

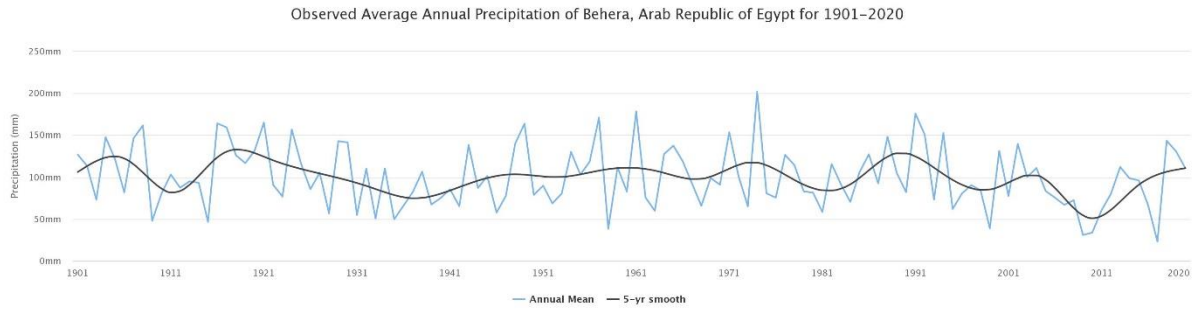


Figure 35 The graph illustrates the observed average annual precipitation in Beheira, Egypt, between 1901 and 2020; it can be observed that the average fluctuates around 100 mm of rain between 1901 and 2020 (https://climateknowledgeportal.worldbank.org/country/egypt/climate-data-historical).

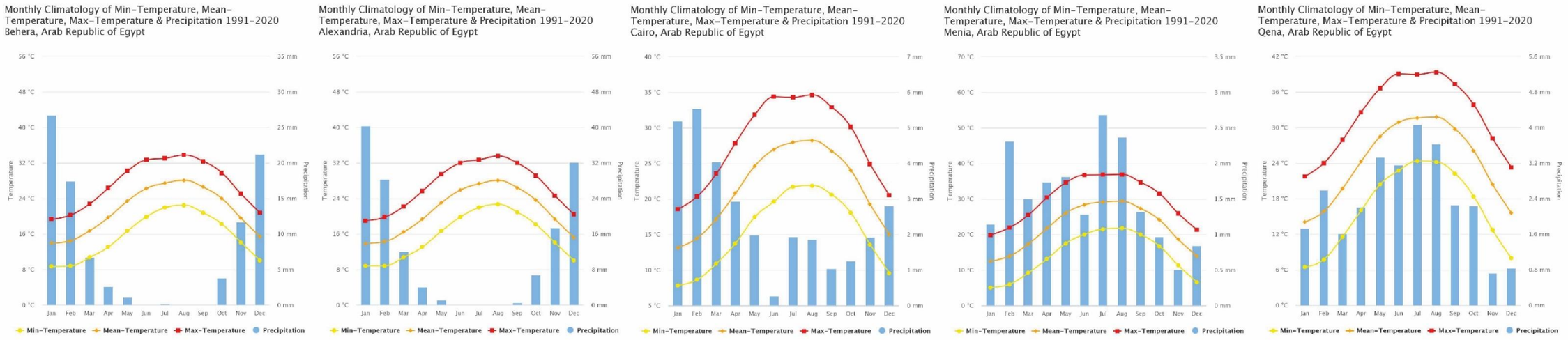


Figure 36 The graphs illustrate Egypt's monthly climatology minimum, mean, and maximum temperatures and precipitation between 1991 and 2020 (https://climateknowledgeportal.worldbank.org/country/egypt/climate-data-historical). The graphs show data for the region of Beheira, the area of Alexandria, the area of Cairo, the area of Menia, and the region of Qena (form left to right).

The graphs indicate that rain is more common in northern Egypt, with the highest precipitation averages recorded at Alexandria. The averages tend to gradually diminish moving south, with Cairo experiencing a monthly precipitation average of 6 mm, much lesser if compared to the monthly average high of Alexandria (40 mm) and Beheira (over 25 mm). The trend is visible also in the data registered for Menia (over 2.5 mm) and Qena (over 4 mm). Furthermore, the graphs denote a change in the seasonal rainfall pattern, with Alexandria and Beheira experiencing rainy winter seasons (with peaks in December and January), whereas Menia and Qena tend to see more rainfall in the summer months (July and August). Cairo seems to stand 'in between' with a rainy winter season and light rain throughout the year. The data recorded for earlier periods (1901-1930, 1931-1960, 1961-1990) denotes a similar pattern. The average temperatures also indicate gradual increases moving south. It can thus be observed, according to current data, that the northern Delta experienced precipitation differently from the Valley.

The factors discussed prompted questioning whether the Delta's environment would have posed a different influence on buildings, specifically vernacular mudbrick buildings in the case of this thesis, in terms of construction, space management, and preservation issues. In the case of vernacular buildings, is it possible to discern discrepancies between the architecture of Delta houses compared to houses of other Egyptian regions? Was the construction altered to respond to localised environmental risks? Ethnographical research on Egyptian mudbrick houses reveals that fewer mudbrick houses are preserved in the Delta than in the Valley today. Correas-Amador (2013: 266) noted that the number of houses she was studying decreased even during the period of her PhD research. No inferences regarding the weight that environmental and geographical factors may have had on this difference were advanced due to not having included other areas in the study (such as northeast Delta, Nubia, and Aswan) (Correas-Amador 2013: 267–68).

Regarding architecture and spatial organisation, Béthemont (1987: 24) commented that 'in deltaic contexts, the hydric factor imposes powerful limitations on human choices regarding space management.' Indeed, the settlements were located on high grounds (turtlebacks, levees, sandy hills), which were limited in area compared to the lowlands of the floodplain. The Nile annual inundation shifted large areas of the Delta from wet to dry in the course of the year. Said (1993: 98) mentioned that the river's bed and floodplain slowly but continuously rose due to the deposition of the silt carried by the river; this resulted in the gradual rise of the adequate level at which the inundation of the land was at its optimum. It is difficult to suggest to what extent this gradual rise would have impacted settlements' subsistence; however, it is one of the changes in the area's geomorphology which generated potential consequences. It may not have been a problem for settlements that were continuously inhabited for long periods, as they would also have grown in height as structures were built over the remains of the previous ones; on the other hand, rising water levels may have affected smaller settlements or urban centres in decline, where construction happened less. The slow but steady rise of the riverbed and floodplain and the gradual growth of a settlement would have meant that the area on which a settlement stood might have been impacted by the river's level and the water table. The abandonment of the site

of Kom Wasit, located 2 km northeast of Kom al-Ahmer, has been interpreted as a consequence of the rise in subsurface waters, which eventually impacted the mudbrick buildings (Kenawi 2008: 22–3, 2012: 309, 2014: 104–5). This situation may have affected the abandonment of settlements and the population of nearby ones (see Marchiori 2014 regarding the abandonment of Kom Wasit and the migration to Kom al-Ahmer).

Though settlements may have been safe above the inundation level, the heavier rains in the Delta could have been a risk. It was noted that rainwater tends to accumulate in the lowest parts of Kom al-Ahmer following heavy rains (Figure 37). While this accumulation may depend on factors such as the ground's elevation, the level of the water table, and the condition of the soil (varying from loose to crushable in the case of the site's surface), it was noted that also the beaten earth streets of the nearby modern village would be impacted by the rain by becoming muddy and difficult to walk (Figure 38). No mudbrick buildings exist in the village; as such, it was not possible to assess or ask about the consequences of rain on the architecture. Nonetheless, the photographs indicate that rain would render the ground relatively moist.



Figure 37 The spring rains accumulated in one of the lowest areas of the Kom al-Ahmer, south of the central mound (photographer standing on top of the central mound, facing south) (April 2019).



Figure 38 The main street of the village of Rawdat al-Mughazi after an episode of heavy rain (April 2019).

In addition, the subsurface penetration of saltwater from the sea, due to the withdrawal of groundwater (Government of the Arab Republic of Egypt (GARE) 1992), alters the geochemistry of the groundwater (Appelo 1990); this may also have repercussions on settlement subsistence (see Figure 39). A rise in the water table level may also be caused by human actions, such as intensive irrigation and land-reclamation programmes for agriculture. A 2012 report of the UNESCO-ICONOS monitoring mission to the site of Abu Mena, a monastery about 45 km south-west of Alexandria and a little over 20 south of the coast, on the edge of the Delta, reported that the water table rose 35 metres since the 1960s, which meant that it was only 10 cm below from the ground's surface (Benedini and Cleere 2012: 5, 12). When the water table rises, the ground soil naturally becomes moister, which hinders its ability to support some types of crops. In addition, the presence of water can damage structures, especially when there is salt present (see Kenawi 2014: 104). Salt content is related to the subsoil's mineral components, but increased salinity can be triggered if said components come into contact with percolating water (Benedini and Cleere 2012: 5, 10).

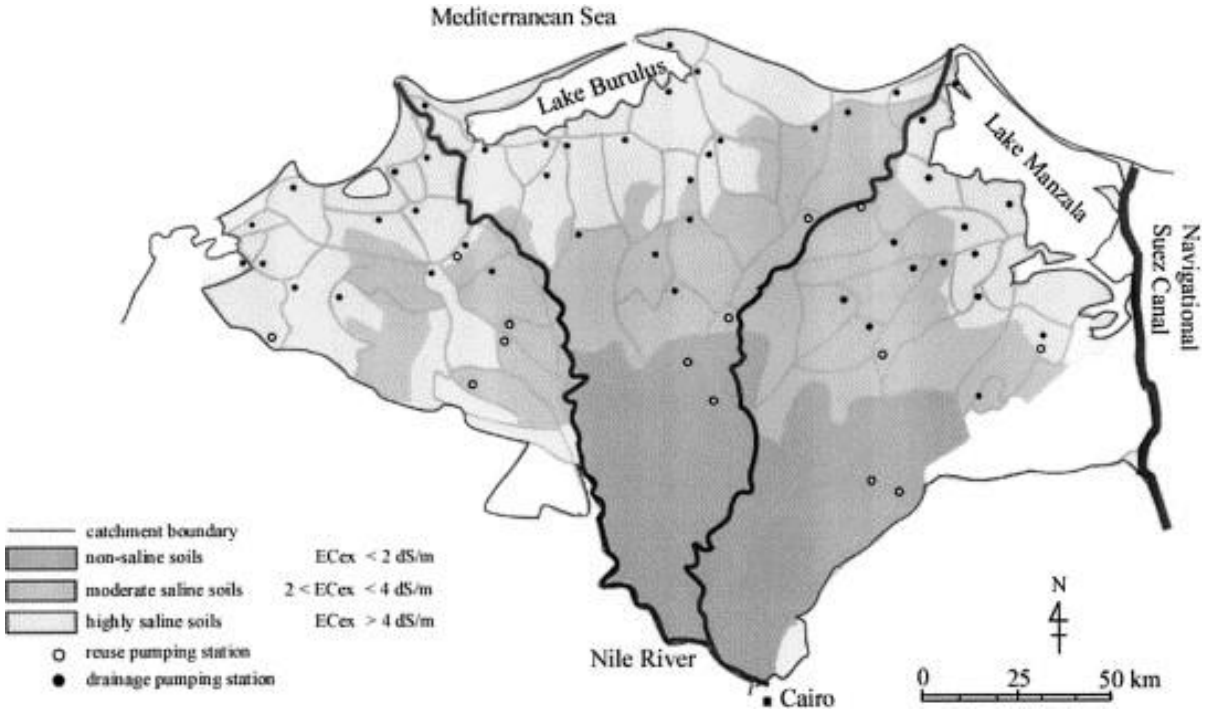


Figure 39 The soils of the northern Nile Delta affected by salt in the late 1990s (El-Gunidy 1989; Kotb et al. 2000: 249, figure 4).

2.3 – Chronological framework

The construction of the house at Kom al-Ahmer is estimated to have occurred sometime after 350 CE; the last phase of occupation of the house that the excavation could register occurred between 425-450 CE (see *Section 3.2 – Reconstruction of the phases of use of the house*). Therefore, this section will guide the reader through an introduction to the situation in Egypt during the Late Roman period. The point of explaining the geographical and administrative organisation is to review the available information of Kom al-Ahmer within its timeframe and thus contextualise the remains of the house in the socio-political situation.

2.3.1 – Timeline

The beginning of the Late Roman period is challenging to pinpoint as there are different opinions on the matter: some consider it began in 294 or 298 CE, associated with Diocletian's reign, in 320-30 CE, during the rule of Constantine and the foundation of Constantinople, or even in 395 CE when the empire was split in half (Cameron 2012: 12; Jones 1964; Riggs 2012: 4; Ruffini 2018a: 2). The spread and affirmation of the Christian religion also form part of the period's characterisation, in tight association with the Edict of Serdica, also known as the Edict of Toleration (311 CE).

The duration of the Late Roman period is also problematic (Papaconstantinou 2012: 216); it could be associated with the Western Roman empire's fall if we relate the name of the period to the legacy of the city of Rome and an Italo-centric vision. Egypt became closely associated with the Eastern empire following the foundation of Constantinople in ca. 330 CE. Some also deem the founding of Constantinople as the beginning of the Byzantine period (Römer 2019: 71) since it takes its name from Byzantium, the name of the city prior to its re-foundation as Constantinople.[35] The Byzantine period in Egypt started when the country became associated with Constantinople rather than Rome, thus around 330 CE (Alston 2001: 3; Bagnall 2007: 1). Ruffini (2018a: 2) provided a concise summary of Late Antiquity in Egypt in a contribution to the UCLA Encyclopaedia of Egyptology and began the paper by calling it the Late Roman period; according to Ruffini, the period spans until the Arab conquest of Egypt in 641 CE, but there is the acknowledgement that the starting date is more challenging to define. Some scholars contemplate the existence of a 'long' Late Antiquity lasting until the 8th/9th century CE, related to long-term dynamics and *historical continuum* (Bowersock, Brown and Grabar 1999; Inglebert 2017: 220–21; Rebenich 2009: 91).

For this thesis, I considered the beginning of the Byzantine period in the Eastern Roman empire as starting from the division of the Roman empire into the Eastern and Western empires in 395 CE, following the death of Theodosius I. Nonetheless, I followed Giardina's (1989) suggestion to consider Egypt Late Antique from the end of the 3rd century, in concomitance with Diocletian's years, to the mid-5th century CE, following which it can be considered Byzantine. The year 451 CE marked the beginning of the Egyptian Coptic church following its division from those of Rome and Constantinople (Brown 1971: 144–145; Römer 2019: 79), thus instigating a new era of religious independence from the Eastern and Western Roman empire.

The following concise exploration of this period cannot begin from its start date but needs to consider the preceding periods that ultimately had a role in shaping it. To quote Naphtali Lewis (1983: 8), 'Egypt post 285 CE was running into a different direction than Egypt post 30 BCE'. The transition from the Ptolemaic administration to the Roman one had included the utilisation of certain pre-existing factors —such as acknowledging geo-administrative divisions, maintaining Greek as the official language, supporting a Hellenised elite to which entrust the management roles within the political-administrative structure, to name a few— and the asportation of substantial changes that slowly led Egypt to conform more with the rest of the empire (Bowman 1996; Bowman and Rathbone 1992). Some pivotal events that characterised Egypt's political and social state between the 2nd and 3rd centuries CE that form part of the progression towards the Late Roman period are summarised in Table 2.

[35] Albeit a short span when it was re-named Augusta Antonina and New Rome.

Table 2 A list of some of the most well-known events that occurred before the Late Roman period (see Brunt 1975 for the list of Prefects)**.**

Date (CE)	Ruler	Prefect	Events
115-117	Trajan, Hadrian	M. Rutilius Lupus	Jewish revolts in Cyrenaica and Egypt (Kitos war) (Bagnall 1993: 275–76; Capponi 2010: 121)
c. 167-179	Marcus Aurelius (and Lucius Verus between 161 and 169)	T. Flavius Titianus Q. Baienus Blassianus M. Bassaeus Rufus ? Vernasius Facundus	The Antonine Plague was rampant, and its mortality levels in Egypt may have been higher than elsewhere due to its population density and environmental conditions (Scheidel 2002: 99–100)
172-175	Marcus Aurelius	C. Calvisius Statianus	The revolt of the Boukoloi in the Delta
200-1	^	Q. Maecius Laetus	Persecution of Christians under Septimius Severus (Plescia 1971: 123–4)
c. 201	Septimius Severus	^	Septimius Severus' act, the 'municipalisation' of Egypt (the *nome* capitals become Greek-style poleis)
212	Caracalla	Lucius Baebius Aurelius Iuncinus	The *Constitutio Antoniniana*
215	^	Aurelius Septimius Heraclitus Aurelius Antinous	Caracalla's massacre of Alexandrians
230s	Severus Alexander	Claudius Masculinus Maevius Honoratianus	Rise of the Sassanidae
235	^	^	The assassination of Severus Alexander; beginning of fifty years of chaos
250	Decius	Aurelius Appius Sabinus	Persecution of Christians by Decius
c. 257-260	Valerian and Gallienus	Lucius Mussius Aemilianus	Persecution of Christians by Valerian
c. 270	Claudius Gothicus Quintillus Aurelian	Aurelius Appius Sabinus	Anthony the Great changes his life to go and live in the desert as a hermit (Stewart 2000: 349)
270-272	Aurelian	Tenagino Probus Julius Marcellinus Statilius Ammianus	Zenobia and the Palmyrenes in Egypt
275	Aurelian / Tacitus	/	The monetary collapse has its impact on Egypt (Van Minnen 2007: 209)

The events of the Late Roman period are summed up in Table 3; they featured empire-wide changes committed to resolving the period of crisis while at the same time possibly acknowledging that new solutions are required. Figure 40 illustrates a timeline compiled to visually summarise the recorded

and known events that characterised the 4th and 5th centuries CE and some selected ones from the previous centuries. The timeline can also be accessed online by following this link: *https://time.graphics/line/468167*. Table 3 provides some necessary details of the events listed in the timeline. These events are recounted in the following paragraphs.

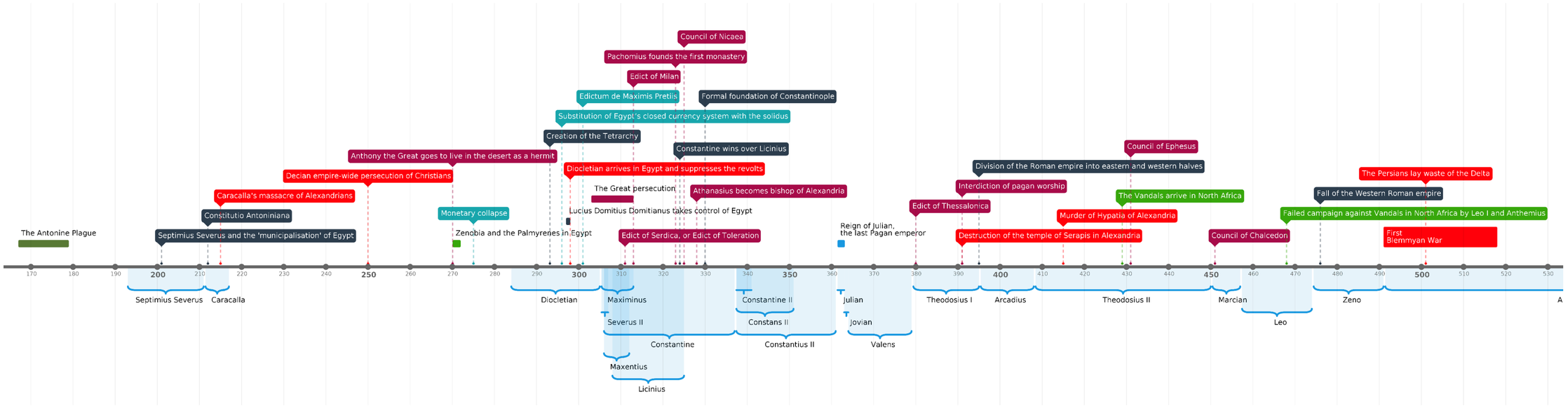


Figure 40 The timeline indicates the main events of the 4th and 5th centuries CE that either occurred in Egypt or impacted it; a few events from the earlier centuries are included. The timeline is subdivided into segments of 10 years each; the events are shown above the timeline, whereas the emperors and the length of their mandate are below the timeline. The timeline is colour-coded: red is for violent events, dark blue for political events related to the Roman empire, aqua for economy-related events, purple for religion-related events, green for military conflicts, and dark green for epidemics.

Table 3 A list of some of the main events that occurred during the Late Roman period (see Bastianini 1980; Brunt 1975; Cantarelli 1968; Hübner 1952; Reinmuth 1967; and Vandersleyen 1962 for the list of Prefects). The approximated dates of construction and abandonment of the Kom al-Ahmer Late Roman house are included.

Date (CE)	Ruler	Prefect	Events
284-305	Diocletian	Pomponius Januarianus Marcus Aurelius Diogenes Aurelius Mercurius Peregrinus Gaius Valerius Pompeianus Titius Honoratus Rupilius Felix Aristius Optatus Aurelius Achilles Aemilius Rusticianus Aelius Publius Sossianus Hierocles	Diocletian becomes emperor; re-structuration of the empire, division into east and west,
293	^	/	Creation of the Tetrarchy (two Augusti and two Caesars)
296	^	/	Substitution of Egypt's closed currency system with the solidus – Egypt becomes more in sync with the rest of the empire
297-98	^	Aurelius Achilles Aemilius Rusticianus Aelius Publius	Lucius Domitius Domitianus, and deputy Aurelius Achilleus, proclaimed themselves emperor and took control of Egypt
298	^	Aemilius Rusticianus Aelius Publius	Diocletian arrives in Egypt and suppresses the revolts
301/302	^	/	*Edictum de Maximis Pretiis*
303-313	Diocletian, Galerius, and Maximinus Daia	Sossianus Hierocles Clodius Culcianus Eustratius Aurelius Ammonius	The Great Persecution
311	Galerius (eastern empire)	/	Edict of Serdica (Sofia, Bulgaria), or Edict of Toleration by Galerius.
313	Constantine I (western empire) and Licinus (eastern empire)	Aurelius Ammonius	Edict of Milan (Milan, Italy) agreed by Licinius and Constantine I
308-324	Licinius (eastern empire)	Aurelius Ammonius Silvanus Pomponius Anoubianus Aurelius Apion -elius Julius Julianus	Licinius also reigns Egypt from 313
c. 323	^	/	Foundation of the first monastery by Pachomius (coenobitic monasticism)
324	Constantine I	Julius Julianus	Constantine wins over Licinius at the battle of Hadrianople Reunification of the empire
325	^	/	First Council of Nicaea, reaffirmation of the Nicean Christianity over Arianism
328-373	Constantine I Constantine II, Constantius II, and Constans	Septimius Zeno Magntianus Florintius Heginus Patirius Flavius Philagrius	Athanasius became bishop of Alexandria; exiled five times between 328 and 373 by four distinct emperors

	Constantius II Julian Valentian I and Valens	Flavius Anthonius Tudurus Flavius Philagrius Longinus Palladius Nesturius Sebastianus Maximus Cataphronius (Hermogenes) Parnasius Italicianus Faustinus Gerontius Ecdicius Olympus Hierius Maximus Flavianus Proculeianus Flavius Eutolmius Tatianus Olympius Palladius Aellius Paladius	
330	Constantine I	Magntianus	The formal foundation of Constantinople – the annual grain delivery for the Annona is diverted from Rome to Constantinople
ca 350-400			**The Kom al-Ahmer house was built sometime during this period**
361-363	Julian	Ecdicius Olympus	Reign of emperor Julian, the last Pagan emperor
380	Theodosius I, Gratian, and Valentinian II	(Julius) Julianus	Edict of Thessalonica: agreed on by Theodosius I, Gratian, and Valentinian II, Nicean Christianity is proclaimed the official religion of the empire; all other Christian sects are considered heretical
381	Theodosius I	(Julius) Julianus Palladius (First Praef. Augustalis)	First Council of Constantinople
391	Theodosius I	Evagrius	Destruction of the temple of Serapis in Alexandria
391-92	^	Evagrius Hypatius II Potamius	Interdiction of pagan worship
395	Arcadius (eastern empire) and Honorius (western empire)	Evagrius (iterum)	Division of the Roman empire into east and west following the death of Theodosius
415	Theodosius II	Orestes	Murder of Hypatia of Alexandria
429	^	Callistus	The Vandals arrive in North Africa
431	^	^	Council of Ephesus, Nestorianism is condemned
ca 450+			**Latest evidence at the Kom al-Ahmer house**
451	Marcian	Theodorus	Council of Chalcedon, condemnation of Monophysitism and beginning of the Egyptian Coptic church

468	Leo I (eastern empire)	Alexander	Failed campaign against Vandals in North Africa by Leo I and Anthemius (Western empire)
476	Zeno (eastern empire)	Boethus	Romulus Augustulus is deposed, fall of Rome and the Western empire
491-518	Anastasius (eastern empire)	Eustathius Theodosius Strategius (?) (Flavius?)	First Blemmyan War
501	Anastasius (eastern empire)	Eustathius	The Persians entered Egypt and 'lay waste the whole of the Delta up to [] Alexandria'
536	Justinian (eastern empire)	Hephaestus	The temple to Isis in Philae Island (Aswan) is closed
553	Justinian (eastern empire)	Germanus Justinus	Second Council of Constantinople, the fifth ecumenical council of the Christian church
619-629	Heraclius (eastern empire)	Shahrbaraz Shahralanyozan Shahrbaraz	Egypt is occupied by the Sasanian Persians
639-641	Heraclius (eastern empire)	Theodorus Zubayr ibn al-Awam Amr ibn al-As	Arab conquest of Egypt

Diocletian's time as emperor began in 284 CE and was marked by many administrative, economic, and social decisions that impacted the empire (Bowman 2008). He had to confront insurgencies in Germany, Gaul, and Britain, particularly the latter, where military commander Carausius had taken over and had proclaimed himself emperor in 286 CE (Todd 2005: 444); Carausius lasted until 293 CE when he was assassinated and substituted by his finance minister Allectus (Bowman 2008: 71, 72, 78–79). As the empire's territory was too large to control effectively, Diocletian expanded his collaboration with Maximian, already a co-emperor with him and tasked with taming the abovementioned rebellions since 286 CE, to a Tetrarchy six years later. This system of government included two Augusti (Diocletian and Maximian) and two Caesars (Galerius and Constantius) for the eastern and western territories of the empire, respectively. Allectus was a challenge until his deposition in 296 CE, following Constantius Chlorus' regain of Britain (Lo Cascio 2005: 170–171; Potter 2014: 276, 281; Wilkes 2005: 230).

What followed concerned Egypt directly: the closed currency system of Egypt, in use since the Ptolemaic period, underwent a monetary reform and was substituted by the *solidus* in 296 CE (Ritner 1998: 2). In the words of Van Minnen (2007: 209), 'the solidus provided a solid foundation for a sound monetary economy,' but this change probably also had the effect of connecting Egypt more with the rest of the empire (Bowman 2005: 322; Ritner 1998: 24). In terms of economy, this was not the only alteration: the *Edictum de Maximis Pretiis* was issued about five years later, with the hope that it would improve the economic situation following the third-century inflation; however, the hoped results were not achieved, and the edict was no longer enforced following 305 CE (Corcoran 1996: 205–33).

Other political motives might have also inspired the shift to the solidus. Between 297 and 298 CE, Lucius Domitius Domitianus, supported by his deputy Aurelius Achilleus, proclaimed himself emperor and took control of Egypt (Thomas 1976: 277–8). The situation was dealt with seriously, to

the point that Diocletian himself went to Egypt with the troops to suppress the revolt. Egypt's geographical organisation was replanned by creating different provinces (Van Minnen 2007: 207). Diocletian travelled to the south of Egypt to rearrange the frontier (Thomas 1976: 275–6) from the Dodekaschoinos, the northern part of Nubia, back to Syene (Aswan) due to the Blemmyes' growing strength (Römer 2019: 83). According to Soto Marin (2018: 23), Diocletian might have deemed the closed currency system 'as an invitation for further political unrest,' which could have affected the decision to shift to the solidus.

Several of the occurrences that happened next are closely tied to religious beliefs. By the early 4th century CE, the Christian religion "was already well established in Alexandria" (Kiss 2007: 187). Even so, the great persecutions of Christians under Diocletian, Galerius, and Maximinus Daia began in 303 and were followed by a series of edicts that were promulgated throughout the 4th century. First came the Edict of Serdica, or Edict of Toleration by Galerius, in 311 CE, which recognised Christianity as a religion in the empire; it was followed two years later by the Edict of Milan, under Constantine (in the Western empire) and Licinius (in the Eastern empire), which certified Christianity as a legit religion. Fuller support was granted to Christianity by Constantine, who eventually defeated Licinius at the battle of Hadrianople and unified the empire (Lo Cascio 2005: 178). Egypt had been under the control of Licinius between 308 and 324 CE, a period that Bagnall described as 'after the end of persecution of Christians but before the overt state support of Christianity brought by Constantine' (Bagnall 1993: 271). The year 323 CE also saw Pachomius' foundation of the first monastery and the beginning of coenobitic monasticism, which would come to characterise Egypt profoundly during the 5th and 6th centuries CE. Monastic settlements, such as Nitria and Kellia, were also present in the Western Nile Delta. Nitria was founded around 315-330 CE and was one of the first monastic sites in Egypt; it began as a community of isolated monks but developed into a large community visited by pilgrims and complete with services; it was abandoned by the mid-7th century CE (Bagnall and Rathbone 2004: 110; Choat 2019: 465). Kellia was established in the mid-4th century CE as an isolated settlement for monks seeking seclusion; during the 5th-6th centuries CE it had become populated by thousands of monks, yet it began to decline in the subsequent centuries due to doctrinal disputes and raids by nomadic tribes from Libyan Desert and it was eventually abandoned by the 9th century (Bagnall and Rathbone 2004: 111; Hedstrom and Dey 2020).

Following Constantine's reunification of the empire, Constantinople was formally founded in 330 CE (Leadbetter 2000: 265). This establishment marked a change for Egypt as, from then onward, it was submitted to its administration rather than Rome's. Furthermore, the annual grain delivery for the Annona of Rome, so jealously defended, was redirected to Constantinople (Bowman 2005: 324; Papaconstantinou 2012: 198; Sessa 2018: 24). In addition to his politics, Constantine was involved in religious affairs, and he convened the first Council of Nicaea in 325 CE (Cameron 2012: 27, 29); among over issues, the council determined the reaffirmation of Nicean Christianity, which proclaimed the equal divine nature of God the Son and God the Father, over Arianism, which considered God the Son a

creation of God the Father (Cameron 2012: 13; Leadbetter 2000: 266). One notable opponent of Arianism was Athanasius, the bishop of Alexandria between 328 and 373, despite being condemned to exile five times by four distinct emperors (Leyerle 2009: 113; Römer 2019: 78). Nevertheless, Nicean Christianity received full support solely after Athanasius' passing away: in 380 CE, Theodosius I, Gratian, and Valentinian II agreed on the Edict of Thessalonica, which proclaimed Nicean Christianity as the official religion of the empire, thereby rendering all other Christian sects heretical (Humfress 1999: 490).

Following Constantine's reign and baptism, rendering him the first officially Christian emperor, the subsequent emperors were all Christians with one exception: Julian, the last Pagan emperor, and his short reign (361-363 CE) did not allow him much time to bolster support for the Pagan community (Cameron 2012: 16, 69). If the 4th century CE had seen several episodes of Christian persecution, the 5th century CE saw the tables turned, with the Christians carrying out the persecutions. Pagan worship became interdicted in 391 CE by Theodosius I (*Codex Theodosius*, XVI.10.10) (Leadbetter 2000: 286); a direct outcome of this imperial edict was the destruction of the temple of Serapis in Alexandria a few months later. Though it occurred over 20 years later, the murder of Pagan philosopher Hypatia of Alexandria by a Christian mob impacted the population for the assassination and the brutality; not even the Theodosian Code condoned such acts of violence (Watts 2006a: 335). This terrible event, combined with the ousting of Jews from Alexandria and the attack on the prefect Orestes by a group of monks, indicates that it was a tense period (Römer 2019: 79). John of Nikiû himself linked Hypatia's murder to idolatry (John of Nikiû 1916, 84.103), bearing similarities to how the Serapeum's statues of Serapis had been destroyed (Troels Myrup Kristensen 2009: 229).

In 395 CE, after Theodosius I's death, the empire was once again divided into eastern and western halves, this time permanently; the eastern part went under the control of Arcadius (Cameron 2012: 1). It must be noted that a previous *divisio regni* had occurred in 364 CE when Valentinian had named his brother Valens co-emperor and assigned the Eastern provinces under his administrative and military responsibility; however, this event has been deemed similar to the decisions of Diocletian, that had the aim to unite through division (Drijvers 2015: 88, 94). The weakening of the Western empire was more than evident with the arrival of the Vandals in North Africa. Leo I, from the Eastern empire, led a campaign against the Vandals in 468 CE, but he failed in making them retreat (Cameron 2012: 35; Whitby 2001: 292). In 476 CE, Romulus Augustulus was deposed by Flavius Odoacer only eight years later. This event marked what is traditionally regarded as the fall of Rome and the Western Roman empire (Humphries 2009: 105); however, the life of the Eastern Roman empire continued.

By the 5th century CE, Christianity was widespread in Egypt and co-existed with Pagan religions. Pagan teaching continued to be carried out in Alexandria well into the 6th century CE (Rémondon 1951: 63–4; Watts 2006b), and specific festivities, such as Nile festivals, are attested even during the 5th century (Keenan 2001: 619), whereas in Alexandria the measurement of the annual flood not only continued but it was moved from the Serapeum to a church (Römer 2019: 84). 'Native cultic

piety', as Frankfurter (1998: 17–18) described it, continued to be practised throughout the 5th century CE and beyond. Another religion that enjoyed popularity in Egypt during the 4th and 5th centuries was Manichaeism; it reached the point where it could rival the Christian church, but it was eventually banned and expelled (Römer 2019: 85).

The Christian religious discourse on human and divine natures began in the 4th century and was entwined with politics. Theodosius II called for the Council of Ephesus in 431 CE with the aim to settle the disagreement between Nestorius and Cyril: the former, the archbishop of Constantinople, emphasised the separation between the human and divine natures and supported the acknowledgement of the figure of the Virgin Mary as *Christotokos*, "Christ-bearer", and not as *Theotokos*, "God-bearer", whereas the latter, the patriarchate of Alexandria, was in favour of using the term *Theotokos*. Though it was a matter of theological argument, it also exhibited hints of political rivalry between Alexandria and Constantinople since Theodosius II supported Nestorius, his sister Pulcheria supported Cyril, and the Roman synod backed Cyril (McGuckin 1994: 12; Römer 2019: 79; Russell 2000: 31–58). The council decreed Nestorianism as heresy but accepted the dual nature of Christ in one person; however, the discourse regarding human and divine continued at the Third Council of Ephesus in 449 CE but was not resolved until 451 CE, at the Council of Chalcedon called by Marcian. At the Council, monophysitism, the belief in the sole divine nature of Christ, was condemned while the concept of a dual nature was affirmed. The council's conclusions were rejected in Egypt. The repercussion was the split of the Egyptian church from Rome and Constantinople, thus marking the beginning of the Egyptian Coptic church (Brown 1971: 144–145; Römer 2019: 79). Römer points out that the theological separation had ramifications in other social realms, such as the growth of a de-Hellenised culture and attaining a degree of autonomy from the Eastern empire (2019: 79–80).

Despite Diocletian's earlier understanding of and intent to placate the threat posed by the Blemmyes, the latter was a constant presence at the southern frontier, shifting from performing raids into Egypt to regularly visiting the Isis temple at Philae for worship. The first Blemmyan war began at the end of the 5th century CE; while it lasted until 518 CE, it was followed by two more wars, the last of which ended in the early 570s CE (Keenan 2001: 623–624). In the early 6th century, Egypt also had threats in the north: the Persian army moved into the Delta and made its way to Alexandria, wrecking the Delta on its way (Sharpe 1846: 557–558); Eutychius reported famine, diseases, death, and a land left in ruins (Eutychius 1905: 192, 1985: 24.244).

2.3.2 – Geographical and Administrative Divisions

The geographical and administrative organisation of the Delta had roots that went back to the Pharaonic period, and they were subsequently modified by both Ptolemies and Romans accordingly. On several occasions, the country was internally divided starting from Diocletian, in concomitance with the start

of the Late Roman period and during the 4th century. Bagnall (Bagnall 1993: 63) defined the 4th-century divisions as 'a series of experiments in the organization of the country;' indeed, the first one formed part of Diocletian's reforms aimed at solving the existing issues related to local administration, tax collection, and army supply (Bowman 2005: 319) by 'creating smaller units of authority' (Ruffini 2018a: 7).[36]

By the 5th century CE, the country was subdivided into six different regions: Aegyptus, Augustamnica, Arcadia, the Thebaid, and Lower and Upper Libya (Figure 41) (Benaissa 2012; Bodham Donne 1854; Bowman 1996; Lallemand 1964; Palme 2007: 245, referring to the Notitia Dignitatum). This specific division lasted between 395 CE to roughly 500 CE. Among these divisions, it must be noted that the area of the Western Delta or Aegyptus was always considered administratively as a whole; ergo, it had a straight link to Alexandria in terms of geographical proximity, governmental relationship, and commercial influence (Kenawi 2014: 1, 15, 226).

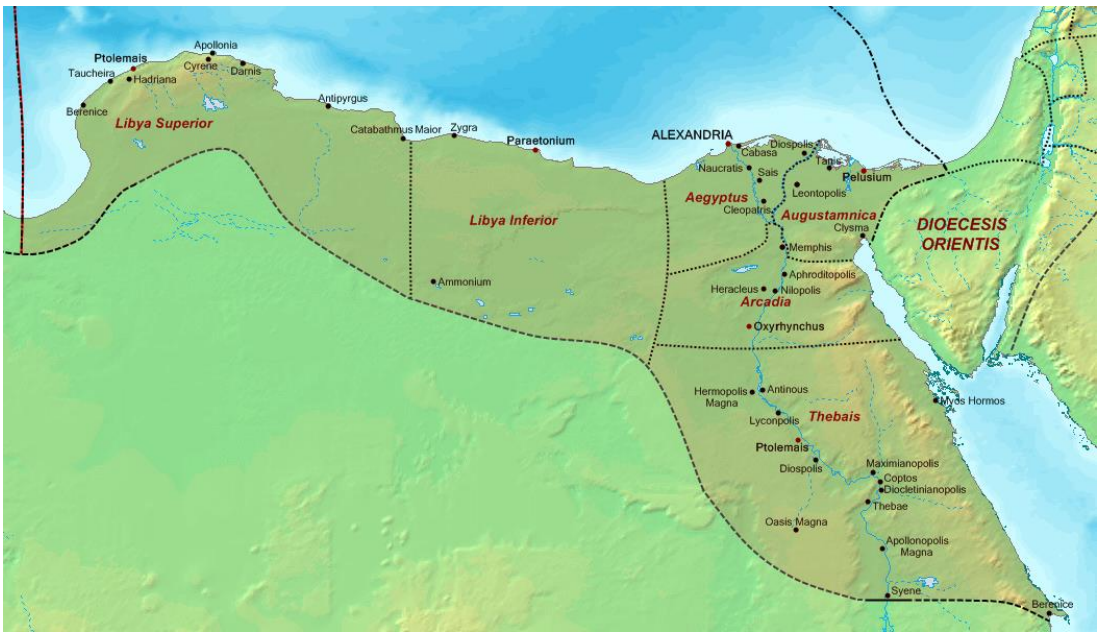


Figure 41 Map of the Diocese of Egypt around 400 CE (Cplakidas, based on the Notitia Dignitatum and the Synecdemus. Dioecesis Aegypti 400 AD, showing the subordinate provinces and the major cities (2021, November 10). Wikimedia Commons, the free media repository. Also available in Arabic. Retrieved 16:56, March 15, 2022, from https://commons.wikimedia.org/w/index.php?title=File:Dioecesis_Aegypti_400_AD.png&oldid=606475155).

The area of the modern region of Beheira is considered to have been the hinterland of Alexandria; recent survey works have led researchers to reconsider the significance of this region with Alexandria, with an increase in sites during the Hellenistic period that continued throughout the Roman and Late Roman periods due to the establishment of Alexandria as the capital city (Figure 42) (Kenawi

[36] Said units of authority are summarised in Appendix to Chapter 2, Geographical and Administrative Divisions.

2014: 225). The capital would have required numerous resources, starting with food, and one of the primary providers would have been the hinterland around Alexandria (Wilson 2012: 99–101). During these periods, the region became renowned for the production of wine, olive oil, and grain; seven of the eight wine-producing sites identified by Kenawi's Beheira Survey were located in the vicinity of the area's main port (Kom Truga) so that the products could be transported to Alexandria (Kenawi 2014: 223–24). All sites surveyed in the Beheira Survey were positioned close to modern waterways, which likely follow the traces of the ancient ones; Kenawi (2014: 225–26) inferred that access to the waterways, which would lead to Lake Mareotis, would have been pivotal for the shipment of goods to the capital, not to mention the agricultural products. These waterways would have connected Alexandria and the Mareotic region with the rest of the Delta. In general, water transport was most ideal in Egypt as it would have been cost-effective, efficient, and safe (Ermatinger 2004: 24).

Due to the reconfiguration of the region in Ptolemaic and then Roman times, the large settlements near the lakes could also have monitored the movements and traffic between the Bolbitine branch, Lake Idku, and the coast (Figure 34) (Wilson 2012: 105–6). The access to well-connected waterways and the proximity to Alexandria would have contributed to making them accessible to trade (Kenawi 2014: 22). Late Roman settlements of the region were involved in the Mediterranean-Egyptian trade routes, as testified by the evidence of imported and Egyptian amphorae (Wilson and Grigoropoulos 2009: 276–282, 288, table 3). Kom al-Ahmer was among the three main settlements of the survey region and seemed to have been involved in olive oil production. Kenawi associated the remains of the Roman bathhouse at Kom al-Ahmer with the prosperity generated by the regional and interregional trade and commercial activity (2014: 223–25). The use of the Roman bathhouse was dated between the early empire and the 8th century CE (Fournet and Redon 2017: 297–98; Kenawi 2014: 109).



Figure 42 Map of Beheira with the location of the Roman and Late Roman sites following Kenawi's Beheira Survey between 2008 and 2011 (Kenawi 2014: 231, map 5). Kom al-Ahmer is visible in the top-right corner of the image. It should be noted that recent excavations at Kom Wasit (whose position is indicated by the pink dot) have revealed the existence of a Late Roman cemetery (for instance, see Mondin et al. 2021).

2.4 – Kom al-Ahmer in the Late Roman period

Where does Kom al-Ahmer fit within the administrative and geographical framework? To answer this question, a tentative description of the Delta during the Late Roman period is helpful to contextualise the site. The Peutinger map (13th century CE copy) (https://peutinger.atlantides.org/map-a/) provides a stylised representation of the Mediterranean world during the 4th century CE (Cooper 2014: 38).

Egypt's Delta is depicted with the Nile bifurcating into two distributaries from which, in turn, sprout more distributaries. Though the map is graphically inaccurate, it depicted the entanglement of the Nile branches, which cannot be individually discerned.

The Nile mosaic of Palestrina[37] offers a depiction of the Nile during the Hellenistic period. The construction of the complex that initially contained the mosaic dates to c. 125-120 BCE, and the mosaic's creation is estimated to have occurred between 120 and 110 BCE; the mosaic used to be part of the floor of a semi-artificial grotto (Meyboom 1995: 8, 15, 17). The mosaic shows the Nile as it flows from Ethiopia to the Mediterranean.[38] Lower Egypt is shown during the inundation, and the landscape is represented in great detail. There are several buildings of disparate nature, standing on what appear to be islands surrounded by the river's waters, a variety of individuals representative of the contemporary society carrying out all sorts of activities, work and recreational, and at least 40 different wild and domestic animals and 14 different types of trees and plants (Meyboom 1995: 41). Indeed, towns, villages, and farmhouses would have welcomed domestic animals during the inundation period (Diodorus Siculus 1933, I, 36, 7-12). The mosaic is striking as it depicts a dynamic and active scene.

Classical writers presented a description in their writings, albeit referring to an earlier period. Diodorus Siculus (1st century BCE) referred to the Delta and named the seven branches[39] and other mouths constructed by people but reckoned there was no need to add anything more about them (Diodorus Siculus 1933, I, 33, 5-8). Strabo's Geography described the Nile Delta between 20 BCE and 20 CE (Roller 2014), which recounted that the Delta's shape was related to the eastern and westernmost of the Nile's distributaries, the Pelusiac and the Canopic (or Heracleiotic) branches. In addition, there were many other branches, but Strabo reckoned that only five were worth mentioning in terms of size. Nevertheless, there was such a high number of smaller branches that the Delta was subdivided by streams around islands that had rendered it fully navigable (Strabo 1932, 17, 4). Strabo's writing can be confusing as it can lead the reader to wonder whether there was indeed only a given number of main branches (Cooper 2014: 19). During the 1st century CE, Pliny the Elder mentioned at least twelve mouths, plus four 'false' ones, but only provided the names of the main seven (Pliny the Elder 1855, 10).

While Braudel (2001: 66) described the Nile Delta as a 'labyrinth of lagoons, of low-lying amphibious islands and marshy swamps,' it must be borne in mind that it had been inhabited wetland long before the Late Roman period; this meant that the landscape had undergone human manipulation to allow a degree of stabilisation suitable for inhabitation (Blouin 2014: 220–22, 230–32, 292; Butzer 1976: 39; Menotti 2012: 322) although there is little specific information about this. With the flood lasting 110 days on average, the Delta landscape would have shifted to an extension of water dotted

[37] A municipality about 37 km east of Rome, ancient *Praeneste*, *Prainestos* in ancient Greek
[38] Note that the perspective is looking from the north towards the south.
[39] The titular seven branches of the Nile in the Delta all existed probably since the Predynastic period (Brink, van den 1987; Said 1993: 70).

with by small 'islands,' as in the settlements (Diodorus Siculus 1933; Herodotus 1920, 2.97). When the water receded, inland sites would have stood over an expanse of cultivated fields (Wilson 2014: 57); instead, those sites located in proximity to the lakes or lagoons and marshes would be interfaced with water on a more regular basis (Wilson 2014: 46, 49). All water bodies, ranging from the river, canals, reservoirs, ponds, and marshes, could be hubs for fishing. Marshes and swamps would be areas where fowl and game could be hunted, and cattle grazed (as they still are). Fishing and hunting would be additional sources of food, especially during the periods of low crop yield or to supplement the diet; fishing was viewed as a valuable activity, so much so that there existed rights for public and private fishing during the Roman period (Bunbury 2018: 47; Parsons 2007: 97).

The settlements were located over levees and *gezireh* (turtle backs); thus, they would usually not be reached by the floodwaters (Bunbury 2018: 46–7; Parsons 2007: 83), which would have endangered the inhabitants and the stability of their structures. Humans relied on the stability and height above the water level during the inundation, as the settlements would have had to withstand it throughout the flood until the water receded. Aside from high lying settlements, dykes and embankments were also constructed to withstand the rise of the water level. The number of settlements (sites) varied over time; however, an indicative number is provided by the Egypt Exploration Society survey database, which included about 150 sites with evidence for Late Antique surface pottery in the Delta (Figure 43) (Wilson 2014: 49).[40] The surface pottery survey also indicated that several of these sites were occupied for extended periods, spanning from Late Antiquity well into the 10-11th century CE (Wilson 2018: 47, table 1). Kom al-Ahmer follows this occupation trend well into the Islamic period, with evidence of occupation in the Ptolemaic, Roman, and Late Roman periods (Asolati et al. 2020; Badalucco 2019; Kenawi and Marchiori 2019b; Mondin 2019; Zorz and Bonanno 2019).

[40] It must be noted that the figures are dependent upon the surveys that have been carried out; as such, they carry an inherent bias which, for the time being, cannot be bypassed lest more sites are archaeologically explored in depth.

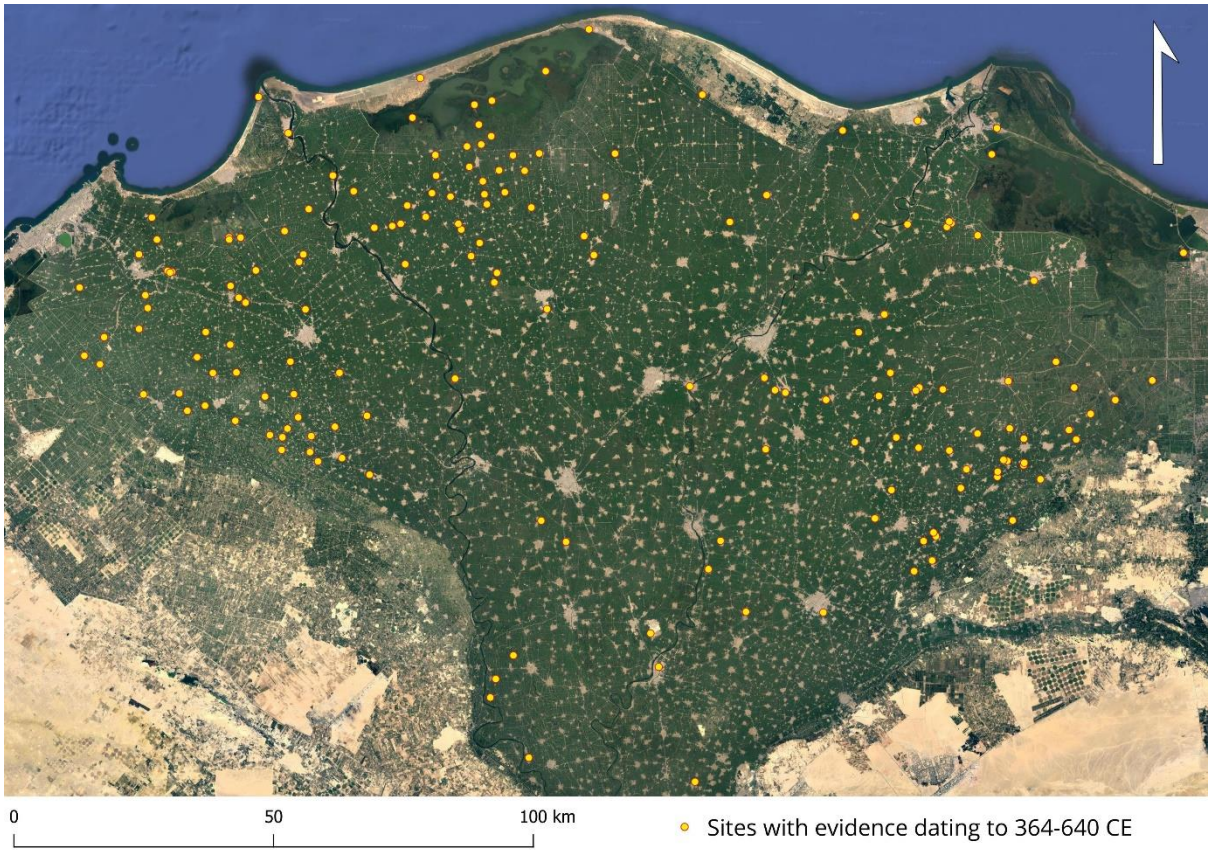


Figure 43 The location of the archaeological sites with material culture dating between 364-640 CE overlaid on a Google Earth satellite image of the Nile Delta (Google Earth, Data SIO, NOAA, US Navy, NGA, GEBCO, Image Landsat / Copernicus 2015).

Figure 44 illustrates the location of the settlement sites from which materials dating to the Late Roman period have been recorded. It is indicative of the possible urban situation in the northwestern Nile Delta. Several sites have not undergone extensive investigations, and preliminary data was retrieved from survey results; in some cases, the excavation reports are either not published or widely disseminated, while in others, the sites have been built over. The sites that underwent excavations followed by publications are Kom Wasit, Kom al-Ghoraf, Kom al-Giza (Schedia) and its nearby mounds, and Kom Daba el-Qibli. Kom Wasit is located 2 km northeast of Kom al-Ahmer. It is associated with Kom al-Ahmer due to their proximity and possibly entangled history (see Kenawi 2019b for the excavation monograph): the investigation results point toward Kom Wasit's inhabitants moving to Kom al-Ahmer towards the Roman period due to the problems of the land, rendered unsuitable for inhabitation and building due to a rise of the subsurface waters (Kenawi 2008: 22–3, 2012: 309, 2014: 104–5; Marchiori 2014: 84–5). There is evidence of a Middle/Late Roman use of the site as a cemetery on the location of the Ptolemaic baths (Mondin et al. 2021).

Excavations at Kom al-Ghoraf were carried out between 2002 and 2010 by a mission from the University of Rome (La Sapienza). They revealed the existence, on the site's northern side, of a sizeable Roman mudbrick structure with vessel burials, 11 water cisterns located on the site's southwestern side,

as well as the remains of a Byzantine residential sector on the central mound's summit, with two phases dating to the 4th-5h centuries and 5th-7th centuries CE (Lanna 2005: 352–54; Sist 2011: 142–43). The site seemed to have been abandoned in the 7th century CE. The presence of the cisterns indicates resource management in terms of drinking water in Egypt (Bagnall 1993: 18; Lanna 2005: 346); in fact, a Late Roman cistern was also uncovered at Kom al-Ahmer (Kenawi and Marchiori 2019a).

Kom el-Giza (Schedia) was investigated by a mission from the University of Göttingen between 2004 and 2009. Several Roman and Late Roman buildings were identified through the geophysical survey and excavations (among which a villa, a pillared brick building, vats that were possibly related to the production of wine, and tombs), an early Christian community inhabited the settlement and had its own bishop's seat; there is also evidence of a synagogue (Archer 2010: 945). Schedia's position by the Canopic branch and the Alexandria canal rendered it Alexandria's main inland port (Wilson 2012: 104); the pottery evidence from the Late Antique layers at the site testifies to its integration in the Mediterranean trade network, particularly in the Late Roman period (Archer 2010: 946; Bergmann and Martin 2010: 116).

A Japanese mission of the University of Waseda, led by Dr So Hasegawa, has been working at Kom Daba el-Qibli in recent years. The results achieved so far have been partially published (Hasegawa 2017)[41] and they relate that the site bore evidence of occupation and strong economic activity in the Ptolemaic period based on the study of pottery remains. The site was occupied also throughout the Late Roman period (Wilson 2012: 106).

The surveys carried out by Wilson, as part of the EES Delta Survey project, and Kenawi, as part of the Beheira Survey, have demonstrated that the area was commercially active (see *Section 2.3.2 – Geographical and Administrative Divisions*). Long-term excavations of these and more sites would allow for a regional-wide investigation that could further enhance our understanding of the region's situation during the Late Roman period.

[41] The research reports of Hasegawa's project 'Study on the ancient environment utilizing satellite and geological information at the lagoon are of West Delta, Egypt' which ran between 2011 and 2016, can be found here: https://kaken.nii.ac.jp/en/grant/KAKENHI-PROJECT-23251016/. There is a forthcoming publication on its way in the proceedings of the 5th and 6th Delta Survey Conference and Workshop (which took place in 2017 and 2019).

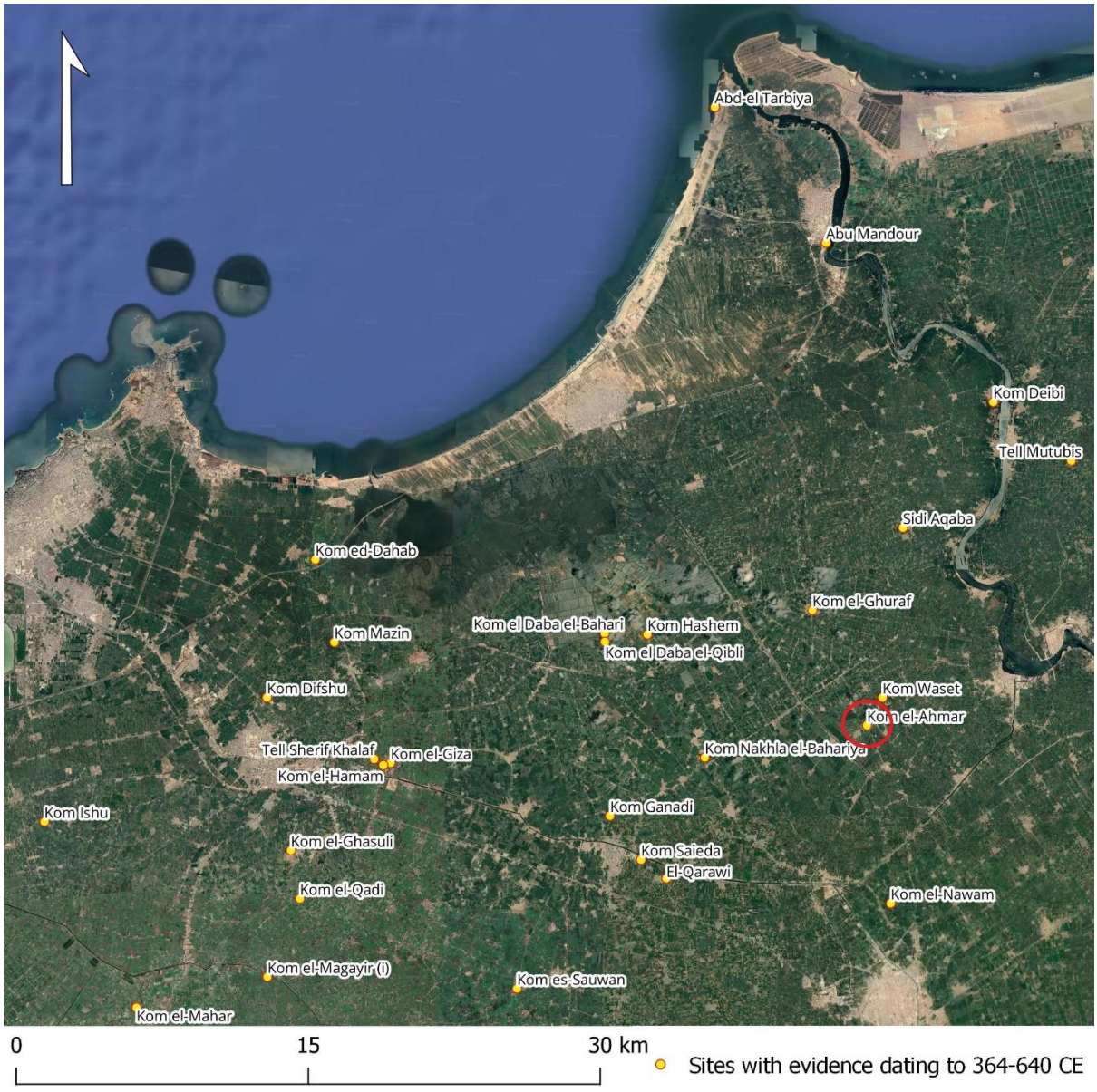


Figure 44 Satellite image of the northwestern Nile Delta with the location of archaeological sites with materials dating to 364-640 CE. The red circle indicates Kom al-Ahmer's position. The site distribution was attained using a PostgreSQL database with temporal information based on the Egypt Exploration Society's Delta Survey (Hinojosa Baliño 2022 see Appendix. Postgre SQL Database; used with permission of the author) (Google Earth, Data SIO, NOAA, US Navy, NGA, GEBCO, Image Landsat / Copernicus 2015).

Kom al-Ahmer was located in proximity to Lake Idku. According to the auger coring results, the site was placed over the eastern levee of a minor Nile branch, which was estimated to have a width between 50 and 100 metres (Pennington 2019: 65) (see Figure 27). The site expanded west in the Roman period in response to the movement of the minor Nile branch west of the site (Pennington 2019: 64, 66). The western part of the site is where the Late Roman neighbourhood is located. There is the possibility that the western part could have hosted a harbour or jetty due to the presence of the waterway, but it has not been confirmed archaeologically yet. Based on the current research on the site of Kom al-Ahmer by the Italian-Egyptian archaeological mission, the settlement hosted the capital city, of the

Metelite *nome*, Metelis at some point in its long occupation (Asolati 2015; Eller and Kenawi 2019; Kenawi 2014: 112–13, 2015; Marchiori 2014; Mondin 2016). The argument has been discussed using data from the archaeological excavations —the structures uncovered thus far, pottery remains and numismatic evidence, as well as findings registered during the *sebakheen* excavations of the first half of the 20th century, which included sculpted heads of Ptolemaic queens and kings, a bronze statue, as well as an inscription bearing the name of Metelis—, the consultation of historic Arab sources, and the presence of the Roman bath complex, whose size is similar to that of the baths present at the site of Kom el-Dikka (Alexandria) and may have thus been conceived to oblige to a local elite. After the survey of over sixty sites in the modern region of Beheira, Kenawi (2014: 112–114) argued that the capital of the Metelite *nome* was probably located in the region and considered Kom al-Ahmer as a strong candidate for the location of Metelis, possibly having been hosted formerly at the nearby Kom Wasit.

The Metelite *nome* was established in the Roman period in the northwestern Delta, possibly in relation to the management of the hydraulic system of the Idku basin (Wilson 2012: 106); its capital was Metelis (Μέτηλις; *Métēlis*) (Jones 1971: 313, 344) and its territory used to be part of the former seventh *nome* of Lower Egypt (Jansen-Winkeln 2006). The precise location has been the subject of debate and has recently been argued for the three largest sites in Beheira: Kom al-Ghoraf (40 hectares), Kom al-Ahmer (23 hectares), and Kom Wasit (13 hectares), which are all within 6 km from each other (Kenawi 2019b: xvii; Sist 2011: 152–3, 2013b: 109, 2013a: 49; Wilson 2012). Due to its position[42] and relevance, Timm (1988: 1608) also considered Kom al-Ahmer a possible venue for Metelis, though no conclusive reason was offered. The settlement continued to be occupied in the Islamic period, and it was then known as Maṣil (Jansen-Winkeln 2006). It was inhabited until the 11th century CE (Timm 1988: 1607), but Eller and Kenawi (2019: 4) discussed that it was functioning at least until the 14th century based on Coptic and Arabic textual sources. The archaeological evidence for Kom al-Ahmer testifies that it was occupied into the Islamic period at least until the 10-11th centuries CE (Mondin 2019: 76).

Eller and Kenawi (2019: 4) discussed the possibility of Kom al-Ahmer having hosted a metropolis due to its function as a 'commercial hub' based on the imported materials, including many of the pottery findings from Cilicia, the Aegean, and the Eastern Mediterranean (see Kenawi 2015: 283–95), the findings retrieved by the *sebakheen*, and the site's size. Despite the encroachment of the agricultural fields and the release of a portion of land on the southern side of the mound, the modern size of the archaeological site (23 hectares) seems to have been similar to the ancient one (Pennington 2019: 66). Nevertheless, the topographic survey suggests that the site's dimensions may have been more prominent in antiquity (Hinojosa Baliño 2019: 52). According to Habachi (1947: 285), the site's size was approximately 57 feddans (25 ha) in the 1940s; though this figure contrasts with one of 60-70

[42] Timm specified it was the area delimited by the Rosetta branch of the Nile, near Fuwwa, Lake Idku, and Abu Hummus, Zāwīyat Gazal and Iflaqa.

feddans (between 25.2 and 29.4 ha) provided by El-Khashab (1949: 28), the *sebakheen* operations of soil removal could be accountable for this discrepancy. Looking at Mahmoud El-Falaki's 1866 map (Figure 45), Kom al-Ahmer was shown as smaller than its neighbour Kom Wasit, even though Habachi wrote that the latter was not larger than 31 feddans (13 ha).

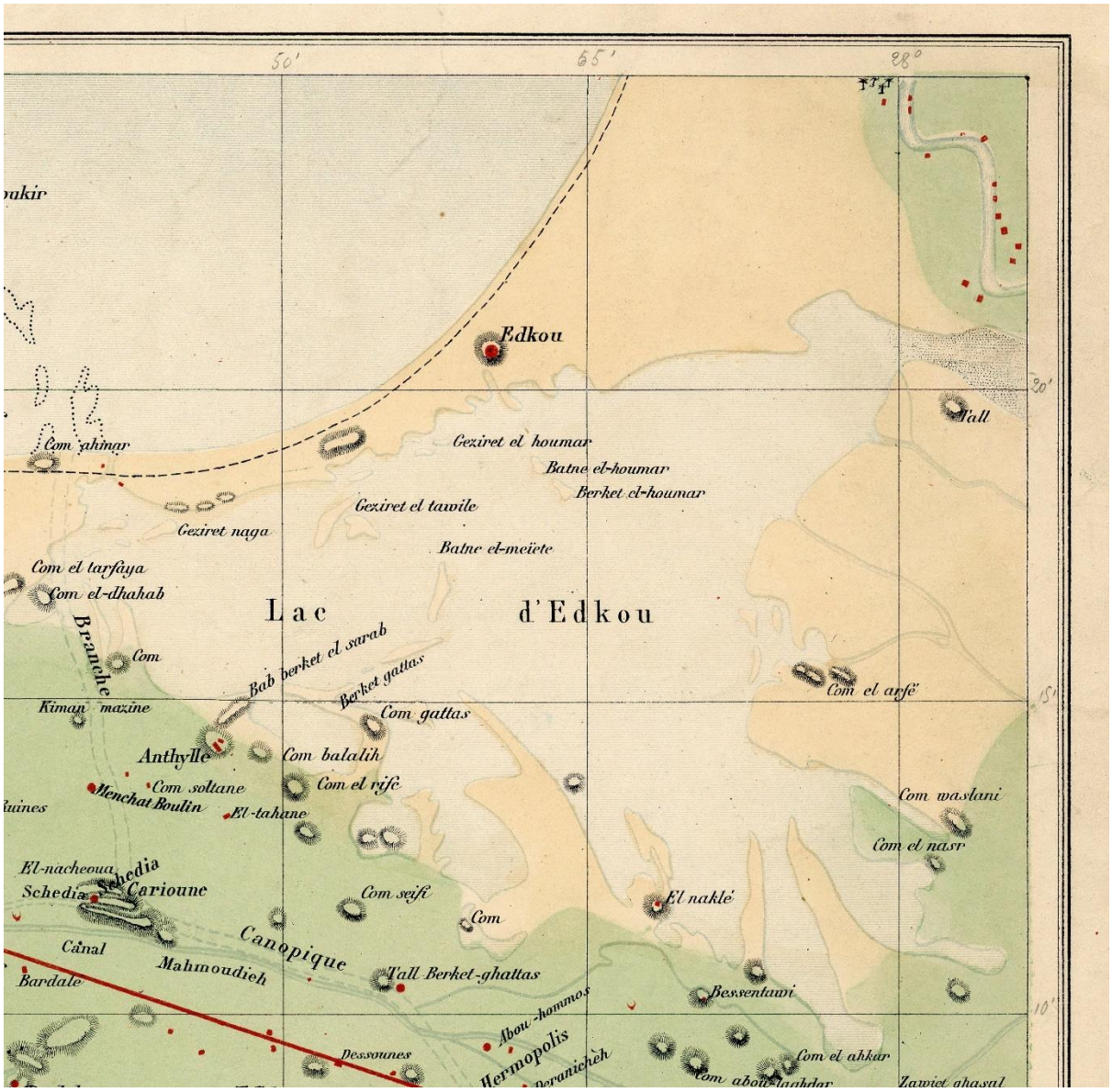


Figure 45 Detail of Mahmoud El-Falaki's 1866 map 'Carte des Environs d'Alexandrie': Kom al-Ahmer is indicated as Com el Nasr, Kom Wasit as Com Wastani, and Kom el-Ghoraf as Com el Arfe' (on the right side of the map).

At 23 or 25 ha, Kom al-Ahmer's dimensions are smaller when compared to those of Delta regional capitals, with Thmuis having a current area of 90 ha (Gentelli and Medhat 2017: 331; Lorenzon et al. 2020: 106), Athribis extending up to 190 ha (Vernus 1978: xvi; Dabrowski 1962: 21 mentioned that Athribis was about 182 ha during the Roman period), and Tanis reaching 177 ha (Bagnall 1993: 52). We can also compare it to the size of nearby sites: Kom al-Ghoraf, which lies roughly 6 km north-

northwest of Kom al-Ahmer, is about 32 ha (Sist 2011: 140),[43] whereas the preserved two mounds of Kom Daba el-Qibli, approximately 14 km west-northwest of Kom al-Ahmer, measure roughly 7 and 1 ha.[44] We can also compare its dimensions with some of the Fayum, Middle Egypt, and Delta settlements of the Roman period: Arsinoe (236 ha) (Kelsey 1927: 78–9), Bakchias (50 ha) (Rossetti 2017: 292), Euhemeria (65 ha) (Grenfell and Hunt 1899: 9), Karanis (80 ha) (Husselman and Peterson 1979: 7), Narmouthis (17.5 ha) (Bresciani 1968: 23), Naukratis (32 ha, not including previously excavated and destroyed areas) (Coulson and Leonard 1981: 1) Oxyrhynchus (100 ha) (Grenfell 1897: 2), Soknopaiou Nesos (15 ha) (Bagnall 1993: 52, deduced from Boak, Peterson and Haatveldt 1935: 3), and Tebtynis (50 ha) (Brooks Hedstrom 2017: 194; Gallazzi and Hadji-Minaglou 2000). Though of later occupation and in a different region, it could be helpful to review also the dimensions of Djeme, which has been described as a 'provincial country town […] substantial but not particularly large by the standards of the time' (Wilfong 2002: 8). Its dimensions during the 7-8th centuries CE were 11 hectares, which may have been restricted by the temple's enclosure wall.

Based on the dimensions of the archaeological site, Kom al-Ahmer could have hosted a town; however, the site dimension cannot be used as a sole guideline, especially since we cannot take for granted that the whole extent of a site would have been occupied contemporaneously. Not to mention that what were considered cities in the past could be regarded as country towns from a modern perspective (Bowman 2000: 173). Moreover, some settlements were as large as regional capitals (Bagnall 1993: 111), implying that size was not a defining factor. Bagnall (1993: 52) mentioned that most cities would have not extended beyond a square kilometre (100 ha) and singled Arsinoe out as 'far larger than most of those known [cities].' Kom al-Ahmer is one of the largest sites recorded in the region of Beheira, second only to Kom al-Ghoraf (Kenawi 2014: 112). This fact could suggest that the sites of this area were generally smaller than those of other regions, perhaps due to the combination of low-lying land and the annual inundation, which would have limited the available space.

To summarise, Kom al-Ahmer was one of the main settlements of the region. As mentioned in *Section 2.2 – A wetland environment between the coast and the desert*, its position on the shores of Lake Idku in antiquity indicated that it had access to the water body and the waterways reaching it as well as the sea. This position allowed for duties related to hydraulic management, but also monitoring traffic control, which meant that it had access to the trade network within and beyond Egypt (Eller and Kenawi 2019: 5; Mondin 2019). It was a location in the hinterland and *en route* to Alexandria through which flowed the trade network that flowed from the country to the capital, thus it was surrounded by agricultural land which it mostly likely managed and cultivated. This section allowed to grasp the situation of the site during the Late Roman period and it provides a background against which the

[43] Dr Loredana Sist, who excavated the site with a project coordinated by the University of Roma La Sapienza, suggested that the site's extension reached 55 ha in the past (Sist 2011: 139–40).

[44] The two mounds were originally one single, larger mound that was split at least since the 1960s (https://www.ees.ac.uk/daba613).

archaeological data will be discussed in the next two chapters, which are dedicated to the analysis of the house's archaeological remains, stratigraphy, and finds.

Chapter 3 – The case study house

I never left because a part of me will always be in that house.
J.X. Burros (2012), Scarlet Spotlight

The research is based on the excavation of a Late Roman house at Kom al-Ahmer in the northwestern Nile Delta. This chapter will detail the results of the archaeological excavation of the house's remains and will include both published and unpublished data. The retrieved data allowed to generate tentative 3D reconstructions of the house and the surrounding buildings and structures. The reconstruction identified the evolution of the house's architecture and use from construction to abandonment. All the contexts identified by the excavation will also be presented. Detailed archaeological data can be found in the Appendix to Chapter 3, The excavated contexts. This chapter's objective is to answer the research question regarding how much can be discerned archaeologically about this building.

The house's chronology was proposed between 350 and 450 CE. Finds of coins and pottery imports have been used for dating. The house's latest recordable phase of use, which coincides with that of the nearby amphorae storage building, was between 425-450+ CE (Asolati and Crisafulli 2019: 13, table 1.3; Mondin 2019: 67, 69, 81, table 2.18). The dating of the house will be explored in the following section, in conjunction with the illustration of the subphases of the main phase of use of the house.

3.1 – Excavation methodology

The excavation unit where the remains of the Late Roman house were identified was opened as part of the Kom al-Ahmer – Kom Wasit Archaeological Project. The unit was assigned the number 4 as it was the fourth unit opened by the Italian mission at Kom al-Ahmer. The area —on the western side of the site— was selected according to the project's aims and objectives, which included investigating different occupational phases at the site's disparate elevations. The western side of the Kom had not been investigated yet and exhibited a different elevation than the central mound, already subjected to excavation.

The excavation of the unit's contexts was dictated by research questions, the field season's schedule, and the number of days dedicated to excavation. These parameters had a pivotal influence on how the excavation was conducted. Time limits, budget, and travel availability fall within logistics, which is often not compatible with the objectives set by research questions. The amount of time necessary to comprehensibly excavate an archaeological context is not quantifiable beforehand; one can advance a rough estimate regarding the amount of time required, but ultimately it will depend on the

complexity of the context. Each excavation season dedicated to the investigation of Unit 4 affected the methodology depending on the logistics; longer seasons allowed for the excavation of multiple contexts, whereas the shorter ones focused on a specific context.

Though the approach was to plan a strategy that prioritised work that would permit understanding the exposed contexts and avoid beginning new ones only to leave them partially exposed, it was not always possible to carry this out. The preservation conditions were also not ideal; at Kom al-Ahmer, the site is open and crossed by the locals daily. A site guardian lives in the adjacent village of Rawdat al-Mughazi, but the position seems to be more concerned with registering looting episodes than monitoring the site. Additional guardians are employed during the excavation periods, and they are present on-site from dawn until dusk. Despite the efforts, it has not always been possible to avoid looting occurrences; this knowledge is considered when planning the excavation strategy and has repercussions on work performance.

The excavation was carried out manually, and different tools (shovel, hand-axe, trowel, small tools for micro-excavation) were employed depending on the context. Finds recovery was aided by sieving all the excavated soil (except for the surface layer, which contained hazardous modern items and waste). All the architectural features and material culture found in situ were mapped with a total station according to the reference system set up by Hinojosa Baliño (2019: 49–50) for the sites of Kom al-Ahmer and Kom Wasit.[45] The excavation units were numbered sequentially. The contexts (*loci*) identified within each unit's limits were named features and assigned a number starting from the thousands; for instance, the first few features of Unit 1 were 1000, 1001, 1002, 1003, and so on. Therefore, the first four features of Unit 4 were 4000, 4001, 4002, and 4003. This numbering system was related to the digital database kept on FileMaker, and its purpose was to avoid number repetitions. All features were assigned a number; some features were given a sub-feature number; an example is F4126 SL001: F stands for feature, 4126 is the sequential number reached when that feature had been identified, SL stands for soil sub-feature, and 001 is the sequential number assigned to sub-features as there may be more than one. The typologies of sub-features range from SL (soil), WA (wall), FS (floor/surface), IS (installation), IT (interment), and SK (skeleton) (The Directors and Staff of the Tell Timai Project 2017: 7). The sub-feature number was intended to directly link it with the feature by underlining an immediate relation (such as that of cut and fill). This method was adopted throughout seasons 2016 and 2017 but was not utilised in seasons 2018 and 2019.[46]

All features were photographed and, when required, the contexts were recorded with photogrammetry. Artefacts found in situ were also photographed before removal. All finds were assigned to the feature within which they were encountered. Each find was allocated a bag number, and

[45] The coordinate system used is WGS 84/UTM Zone 36N.

[46] The reason for not using this method was related to compiling the field data within a FileMaker database, which had been set up prior to the introduction of sub-features; thus, the insertion of the sub-features did not agree with the database's organisation. As such, I was asked not to use them any longer.

this numbering was sequential (from 001 onwards) due to its association with the excavation unit. The first find from feature 4000 was bag 001, whereas the first find encountered in feature 4001 was bag 055, and the first find from feature 4002 was bag 078. Small finds were distinguished and assigned their individual bag number; their position was registered with the total station. Following the study of finds in the excavation laboratory and the publication of the first and second monographs of the 2012-2016 excavations, the finds were assigned another set of numbers with an initial acronym to distinguish the category; finds termed with KAC (Kom Ahmer Coins) referred to numismatic artefacts, those with the acronym KAO (Kom Ahmer Objects) to objects, and those starting with KAP (Kom Ahmer Pottery) to ceramic remains.

Some artefacts are currently under study; therefore, some objects will not have been assigned a KAC/KAO/KAP number yet. In that case, the artefacts will be termed with the bag number assigned to them during excavation, e.g. bXXXX. Coins of the same feature that were retrieved from the sieve were assigned the same bag number. In the likelihood that more than one coin from the same bag is mentioned, the bag number will be followed by another number distinguishing the coin; for instance, if nine coins were collected from the sieve while excavating one feature, they will be referred to as bXXXX(1), bXXXX(2), bXXXX(3).

Information about each feature was recorded on the field feature forms; the project used the feature forms devised by the team working at Tell Timai (Timai el Amdid) in the Eastern Delta, in the province of Daqahliyah, under the direction of the University of Hawaii at Manoa (The Directors and Staff of the Tell Timai Project 2017).

3.2 – Reconstruction of the phases of use of the house

The excavation results and the analytical analysis of the stratigraphic sequence, the architectural remains, and the material culture allowed us to distinguish between different life phases of the house, categorised into main phases and sub-phases. The former includes the main construction events that led to the creation and destruction of the house, whereas the latter refers to additions that complemented the main structure. Tentative 3D reconstructions of the house represent these subphases. These representations facilitated the linking of the archaeological data to its human aspect, as in how the architectural remains had supposedly been envisioned for use —and hopefully, how they had been used— considering what is known of the Late Roman period in Egypt.

Figure 46 illustrates the complete plan of the excavation unit; here, its purpose is to provide a reference of the building's locations to the reader; hence it includes buildings and constructions that did not exist simultaneously (for instance, the southern and eastern additions).

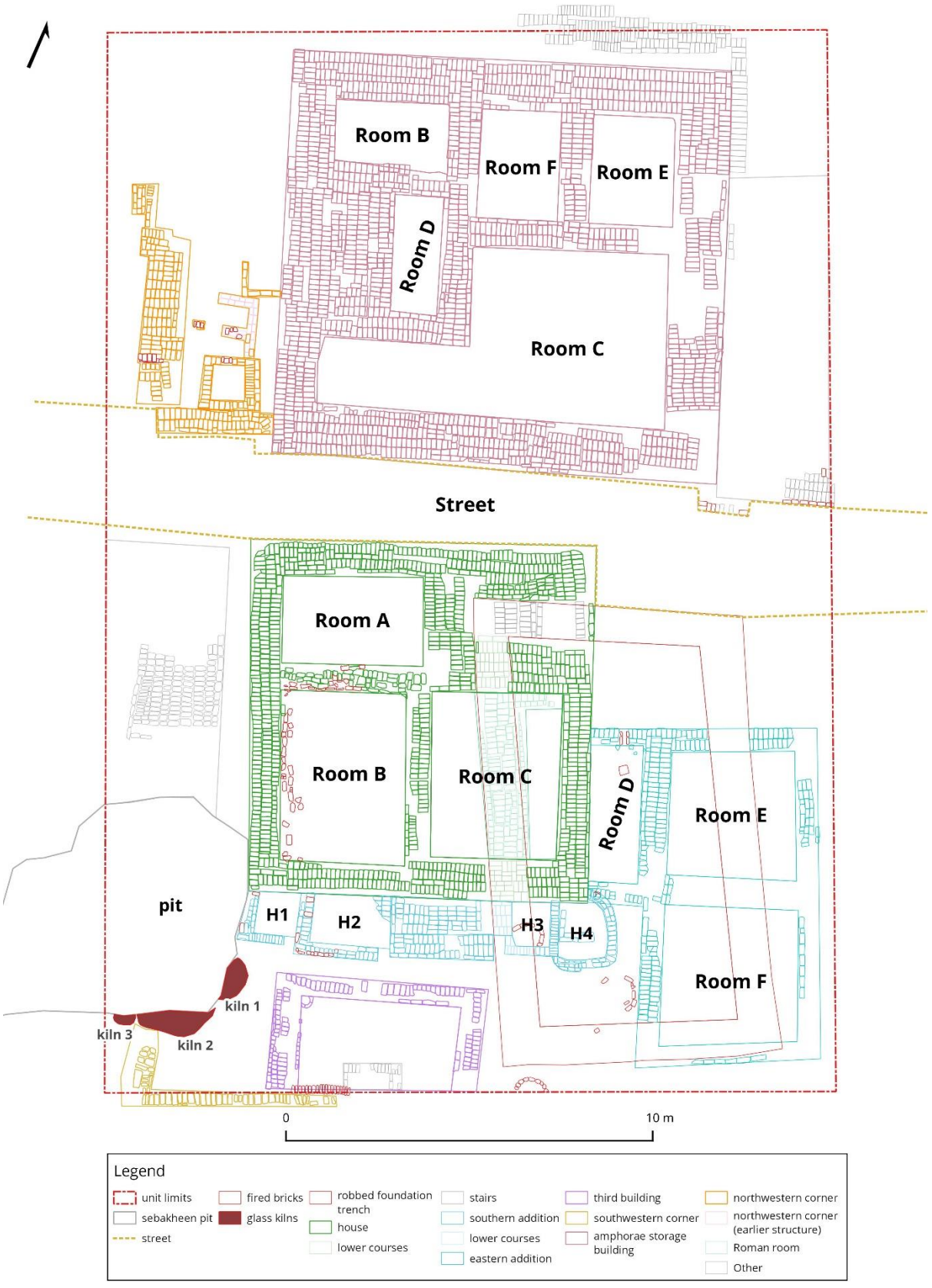


Figure 46 The complete plan of the excavation unit with all the buildings and structures identified until now.

The points of view used for the tentative 3D reconstructions are illustrated in Figure 47. The following figures (Figure 51, Figure 53, Figure 55, Figure 56, and Figure 58) represent tentative reconstructions of the house's subphases. These images are meant to act as visual guides to allow the reader to grasp the architectural development better. Bullo and Ghedini (2003: 348) referred to a (unreferenced) quote by Andrea Carandini that stated 'una casa non si può realmente comprendere se non la si ricostruisce fino al tetto.'[47] In a seminar for the Classics Department of Durham University, Dr Lesley McFadyen mentioned that plans flatten the temporal qualities of the remains.[48] Therefore, it was decided to venture and represent the house entirely, though some details had to be deduced. For instance, the representations include the drawing of a door on the southern façade of the house, even if the position of the door could not be inferred archaeologically; as such, it should only be considered an assumption. While evidence points towards the existence of a main front door for the houses, in some instances, there is also evidence (including ethnographical evidence) that some houses may have had a back door that would have been used in conjunction with animal keeping (Boozer 2016: 198–99; Correas-Amador 2013: 84, 138–139; Grossmann 2007: 131; Huebner 2016: 162). In the case study house's situation, the animal pen and the hearths could have required more direct access for the inhabitants. In this case, the mastaba could have served as a step or base for a stairway (see Appendix to Chapter 4, Appendix to Architectural survey, Entrances). Regardless, this remains a guess.

[47] A house cannot really be understood if it is not rebuilt up to the roof (my translation).
[48] The seminar was titled 'Beyond the Primitive Hut - Archaeological Architecture on its Own Terms' and it took place online on Thursday 11th March 2021.



Figure 47 The plan indicates the points of view of the tentative 3D reconstructions of the subphases of the house's main phases of use. The photograph icons represent the location where one would be standing to see the house and the other buildings as represented in the tentative 3D reconstructions.

CONSTRUCTION PHASE 1 (4th century, likely 350-400 CE): The construction phase is a tentative proposition as it was only possible to view the relevant material within one room. The ground was levelled, and foundation trenches (F4243) —rather than a single square trench within which fit the whole building— were dug into the levelling layer (F4074 and F4229). The trenches cut through the pre-existing structural remains, those pertaining to a building dating back to the 1st-2nd centuries CE (see *Section 3.3.4.2 – The context below Room C*). The builders did not opt to use the earlier building's walls as a base for the new one —as seen in Karanis— even though the wall width was slightly larger (see *Section 4.2 – Architectural survey*). It is assumed that the foundation trenches' design would had been a square plan.

CONSTRUCTION PHASE 2 (4th century, likely sometime between 350-400 CE): The mudbrick wall foundations were placed onto the foundation trenches; however, foundation trenches were not detected for all walls, which could mean that the space filled with soil was present on the other side of the wall, or the bricks had filled the trenches. The walls rose high; the perimeter walls exhibited a sequence of offsets that made them progressively thinner as the height increased. The presence of offsets can indicate upper storeys; indeed, they were observed only on the perimeter walls, not on the internal ones (Figure 48 and Figure 49) (see *Section 4.2.3 – Walls*). The height of the building was estimated to about 8 m based on F. Arnold (2003b) and McHenry's (McHenry 1984) work (see *Section 4.2.3.1 – Width of the wall remains*).

Attention should be paid to the wall's lowest part, whose exposure was attained solely in one room (Room C). The mudbricks of the eastern wall (F4032) were laid directly over the ground; a damp course was not detected. The foundation base of this wall exhibited an undulating trend, but on closer inspection, it could be observed that the two deeper parts are not an entire course of bricks but seem to be fillings, perhaps in an attempt to render the base of the trench flat (see *Section 4.2.2 – Foundation trench(es)*).

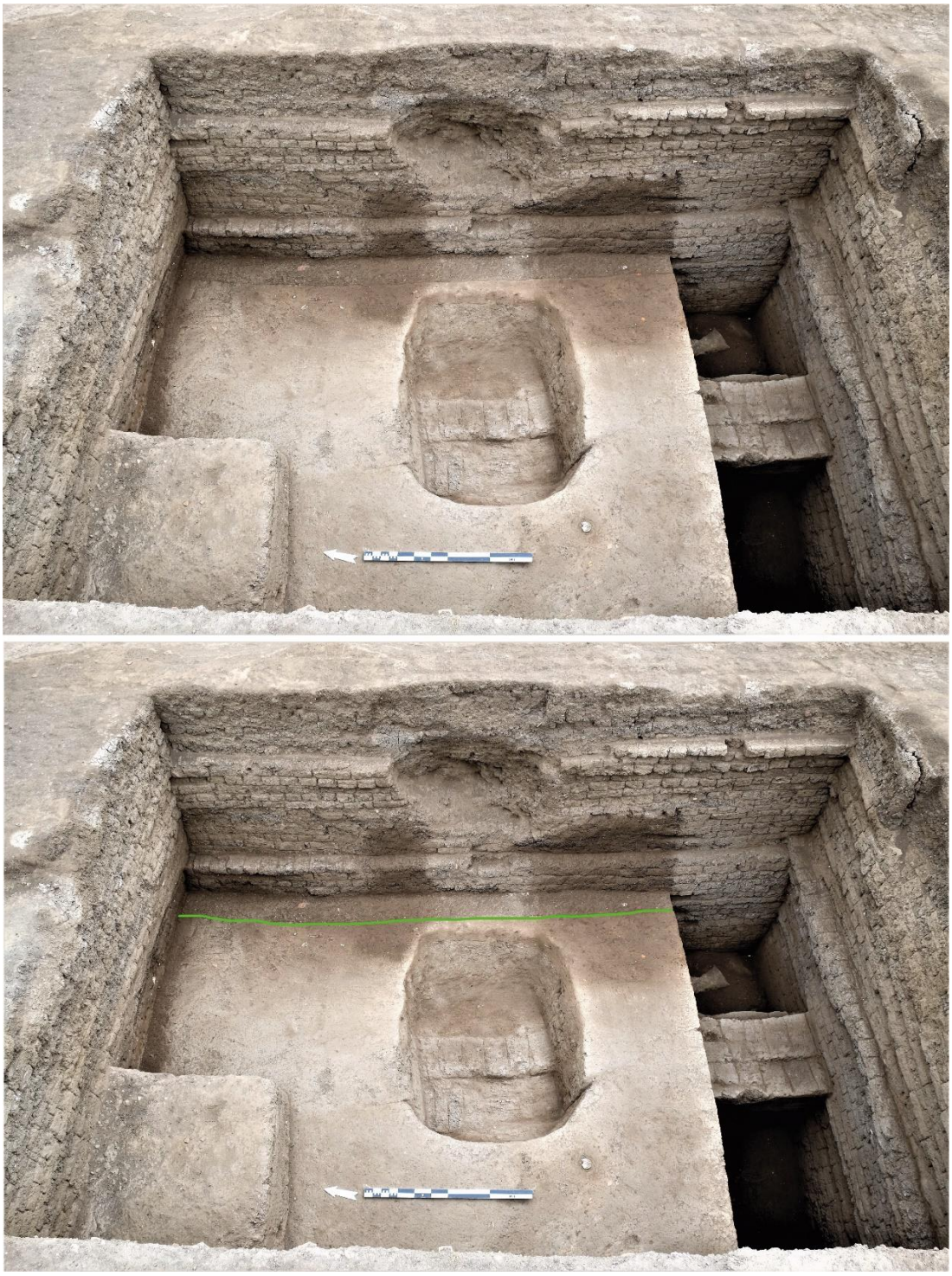


Figure 48 The house's Room C; the foundation trench is visible alongside wall F4032. The green line marks the limit of the trench. The trench cuts through the beaten earth levelling layer F4229. Note that the oval cut in the middle of the room and on the eastern wall were the result of a looting activity that took place sometime between November 2018 and April 2019.



Figure 49 Profile view of the foundation trench F4243 with its fill F4242 (photographer facing N-NW). The green line marks the limit of the trench.

MAIN PHASE (between 350-450+ CE): The main phase comprises four subphases and a tentative fifth.

- *SUBPHASE 1*: the building presented a square plan, which seems to have been the builders' design, and was constituted by mudbricks covered in mud or plaster. The high amount of painted plaster fragments recovered from the deposits within the building leads us to think that the internal façade of the walls had been decorated with colourful motifs. According to the outside surface, the preserved remains of the rooms were underground. The northeastern portion of the house could have been reserved for stairs. A fired brick-lined hearth was present in the southeastern courtyard (Figure 50 and Figure 51).



Figure 50 Plan of the unit showing the house's main phase – subphase 1.

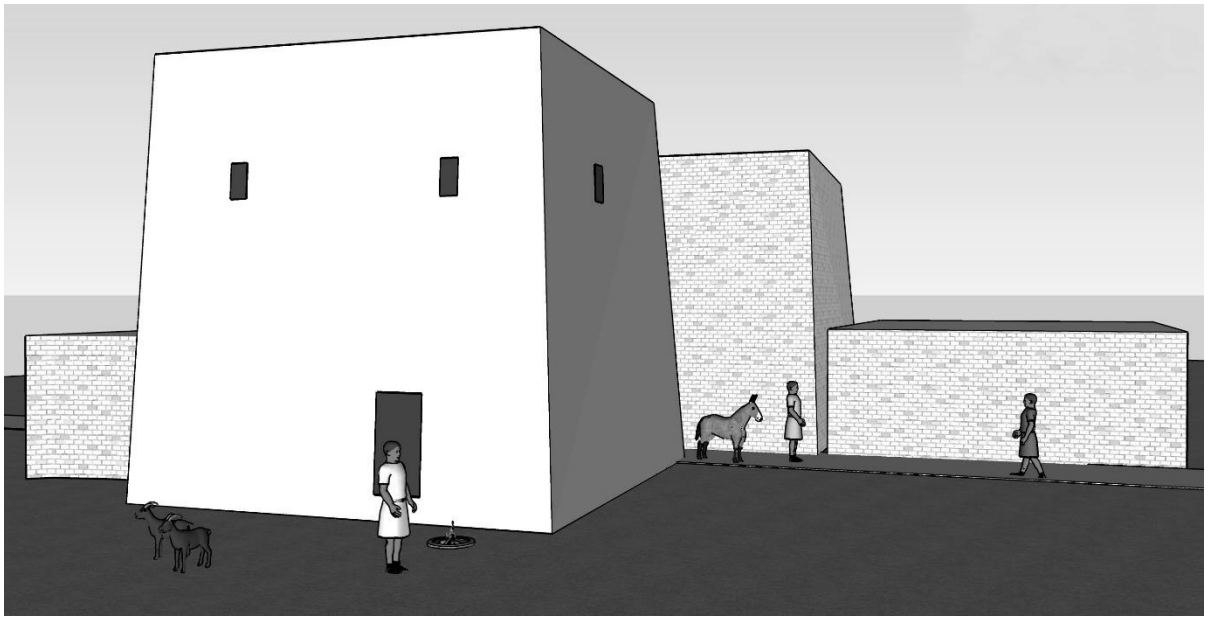


Figure 51 Tentative rendition of the house and its immediate surroundings: main phase – subphase 1.

- *SUBPHASE 2*: From this subphase onwards, we witness constructions emerging around the house, specifically adjacent to the southern and eastern sides, probably where space was available and possibly a bit shielded from the nearby street. We grasp the dichotomy between what the builders constructed and what the users modified to tailor the space to their needs. A mudbrick mastaba (F4063) is added against the southern wall (Figure 52 and Figure 53). It could have been used as a bench or step, but it eventually became part of the *subphase 3* addition.



Figure 52 Plan of the unit showing the house's main phase – subphase 2.

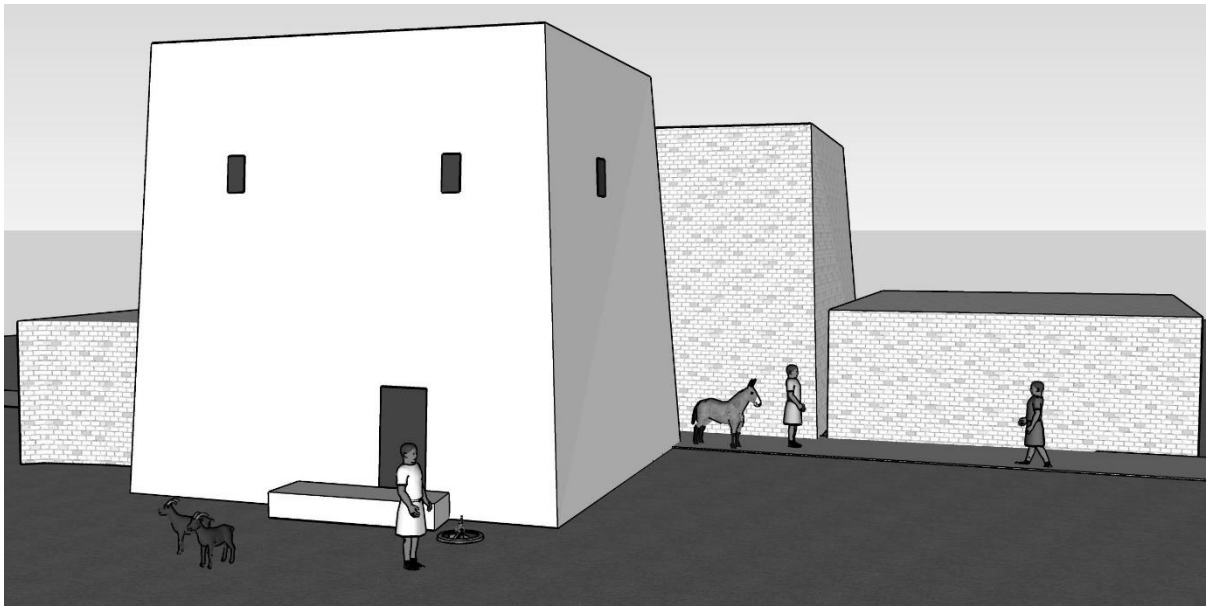


Figure 53 Tentative rendition of the house and its immediate surroundings: Main Phase – Subphase 2.

- *SUBPHASE 3*: implementation of the southern additions, a set of small walls that created small, enclosed spaces; they were placed on both sides of the mastaba, which in turn was enlarged towards south, thus enhancing the division between the small spaces. The first to be built was a storage bin (termed small room H3), followed by the oven against it (H4), the addition to the mastaba (F4210), and then the small rooms to the west (H1 to the west and H2 to the east). One of the small rooms contained the remains of hearths, thus highlighting a change from open-air hearths to partly enclosed ones (Figure 54, Figure 55, and Figure 56).
  - ❖ The southern addition interfaced with another building, which at a certain point was constituted by an open-air room with temporary roofing and was possibly used as an animal pen (Figure 56).



Figure 54 Plan of the unit showing the house's main phase – subphase 3.

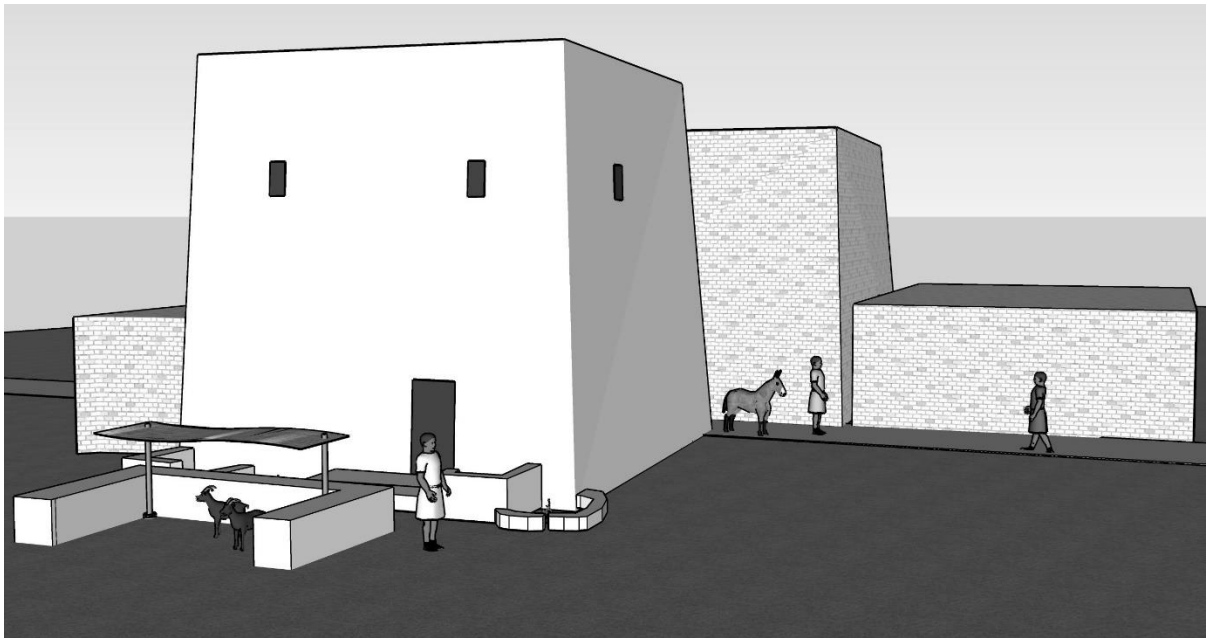


Figure 55 Tentative rendition of the house and its immediate surroundings: Main Phase – Subphase 3.

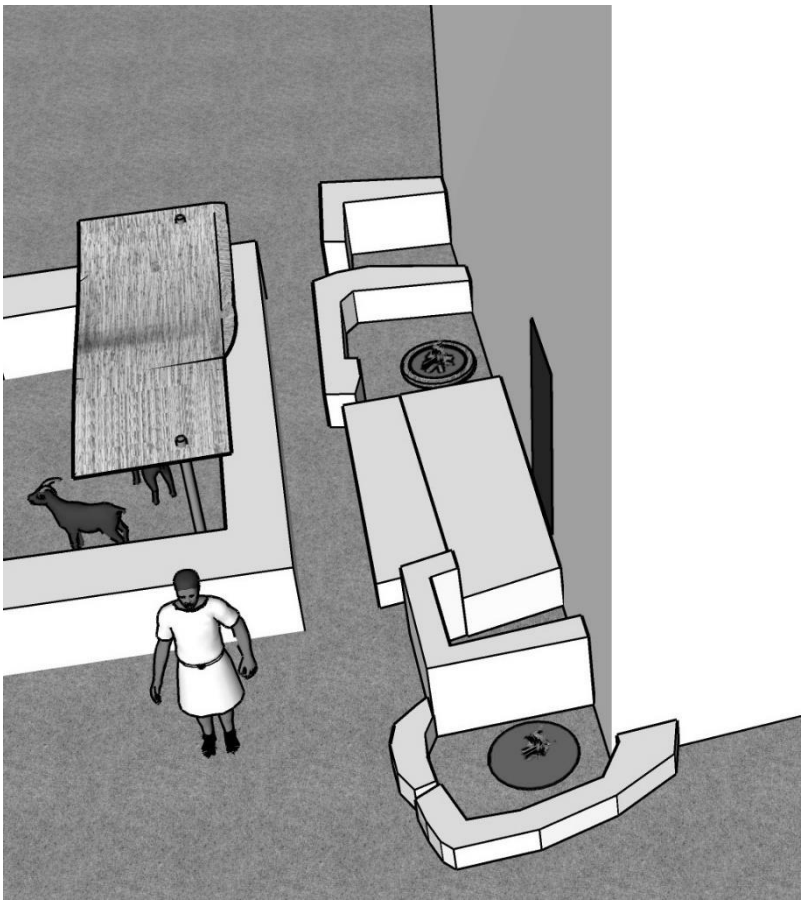


Figure 56 Tentative rendition of the house and its immediate surroundings: Main Phase – Subphase 3.

- *SUBPHASE 4* **(425-450+)**: the southern addition was abandoned in favour of the construction of the eastern addition, partially built over the eastern side of the southern one. In this case, the enclosed space is subdivided into distinct but larger parts. The construction and use of the eastern addition are accompanied by the presence of fired brick-lined hearths placed in the southern courtyard, indicating that cooking was moved 'outside' again (Figure 57 and Figure 58).
    - ❖ The area immediately southwest of the house was employed for activity related to glass production. Some glass kilns were placed in proximity of the house and dug into soil deposits that covered the southern addition.
    - ❖ The third building is demolished and partially built over by two small walls that seem related to the kilns in the southern courtyard, possibly to partly enclose it or provide shelter for the activities undertaken there, though one of the walls cut one of the westernmost kilns.
    - ❖ Tentative *SUBPHASE*: the underground rooms are forsaken in favour of the ground floor, revealed by the presence of what was termed 'coin floor.' The 'coin floor' is characterised by a coin dispersal, whose distribution seems to be linked to the house's last recordable phase of use. One of the house rooms (Room B) exhibited what could be a skirting in fired brick (F4050 SL001) against two walls at an analogous elevation as that of the 'coin floor.'



Figure 57 Plan of the unit showing the house's main phase – subphase 4.

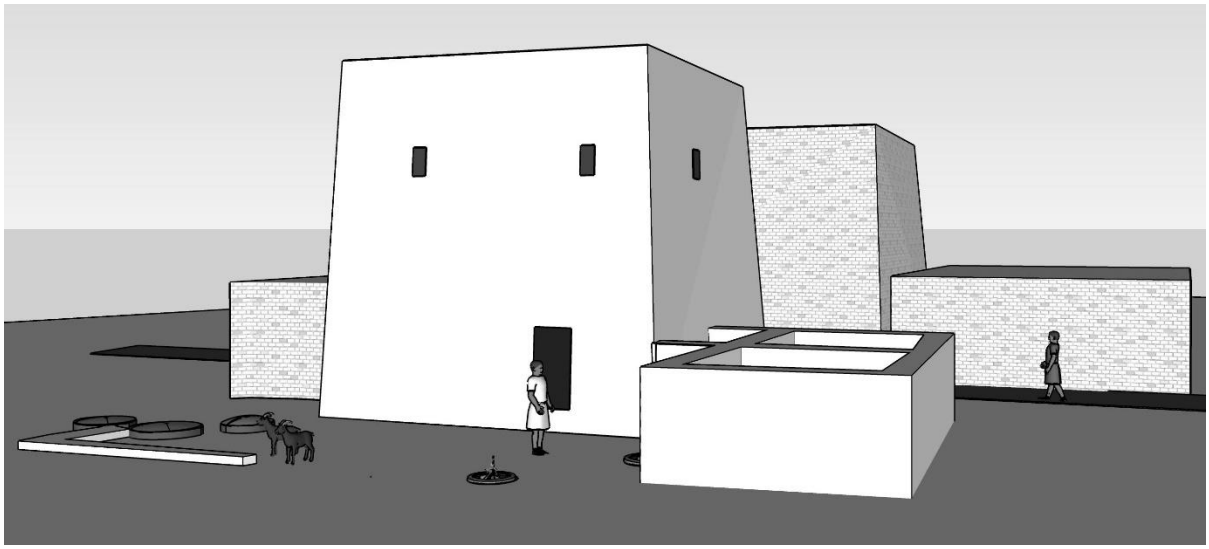


Figure 58 Tentative rendition of the house and its immediate surroundings: Main Phase – Subphase 4.

END PHASE (after 450 CE): the house is knocked down, and the area becomes repurposed with the construction of a new building for which a foundation trench (F4126) was dug. This new trench cuts through the eastern side of the house and the eastern addition, denoting again that the levelled walls of the house were not used as a base for a new building. The new foundation trench more or less follows the general orientation of the buildings in the neighbourhood, implying continuity within the urban plan (Figure 59). A new construction technique is noted with the inclusion of a layer fired brick packing placed at the base of the trench.

END PHASE (CONTINUED) (after 450 CE): the new building is either never built or never finished; the foundation trench is robbed out in antiquity; the neighbourhood seems to have been abandoned in favour of a move towards the east within the settlement (the central and eastern mounds).



Figure 59 Plan of the unit showing the house's end phase.

The chronology of the house can be determined based on some specific factors: its upper remains were cut by the robbed foundation trench, and two rims of ARSW form Hayes 91A permitted to date the robbing between 450-500 CE (Figure 60) (Mondin 2019: 65, 69);[49] this implies that the house was abandoned and levelled around that time. According to the pottery and coin finds, the latest recordable phase of the house's use occurred during 425-450 CE (Asolati and Crisafulli 2019: 15–16; Mondin 2019: 65). The use of the house could have continued up to the late 5th century as the use of specimens of African fine tableware (dish type Hayes 67, Hayes 59, Hayes 61A)[50] and coins could span from the 4th to the 5th century (Mondin 2016: 81–2, 133);[51] in addition, ceramics from the lower layers excavated within the boundaries of one of the house's rooms could be dated to the 3rd and 4th centuries CE (see Appendix to Chapters 3 and 4, Artefacts). The latest find retrieved from the excavation unit was a bronze coin (b1624(6)), which could date to 539-540 CE, to the reign of Justinian I. Though the dating is not certain due to the poorly preserved condition of the coin, the find was retrieved from a superficial layer (F4136) east of the house, which does not locate it in a secure context.



Figure 60 Drawing of one of the ARSW form Hayes 91A rims retrieved from the robbed foundation trench (F4126 SL002) (drawing by Dr Cristina Mondin, courtesy of the Kom al-Ahmer – Kom Wasit Archaeological Project).

It has been more challenging to ascertain the earliest rather than the latest phase of use. The lower remains are interfaced with the 1st-2nd centuries CE context of the Roman Room below the house (see *Section 3.3.4.2 – The context below Room C*), which establishes a temporal limit as the construction of the house followed the abandonment of the Roman Room and the levelling of the structure. There is no other structure between the Roman Room and the house; at least, it could not be identified in Room B nor the massive *sebakheen* pit that brushed the southwestern corner of the house (see *Section 3.3.13 – The 'hole' – the sebakheen pit*). Therefore, the evidence allows the inference that the house's construction must have occurred between the 3rd and 4th centuries CE. The coin evidence is not very helpful on this occasion: while the coins from the context of the house's Room B congruently all date to the 4th and 5th centuries CE (with one exception, KAC 24), none of those from Room C match with Room B, as the majority date to the late 3rd century CE, with some specimens providing earlier dating. The coins from the context under Rooms B and C mostly date back to the 2nd and 3rd centuries CE,

[49] Hayes 1972: 140–44.
[50] The chronology and typology are based on Atlante I 1981; Bonifay 2004; Hayes 1972.
[51] Bonifay 2016: 556–57.

with some specimens from the 1st century CE and a few Ptolemaic coins. As there are no structures with which to associate them, these findings could represent the time between the abandonment of the Roman Room and the subsequent use of the area before the erection of the house, implying that the area was frequented but not used for a specific purpose. Still, this context also yielded three coins of the 4th-5th century CE: one from the lowest layer reached under Room B and two within the Roman Room.

On the one hand, the discordancy with the other evidence from these layers could imply that these coins could be intrusions; b2613, though identified in a layer of the Roman Room, was found just below (3 cm) the internal face of the lowest course of the eastern wall of the house. It could potentially have been associated with the construction of the house. On the other hand, the coins' condition was poorly preserved, and it did not allow for more precise dating than to associate them to a particular century.

That being said, the construction of the house is most likely to have occurred sometime during the 4th century. If we consider Arnold's assertion regarding the longevity of Egyptian mudbrick houses —around 100 years, provided that they received ample maintenance, or between 30 and 60 years with lesser care (Arnold 2003a: 110) — then a maximum temporal framework of about 100 years would be the most optimistic scenario, which would curtail the house's lifespan between the second half of the 4th to the second half of the 5th century. A more moderate life span of 50-60 years would infer a construction date within the last quarter of the 4th century CE. Van Minnen (1994: 231) also estimated that Egyptian houses of the Roman period (based on research on Karanis) would last for two generations (about 70 years).

The construction phases fit within the urban plan of the neighbourhood, as seen in Figure 61. The Late Roman sector at Kom al-Ahmer seems to be well-planned and follows an orthogonal street network that divides the buildings into blocks of variable size. It must be stressed that this is a preliminary interpretation whose dependability can only be confirmed through excavation; the case of the southern and eastern additions to the house is an example of variable construction that could expand, or not, onto public areas such as the streets. A similar urban organisation can also be seen at Karanis during the Roman period (Barnard et al. 2015, figures 7B and 9), with more or less straight but not always parallel streets. The remains of Roman Bakchias allowed archaeologists to infer a similar situation (Rossetti 2019: 10), and the urban plan, developed throughout the Ptolemaic period, maintained a certain degree of continuity. In contrast, Roman Amheida reveals a more irregular plan (Davoli 2019: 4.6), which was shaped not solely by the fluctuating construction of buildings and installations but also by the erratic ground conditions, characterised by alternating cemented and soft sand dunes (Davoli 2019: 53–55).



Figure 61 Tentative plan of the Late Roman neighbourhood based on the observation of the aerial and satellite images. The case study house is bordered in yellow.

The subphases imply a need for the house inhabitants to create areas to carry out specific activities; it is unclear whether such activities were also carried out earlier; however, the introduction of the structures of the subphases denotes accessibility to space and resources to carry out these supplementary constructions. From what could be inferred from the site's Late Roman sector, not much space was available between the buildings as they were erected rather closely. It must be emphasised that Figure 61 provides an idea of the sector's plan and that the surface impressions do not necessarily coincide with the multiple phases of buildings, as the case study house has demonstrated. Barnard *et al.* (2015: 62–4) stated that the orthogonal layout of Karanis' east and west sectors implied that the occupation had been planned before construction. The builders of the Kom al-Ahmer case study house opted not to take advantage of the earlier Roman building and place the house's walls directly over those of the building of Roman date. The lack of knowledge of the entire plan of the Roman building and its surroundings does not allow to make explicit assertions regarding the reason behind this choice; however, it might have been influenced by a possible change of the urban plan, though this will remain a supposition pending on future investigations. In any case, it could also be possible that variations could occur within the settlement's 'blocks' delimited by the streets. Even the builders of the robbed foundation trench did not take advantage of the pre-existing buildings and expressly chose to cut

through the house rather than build over it when laying out the foundations of a new building, which conceivably did not disrupt the street system but might have re-arranged the spatial organisation of the block.

3.3 – The excavated contexts

3.3.1 Introduction

This section looks at the features of the house: the three rooms, termed A, B, and C, the staircase, the small external rooms adjacent to the south wall of the house, which was termed the southern addition, and the annexe abutting the eastern wall of the house, which is referred to as the eastern addition. The house is set in a neighbourhood; therefore, the features that surround it also form part of the analysis: the robbed foundation trench F4126 that was created following the disuse of the house and its additions, the third building south of the house, the glass kilns located southwest of the house, the amphorae storage building north of the house, the activity area on its western side, the beaten earth street that separates the house from the amphorae storage building, and ultimately a large pit that cut through the layers southwest of the house. More detail on the excavation of these contexts or areas provided in the respective sections of the Appendices. The simplified stratigraphic relationship of these contexts is illustrated in Figure 62. The complete matrix of the stratigraphy of Unit 4 is in the Appendix to Chapter 3, The Harris Matrix of Kom al-Ahmer Unit 4.

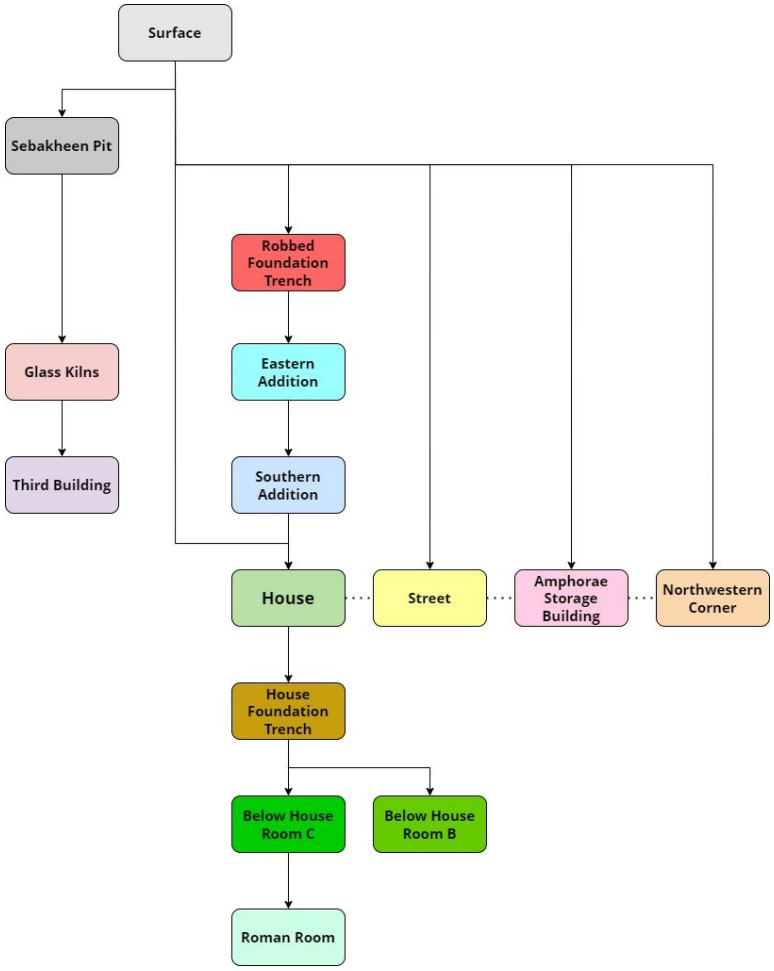


Figure 62 Simplified Harris Matrix of the contexts identified in Unit 4.

The remains of the house showed a building of square shape (Figure 63), whose dimensions are listed in Table 4. The southern side measures 9.24 m, the western side 9.59 m, the northern side 9.42, and the eastern side 9.73 m. The perimeter is 37.98 m. The total area of the three rooms adds up to 40.935 m².

Table 4 Dimensions and area of the Late Roman house and its three rooms.

Building / Room	Area	Perimeter	Shape
House	90.254 m² (including the walls)	37.98 m (excluding the additions)	Square
Room A	9.202 m²	12.471 m	Rectangular
Room B	15.883 m²	16.13	Rectangular
Room C	15.850 m²	16.06 m	Rectangular

Most of the exposed walls continue below the level reached by the excavation; only the foundation courses of wall F4032 were exposed. Architectural fixtures such as doors, windows, and niches were not identified within the house. The lack of fixtures indicates that the rooms' investigated levels are basements. Indeed, foundation levels are what are primarily found in excavation (Kemp 2000:

70), and this is particularly applicable to the case of the Nile Delta, whose environmental conditions do not favour organic preservation. The excavation also revealed that the quantities of material culture were limited —except for pottery and coin finds— and mostly fragmented, thus highlighting the processes of abandonment more than the utilisation of the contexts.[52] This condition rendered the interpretation of the rooms' use and function challenging, though the concept of flexible use of space has also been considered (see *Section 4.3.2 – WFH (work from home): small scale workshops*).

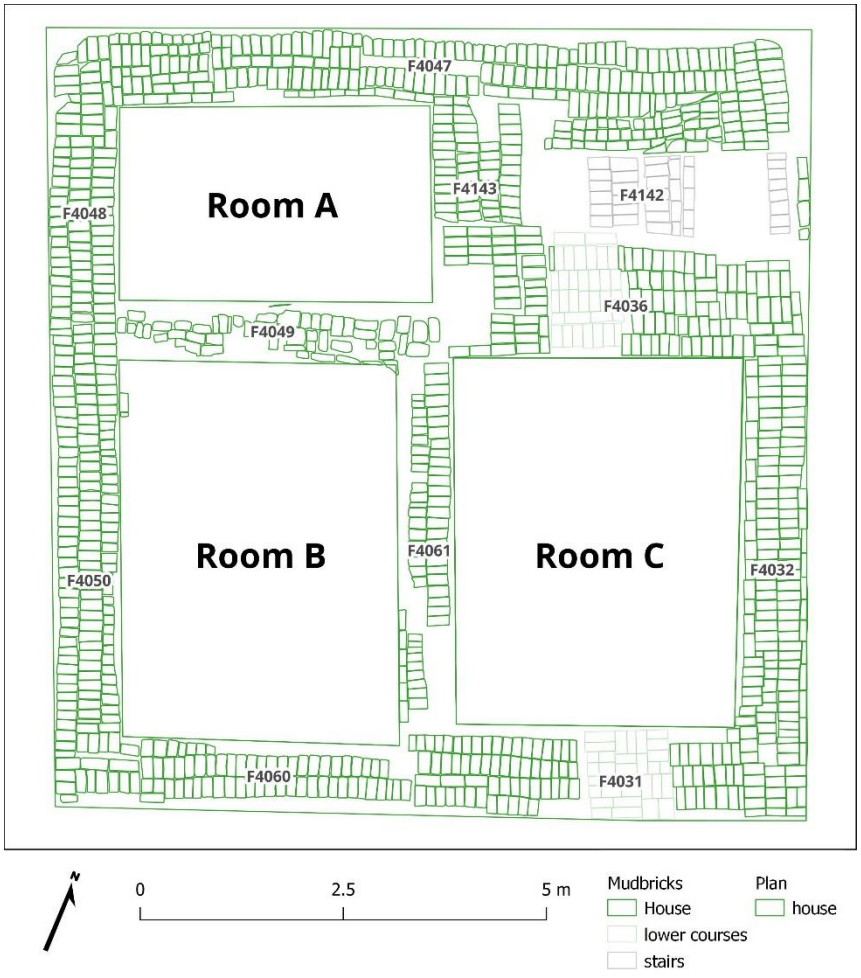


Figure 63 Plan of the house (main phase - subphase 1).

3.3.2 – House Room A

Room A is the northwestern room of the house, located in the northwestern corner. It is rectangular and delimited by the external walls F4047 and F4048. The walls F4049 and F4143 delimit it internally. Wall F4049 exhibited the inclusion of some fired bricks within its top preserved courses; it was the only wall

[52] The material culture related to abandonment was retrieved from the extensive soil deposits that filled the basement rooms, which lay above the preparation layer that had been laid out prior to the construction of the house.

in the house to display this inclusion. It is immediately north of Room B. It is the only room of the house with an east-west orientation,[53] the smallest in terms of dimensions, and the closest room looking onto the beaten earth street. The size characteristics are listed in Table 5, whereas the walls' characteristics can be found in Table 6. The excavation results of this room were published in 2019 (Marchiori 2019: 198–204).

Table 5 The dimensions of Room A.

Building	Position	Shape	Area	Perimeter	Sides	
House	northwest room	rectangular	9.202 m²	12.471 m	south	3.86 m
					west	2.37 m
					north	3.82 m
					east	2.42 m

Table 6 The list and characteristics of the walls enclosing Room A *(Marchiori 2019: 199, table 11.3)*.

Wall number	Position of the wall in relation to the structure	Type of material	Length	Width	Height
4047	north wall of Room A	mudbrick	8.75 m	1.80 m (max) 0.80 m (min)	1.70 m (temporary[54])
4048	west wall of Room A	mudbrick	3.80 m	0.90 m	1.80 m (temporary)
4049	south wall of Room A	mudbrick with fired brick inclusions	3.80 m	0.70 m	1.90 m (temporary)
4143	east wall of Room A	mudbrick	1.50 m	0.84 m (max)	1.40 m (temporary)

Wall number	Courses of bricks	Average mudbrick size	Brick bond	Brickwork course construction
4047	23 (temporary)	25 x 17 x 8 cm	header/stretcher (A3) (Spencer 1979: 138)	concave
4048	26 (temporary)	28 x 11 x 7 cm	header/stretcher (A3) (Spencer 1979: 138)	concave
4049	26 (temporary)	23 x 15 x 7 cm	header/stretcher (A3) (Spencer 1979: 138)	horizontal
4143	19 (temporary)	26 x 12 x 7 cm	header/stretcher (A3) (Spencer 1979: 138)	horizontal

The excavation revealed the internal façades of the room (Figure 64). The preserved height of the walls (see Table 6) strongly advocates that the existing remains are of a basement room. The

[53] The orientation of the rooms is discussed regarding their length.
[54] The term temporary is used in the wall lists and characteristics tables to refer to those walls whose lowest layers have not been reached by excavation, meaning that the full preserved height and number of courses is still unknown.

foundation courses of the walls were not reached. There were no traces of windows or entryways. The walls' profiles revealed concave mudbrick courses, at least in the perimetral walls, whereas the brick course of the internal walls appeared straight. Although painted plaster fragments were found extensively among the deposits, there were no remains of it on the walls aside from some whitish traces on some mudbricks. The wall foundations were not reached, and no floor surface was identified during the excavation.

Nonetheless, the uppermost layers yielded a scattered dispersal of 81 bronze coins; this distribution seems to be linked to the house's last recordable phase of use, related to the occupation of the ground floor instead of the basement, and was termed 'coin floor.' This pattern of coin loss was noted throughout the excavation unit; however, most of the coins were retrieved from the upper layers, particularly from within the house and the amphorae storage building. The coin distribution is discussed in *Section 4.2.4.2 – The 'coin floor'*.



Figure 64 Room A during excavation (June 2015).

The room's excavation exposed a pattern of homogeneous soil deposition consisting of extensive deposits filling the room. The finding of 281 painted plaster fragments indicated interior wall decoration. Based on the ceramic finds (see Appendix), the room's function was interpreted as that of storage related to a kitchen. It has been suggested that it could have been a retail shop, a *taberna* — considering the painted plaster fragments, the presence of coins, and the room's position looking onto

the street (Mondin 2019: 65–67)— possibly along the lines of the examples from Kom el-Dikka (4th-7th centuries CE), whose rooms opening onto street R4 were shops (McKenzie 2010: 218; Rodziewicz 1984: 332). With this in mind, the fragments of marble slabs[55] could represent a counter's remains rather than a floor. Marble counters are well-known from Pompeii *tabernae* (MacMahon 2005: 70), and it was not unusual that some were constituted of reused irregularly shaped fragments (MacMahon 2003: 80). The reuse of materials was a common practice at Pompeii during the Republican and Imperial periods and not solely in the Late Antiquity (Fant, Russell and Barker 2013: 201); such pragmatism related to the reuse and recycling of readily available building materials coming from renovated or stripped buildings can easily fit within the Egyptian framework of the scarcity of materials or limited availability. The fired bricks lodged into the room's southern wall may also have been reused from other buildings (regarding the possible source of the fired bricks, see *Section 6.2 – To what extent did the environment and geography of the Delta play a part in the design of the house?*).

Room A was not re-opened the following field seasons as the efforts were focused on the other rooms and contexts outside the house. It was noted that the mudbrick walls reacted poorly to the sun's exposure; Room A's southern wall (F4049) suffered partial damage from one season to the other, resulting in the dislodging of the fired bricks that had been used on the latest preserved courses of the southern wall.

3.3.3 – House Room B

3.3.3.1 – The Late Roman Room B

Room B was the second room of the house that was investigated. It is in the southwestern part of the house. It also has a rectangular shape, but it has a north-south orientation, contrary to Room A. The internal walls F4049 (to the north) and F4061 (to the east) and the perimetral walls F4050 and F4060 delimit the room. It lies immediately south of Room A; the two rooms are divided by wall F4049, the only wall of the house that presented inclusions of fired bricks within its uppermost preserved courses. The room's dimensions and the walls' characteristics are listed in Table 7 and Table *8*. The excavation results of this room were published in 2019 (Marchiori 2019: 204–214).

[55] KAO 119, b568, b598, b604, b632, and b602.

Table 7 Dimensions of the Late Roman house's Room B.

Building	Position	Shape	Area	Perimeter	Sides	
House	southwest room	rectangular	16.358 m²	16.13	south	3.41 m
					west	4.63 m
					north	3.41 m
					east	4.68 m

Table 8 The list and characteristics of the walls enclosing Room B *(Marchiori 2019: 204, table 11.5)*.

Wall number	Position of the wall in relation to the structure	Type of material	Length	Width	Height
4061	east wall of Room B	mudbrick	4.90 m	0.70 m	2.20 m (temporary)
4060	south wall of Room B	mudbrick	3.20 m	0.80 m	0.20 m (temporary)
4049	north wall of Room B	mudbrick	3.80 m	0.55 m	1.90 m (temporary)
4050	west wall of Room B	mudbrick with fired brick lining F4050 SL001	5.80 m	0.80 m	0.18 m (temporary)

Wall number	Courses of bricks	Average mudbrick size	Brick bond	Brickwork course construction
4061	33 (temporary)	27 x 17 x 8 cm	header/stretcher (A3) (Spencer 1979: 138)	horizontal
4060	3 (temporary)	29 x 15 x 7 cm	header/stretcher (A3) (Spencer 1979: 138)	/
4049	26 (temporary)	23 x 15 x 7 cm	header/stretcher (A3) (Spencer 1979: 138)	horizontal
4050	3 (temporary)	26 x 11 x 8 cm	header/stretcher (A3) (Spencer 1979: 138)	/

The investigation thus focussed within the limits of Room B. The identified features were like the deposits recorded within Room A in that they mostly were extensive soil deposits that occupied most of the area of the room. The excavation of Room B went deeper than that of Room A, and it reached the beaten earth walking surface of the room (F4074); the excavation of Room C provided the same evidence, a beaten earth walking surface (F4229) at a similar elevation.[56] Both beaten earth surfaces were eventually understood to be part of a levelling related to the preparation of the area for the construction of the house, but they may also have served as floors for the basement rooms. Following Room C's excavation, it was possible to ascertain which of the layers were related to the occupational phase of the house and which to the earlier phases. Therefore, the rooms' features are considered in two groups: the Late Roman house's use/abandonment layers and the earlier phase, which is unrelated to the house.

[56] The lowest level reached in Room A was 4.576 m ASL; the average level of floor F4074 in Room B was 4.410 m AS; the average level of floor F4229 in Room C was 4.389 m ASL.



Figure 65 Room B during excavation (April 2016). The beaten earth surface (F4074) is visible with fired bricks over it.

The material culture revealed a low number of tools and objects of personal use (such as pestles,[57] bone hairpins,[58] and an amulet,[59] one of the very few objects related to personal religious beliefs retrieved from the area of the house). Like Room A, even Room B exhibited a dispersal of bronze coins, the most peculiar category of finds in terms of quantity; 164 bronze coins were collected from the upper layers. Since the only possible walking surface within the room was identified c. 1.25 m below the level of the coin dispersal, it has been inferred that the coins could represent the remains of a 'coin floor' also in this room (see *Section 4.2.4.2 – The 'coin floor'*). Furthermore, a fired brick skirting (F4050 SL001) ran along the inner side of wall F4050 (the western wall) at a similar elevation to the coins. This type of skirting was identified solely for this wall. More fired bricks of wall F4049 were uncovered; however, these were lodged into the wall's uppermost courses, whereas the skirting had not been inserted in the wall.

The finds from this room also included painted plaster (182 fragments), though less than in Room A; however, the quantity of Egyptian utilitarian ware —cooking ware and a considerable amount of tableware— increased compared to Egyptian and imported amphorae (Mondin 2019: 64) (see Appendix to Chapters 3 and 4). Given the room's position towards the rear of the house, it has been

[57] b450 and b532.
[58] KAO 7, KAO 8, KAO 19.
[59] KAO 39.

advanced that it could have had a more private function compared to that of Room A; however, the abundant presence of coins may denote that commercial activities, possibly transactions, could be carried out.

In terms of excavation logistics, it was decided to avoid uncovering the room's northern, western, and southern walls. The northern wall had undergone some damage from the previous season, and it was deemed prudent to keep it covered; the western wall was not uncovered following a decision of the project's management, whereas the southern wall was left partially covered to leave in place artificial steps that allowed access inside the room. Only the eastern wall's profile could be documented; however, due to a partial collapse during the excavation period, it was deemed prudent not to expose it fully (Marchiori 2019: 206–7).

3.3.3.2 – The context below Room B

The evidence provided by the walking surface F4074 and the above deposits suggests abandonment or a period of disuse, as the evidence from Room A shows. The investigation of Room B was continued below the level of the beaten earth surface F4074, which provided a window into the use of the area before the construction of the house (the same was undertaken during the excavation of Room C, see *Section 3.3.4.2 – The context below Room* C).

No architectural features were uncovered. The deposits mostly extended homogeneously within the boundaries set by the room's walls. The deposits ranged from being clayey and thick to silty and filled with debris inclusions, such as fired bricks, fragmented fired bricks, and what seemed to be pulverised and fragmented slag. The particularities of the latter features (F4085, F4086, and F4088) led one to consider whether they had any possible relation with the construction of the house and if they may have been purposefully laid, perhaps to create strata of preparation as part of the construction technique. Nevertheless, the excavation of the adjacent Room C disproved this preliminary consideration as these, or similar, layers were not uncovered. Therefore, the layers below Room B seem to constitute collapse or accumulated debris. No similar layers were uncovered elsewhere in the excavation unit.

Regarding the dating evidence for this context, the pottery remains are still in the course of study; however, the sherds' analysis has so far shown that the layers yielded pottery dating to the 3rd and 4th centuries CE (C. Mondin 2020, personal communication, 28 March). The data provided by the pottery contrasts slightly with the evidence provided by the coins, which mostly dated to the 2nd and 3rd centuries CE (Asolati and Crisafulli 2019: 12).

3.3.4 – House Room C

3.3.4.1 – The Late Roman Room C

Room C is the Late Roman house's third room. It occupies the southeastern part of the house's plan. Like Room B, its orientation is north-south, and its dimensions are slightly smaller than those of Room B (about one m^2). It is delimited by the perimeter walls F4031 and F4032 on its southern and eastern sides, respectively; its western side is delimited by the internal wall F061, whereas wall F4036 encloses it on the northern side. The room's dimensions and the walls' characteristics are listed in Table 9 and Table 10.

Table 9 Dimensions of the Late Roman house's Room C.

Building	Position	Shape	Area	Perimeter	Sides	
House	southeast room	rectangular	15.850 m²	16.06 m	south	3.43 m
					west	4.51 m
					north	3.57 m
					east	4.55 m

Table 10 The list and characteristics of the walls enclosing Room C.

Wall number	Position of the wall in relation to the structure	Type of material	Length	Width	Height
4061	west wall of Room C	mudbrick	4.90 m	0.70 m	2.20 m (temporary)
4031	south wall of Room C	mudbrick	5.01 m	1.15 m	2.92 m
4036	north wall of Room C	mudbrick	4.63 m	1.60 m	1.90 m (temporary)
4032	east wall of Room C	mudbrick	9.73 m	0.80 m	2.87 m

Wall number	Courses of bricks	Average mudbrick size	Brick bond	Brickwork course construction
4061	33 (temporary)	27 x 17 x 8 cm	header/stretcher (A3) (Spencer 1979: 138)	horizontal
4031	40	28 x13x 7 cm	header/stretcher (A3) (Spencer 1979: 138)	concave
4036	30 (temporary)	28 x 14x 8 cm	header/stretcher (A3) (Spencer 1979: 138)	concave
4032	43	27 x 13 x 8 cm	header/stretcher (A3) (Spencer 1979: 138)	concave

Room C was the only room where one possible beaten earth floor (F4220) was encountered about 50 cm above the level of the levelling layer F4229; however, the excavation of the robbed foundation trench truncated it. Instead, layer F4229 was encountered at a similar elevation as F4074 in

Room B.[60] The investigation of this room allowed us to expose part of the house's foundation trench (F4243) on the eastern side of the room. Since the trench cut the layer F4229 and ran parallel to wall F4032, it was discerned that it had been part of the house's construction (discussed in *Section 4.2.2 – Foundation trench(es)*). Consequently, if the trench was associated with the wall's construction and cut F4229, it can be deduced that the beaten earth surface had been laid out before the room's construction, supposedly as a levelling layer. The latter interpretation is supported by the fact that immediately below F4229 lay the remains of mudbrick walls of a room of an earlier building (the Roman Room). The top preserved courses of the earlier walls could be noted even before removing F4229 (see Figure 48).



Figure 66 Room C during excavation (October 2018). The possible beaten earth floor F4220 is truncated by the digging of the robbed foundation trench.

The existence of the foundation trench (F4243) is suggestive that Room C was a basement room, especially when comparing its elevations with those of the street that ran between the Late Roman house and the amphorae storage. Considerably fewer coins (11) were retrieved from Room C than from rooms A and B. The paucity of coins may be related to the use of this specific part of the house, and we may still consider the 'coin floor' in this room. The depth of the foundation trench and the height of the remains of the walls indicate the possible existence of an upper storey (see *Section 4.2.3 – Walls*); the

[60] F4074 had an average elevation of 4.389 m ASL while F4229 had an average elevation of 4.410 m ASL.

width of the walls can also be used to approach such an inquiry (see *Section 4.2.3.1 – Width of the wall remains*).

The use of Room C has not yet been determined as the material culture is still under study; however, the highest quantity of painted plaster (975 fragments), fewer coin finds, and the finding of more objects in general (see Figure 156) can suggest that it could have possibly been reserved for use by members of the household. The analysis of the pottery remains may shed more light on the room's usage.

3.3.4.2 – The context below Room C

As was the case for Room B, the features detected below the levelling layer F4229 of Room C were earlier than the construction and use of the Late Roman house. Contrary to the context below Room B, architectural remains were encountered. The earlier levels can be subdivided into two contexts: inside and outside the remains of a room of a separate building of Roman date. Solely the northeastern part of this earlier room was investigated as the excavation was limited to Room C's extension. The two walls, F4233 and F4245, constituted the northern and western boundaries of the Roman room. The southern wall's possible remains, termed F4316, were identified under wall F4031; the limited space did not allow more than the inner façade to be uncovered, which exhibited larger mudbricks than wall F4031. The room had a length of 4.10 meters, whereas the width is still unknown as it extended towards the east; the measurable width was of maximum 1.05 m. The remains of the Roman room were damaged by the foundation trench F4243, which cut through most layers. A modern looting episode impacted wall F4233 sometime between November 2018 and April 2019. The room's dimensions and the walls' characteristics are listed in Table 11.

Table 11 The list and characteristics of the walls enclosing the Roman Room.

Wall number	**Position of the wall in relation to the structure**	**Type of material**	**Length**	**Width**	**Height**
4233	west wall	mudbrick	4.75 m (temporary)	1.05 m	1.75 m (temporary)
4245	north wall	mudbrick	1.95 m (temporary)	0.70 m (temporary)	1.70 m (temporary)
4316	south wall	mudbrick	0.60 m (temporary)	/	0.35 m (temporary)
Wall number	**Courses of bricks**	**Average mudbrick size**	**Brick bond**		**Brickwork course construction**
4233	21 (temporary)	35 x 15 x 10 cm	header/stretcher (A3) (Spencer 1979: 138)		horizontal
4245	20 (temporary)	32 x 16 x 9 cm	header/stretcher (A3) (Spencer 1979: 138)		horizontal
4316	5 (temporary)	35 x 15 x 10 cm	header/stretcher (A3) (Spencer 1979: 138)		horizontal

A preliminary overview of this context's excavation has been presented by Asolati *et al.* (2020). The room was called the 'Roman room' due to the finding of fine ceramics dating to the early imperial Roman era (back to the 1st century CE) (Asolati et al. 2020: 38–39). As the ceramics are currently under study, a more precise date cannot be supplied yet. The four bronze coins retrieved from within and outside the Roman Room did not provide congruent dating evidence except for an Antoninus Pius coin dating to 157-158 CE (b2354).[61]

The Roman Room presented different utilisations. The earliest was characterised by the finding of fine, thin-walled ware and marble floor remains, of which fragments of slabs were found in situ (Asolati et al. 2020: 39). The following use of the room was more functional as it was distinguished by the six earthen pits filled with the upper part of six amphorae (AE3 Spindle-shaped) placed right-side-up and the eventual implementation of a mud oven in the northwestern corner of the room (Figure 67). The oven's remains were constituted by the remains of an unlined hearth (F4248) positioned between two parallel mud lines, whose southern end had been possibly sealed with two mudbricks. The excavation of the hearth retrieved vegetal remains, possibly hay, various animal bones, and a large piece of slag. The mud oven's presence suggests usage of domestic nature related to food preparation. The purpose of the pits with the amphorae is enigmatic: it is unlikely that they had been intended for storage as the ruptured vessels would have defeated the purpose of conserving contents; additionally, there was no separation between the base of the pits and the amphorae, meaning that what would have been

[61] b2564 and b2612 dated back to the 3rd-2nd centuries BCE, whereas b2590 could either date back to 3rd-1st centuries BCE or the 3rd century CE.

inserted would have come in contact with the ground. The rims of the amphorae were too high up from the ground to have some drainage purpose. All pits had been filled with soil, possibly to stabilise the amphorae remains. The fills within the amphorae did not yield finds or noticeable inclusions. If the amphorae were intended to contain something, it would have been objects or materials long and thin enough to fit the rims;[62] however, because of the presence of hay/straw remains in the deposits over the pits (similar to those of the deposits in the Third Building, see *Section 3.3.9 – The Third Building*) they could have been used in relation to animal rearing, possibly as feeders. These interpretations are preliminary as the material culture is still under study, and the room was only partially excavated. The rest of the context is still out of reach.

[62] The diameter of the amphorae rims' varied from 9.8 to 10.6 cm.



Figure 67 The Roman Room with the Spindle-shaped amphorae remains in pits and fragments of marble slabs.

The area west of the Roman Room presented a context outside the room. The stratigraphy attested that the area was used more for stochastic purposes. No walking surface was detected, the soil layers were thick, and several shallow pits (both of small and elongated dimensions) were detected. Compared to the Roman Room and the Late Roman Room C, most deposits of this outside context yielded a lower quantity of finds.

3.3.5 – Southern addition

The house's southern façade presented some architectural additions, namely four small spaces and a possible mastaba (Figure 68). The small rooms' walls had smaller dimensions than those of the house (and the eastern addition), which suggested that they were added at a later phase than the house's original construction and possibly had a temporary usage. The purpose of these small rooms seems to have been related to domestic activity. The small room's dimensions are listed in Table 12.

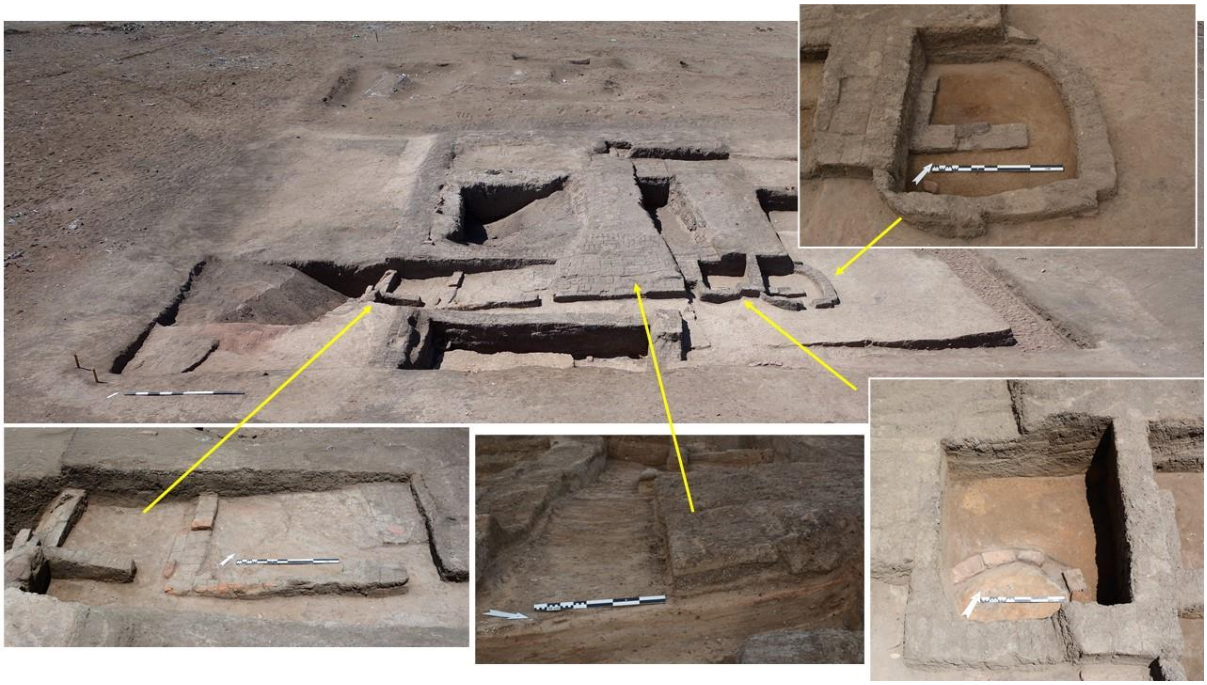


Figure 68 The southern addition: the small rooms H1 and H2 (lower left), the mastaba and its extension (lower centre), the storage bin H3 with the remains of an earlier hearth uncovered below it (lower right), and the oven H4 (upper right).

Table 12 List of small rooms of the southern addition.

Room	Type of room	Shape	Area m²	Perimeter
small room H1	southern addition (south of Room B, east of small room H2)	square	1.342 m²	4.64 m
small room H2	southern addition (south of Room B, west of small room H1)	rectangular	2.965 m²	7.05 m
storage bin H3	southern addition (south of Room C, west of oven H4)	rectangular	1.243 m²	4.42 m
oven H4	southern addition (south of Room C, east of small room H3)	pseudo-rectangular	1.989 m²	5.54 m

The small rooms were separated into two groups by the central protrusion of the house's southern façade. Small rooms H1 and H2 were located south of Room B, whereas storage bin H3 and

oven H4 were located south of Room C (Figure 69). H1 and H2 were structured similarly, with two small walls joining at a right angle and bordering them to the west and south. Storage bin H3 and oven H4 differed in shape —the former was rectangular and fully enclosed by small walls, while the latter was circular— and purpose. All small rooms' wall characteristics are listed in Table 13, Table 14, and Table 15.

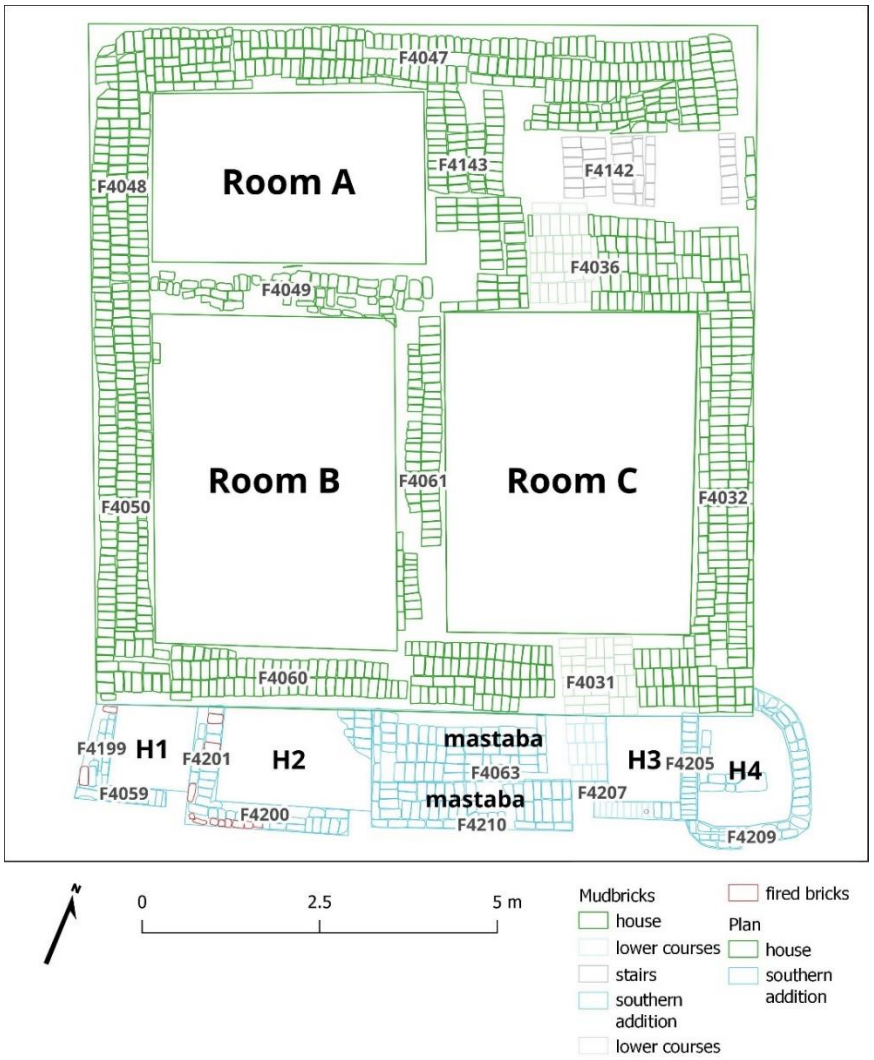


Figure 69 Plan of the house with the southern addition (main phase - subphase 3).

Table 13 The list and characteristics of the walls constituting the small rooms H1 and H2 of the southern addition.

Wall number	Position of the wall in relation to the structure	Type of material	Length	Width	Height
4059	south wall of small room H1	mudbrick	1.30 m	max. 0.24 m	22 cm
4199	west wall of small room H1	mudbrick and fired brick (1)	1.15 m	max. 0.40 m	15 cm
4200	south wall of small room H2	mudbrick and fired bricks	2.30 m	max. 40 cm	15 cm
4201	west wall of small room H2	mudbrick and fired bricks	1.45 m	max. 51 cm	12 cm
Wall	**Courses of bricks**	**Average mudbrick size**	**Brick bond**		**Brickwork course**

number				construction
4059	2	22 x 10.5 x 8 cm	header/stretcher (A3) (Spencer 1979: 138)	/
4199	2	29 x 10.5 x 8.5 cm	header/stretcher (A3) (Spencer 1979: 138)	/
4200	3	22 x 12 x 6 cm	header/stretcher (A3) (Spencer 1979: 138)	/
4201	2	25 x 12 x 8 cm	header/stretcher (A3) (Spencer 1979: 138)	/

Table 14 The list and characteristics of the walls constituting the storage bin H3 of the southern addition.

Wall number	Position of the wall in relation to the structure	Type of material	Length	Width	Height
4205	eastern wall of H3	mudbrick	1.50 m	max. 0.25 m	max. 0.45 m
4206	southern wall of H3	mudbrick	1.20 m	max. 0.25	max. 0.45 m
4207	western wall of H3	mudbrick	0.27 m	max. 0.25 m	max. 0.34 m

Wall number	Courses of bricks	Average mudbrick size	Brick bond	Brickwork course construction
4205	5	26 x 13 x 8.5 cm	header/stretcher (C1) (Spencer 1979: 138)	/
4206	5	26 x 13 x 7 cm	header/stretcher (C1) (Spencer 1979: 138)	/
4207	4	16 x 7 x 7 cm	header/stretcher (C1) (Spencer 1979: 138)	/

Table 15 The list and characteristics of the walls constituting the oven H4 of the southern addition.

Installation	Components	Type of material	Length	Width	Height	Courses of bricks	Average mudbrick size
4209	north-south running of H4	mudbrick	0.85 m	0.13 m	5 cm	1	24/26 x 13 x 5 cm
4209	east-west running of H4	mudbrick	0.95 m	0.25 m	5 cm	1	24/26 x 13 x 5 cm

The small rooms outside the house's southern façade were divided by a mudbrick mastaba or step (F4063), which was enlarged by an addition (F4210) that rendered it wider while maintaining the same length. This change seems to be related to the implementation of the southern addition. Given the amount of activity attested at the rear of the house, it is arguable that the rear space could have been accessed through a back door rather than having to be reached by walking around the house. In the latter case, the rectangular base constituted by F4063/F4210 could have served as a step or base for a stairway. The mastaba's characteristics are listed in Table 16.

Table 16 The list and characteristics of the southern addition's possible mastaba F4063/4210.

Wall number	Position of the wall in relation to the structure	Type of material	Length	Width	Height	Courses of bricks	Average mudbrick size	Brick bond	Brickwork course construction
4063	addition to the house's southern façade	mudbrick	3.30 m	max. 1.03 m	max. 0.33 m	4	24 x 13 x 7 cm	header/stretcher	horizontal
4210	addition to F4063	mudbrick	2.80 m	max. 0.68 m	max. 0.21 m	2	24 x 13 x 7 cm	header/stretcher	horizontal

The function of the additions to the east is more straightforward than that of those to the west. Parallels for storage bin H3 are some of the mud bins from Karanis (Boak and Peterson 1931: 31). Such bins could be either rectangular or circular-shaped and were used to store grain and fodder (Husselman 1979: 51–2, plates 80 and 81). The use of H4 was closely related to the remains of the hearth placed inside it; the presence of a possible draught hole was noted on the southern wall. The quasi-circular shape recalls mud ovens (Boozer 2015a: 100; Husselman 1979: plates 78 and 79), the L-shaped bricks delimiting the hearth are analogous to some documented in Karanis (Husselman 1979, plate 75a). It is similar to the type I bread ovens according to Depraetere's typology (2005: 465–66).

The state of the remains of small rooms H1 and H2 does not allow a clear understanding of how these small spaces were accessed and how high the walls had been. Both have small openings located towards their southeastern side; the openings were 30 and 33 cm wide, a width relatively small for human passage if we consider that a minimum of 75 cm is required, at least for modern standards.[63] It can be argued that the gaps in the southern walls of the small rooms marked small entryways, and the small rooms may have required sheltering. The gaps could have been shielded with any door or covering, such as wooden bars or grids constituted by intertwined reeds or branches (Correas-Amador 2013: 85–6); however, no traces were recorded. The presence of hearth remains (F4153) in H2 indicates domestic activity related to food preparation; the inclusion of the fired bricks in the construction of the walls of H2 may have been related to the presence of a nearby fire. There is less evidence of the use made of the small room H1. It could be inferred that it might have had a similar purpose to H2 or one related to the storage of certain materials and property that did not require to be kept inside the house. For instance, Room P of the House of the Frescoes, at Tipasa (Algeria), which had a similar shape as small room H1, albeit a bit larger dimensions, was used as a *magasins* (shop or warehouse) (Baradez 1961: 96). The house was in use during the 5th century when it was subdivided. Another option could

[63] The 1999 Part M Approved Document for the United Kingdom stated that an internal door should have a minimum width of 75 cm and an entrance door should have a minimum width of 80 cm (Goldsmith 2000: 41). The dimensions stated in the Approved Document M are intended to provide guidelines for access and facilities for disabled people, thus highlighting inclusiveness and equity. Entrance door dimensions in the Egyptian archaeological record indicate openings of 60 to 90 cm (Correas-Amador 2013, table 4.3).

have been that the animals used it. Archaeological and ethnographic studies show that the inner courtyards between houses or the rear area of houses, supposedly shielded from the main streets, were used for food processing and cooking as well as animal keeping (Correas-Amador 2013: 138; Davoli 1998: 47), two activities that are closely connected. The small room H1 might have provided a shelter space for the house's animals.[64] This interpretation is mainly deduced as there was no archaeological evidence to support the room's use, aside from being related to the activities carried out at the rear of the house. Similar small constructions detected in the courtyard of House 3 in Kellis (Dakhleh Oasis) have been interpreted as animal pens (Hope 2015: 221, 231).

3.3.6 – Eastern addition

The eastern addition abutted the eastern wall of the house. The rooms of the addition were named D, E, and F, following the naming system selected for the house's rooms. In hindsight, the naming of the addition's rooms should have been more carefully chosen if we consider that the eastern addition, like the southern one, seems not to have been conceived as part of the original construction plan but was added during the use of the house. The remains of this addition were barely preserved: only a few courses of mudbricks could be identified, and they had been impacted by the cut of the robbed foundation trench, which ran through rooms E and F (Figure 70). The size characteristics are listed in Table 17, whereas the walls' characteristics can be found in Table 18.

[64] Animals of small sizes, such as chickens, ducks, and geese can often be seen roaming freely within the modern, small, rural villages of the Delta; though the owners distinguish them by marking them or attaching strips of coloured fabric to the animals, the animals tend to stay within the immediate premises of the house and usually have free access to their indoor room.



Figure 70 The eastern addition: the walls delimiting Room D (upper and central left), the remains of the northern wall (F4027/F4030) (lower left), and the remains of the southern wall (F4134) (lower right). The robbed foundation trench cut the wall remains.

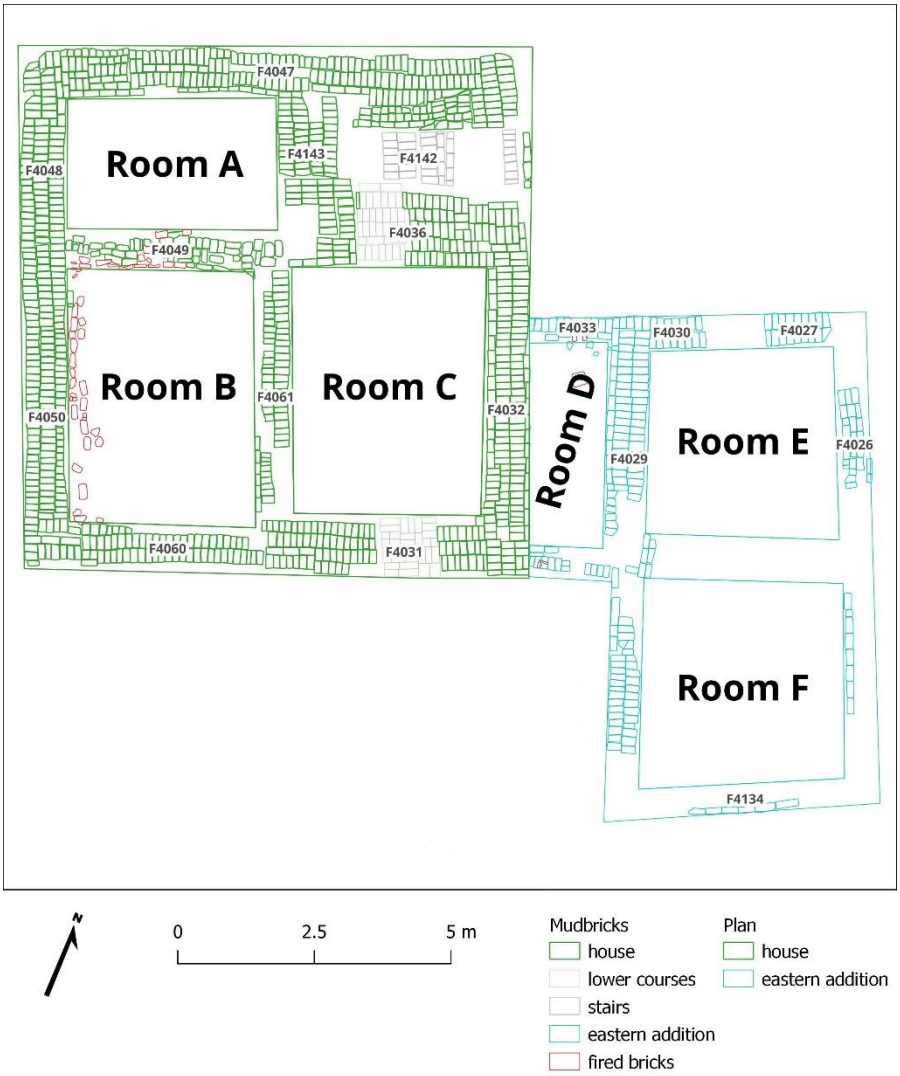


Figure 71 Plan of the house with the eastern addition (main phase - subphase 4).

Table 17 List of rooms of the eastern addition.

Building / Room	Position	Area	Perimeter	Shape	Sides	
Eastern Addition	/	51.162 m² (including walls)	30.861 m	square	/	/
Room D	northwest room	5.218 m²	10.27 m	rectangular	south	3.55 m
					west	3.34 m
					north	3.35 m
					east	3.54 m
Room E	northeast room	11.851 m²	13.78 m	square	south	1.35 m
					west	3.70 m
					north	1.44 m
					east	3.78 m
Room F	southeast room	13.792 m²	14.87 m	square	south	3.78 m
					west	3.87 m
					north	3.65 m
					east	3.57 m

Table 18 List of the walls of the rooms of the eastern addition.

Wall number	Position of the wall in relation to the structure	Type of material	Preserved length	Estimated length
4026	east wall of rooms E and F	mudbrick	5.95 m	9.00 m
4027	north-east wall of room E	mudbrick	1.20 m	1.85 m
4029	between room D and room E, west wall of room F	mudbrick	8.00 m	9.25 m
4030	north-west wall of room E	mudbrick	1.75 m	/
4033	north wall of room D	mudbrick	1.55 m	/
4134	south wall of room F	mudbrick	2.05 m	5.00 m
Wall number	**Preserved width**	**Estimated width**	**Preserved height**	**Courses of bricks**
4026	0.55 cm	/	max. 0.12 m	2
4027	0.60 m	/	max. 0.15 m	3
4029	0.70 m	/	max. 0.15 m	3
4030	0.60 m	/	max. 0.15 m	3
4033	0.45 m	/	max. 0.10 m	2
4134	0.11 m	0.55 m	max. 0.30 m	5
Wall number	**Average mudbrick size**	**Brick Bond**		**Brickwork course construction**
4026	24 x 15 x 7 cm	/		/
4027	26 x 15 x 6 cm	header/stretcher (A3) (Spencer 1979: 138)		/
4029	28 x 15 x 6 cm	header/stretcher (A3) (Spencer 1979: 138)		/
4030	26 x 15 x 6 cm	header/stretcher (A3) (Spencer 1979: 138)		/
4033	28 x 15 x 6 cm	header/stretcher (A3) (Spencer 1979: 138)		/
4134	27 x 11 x 7 cm	header/stretcher (A3) (Spencer 1979: 138)		concave

The state of the remains did not permit an understanding of the use that was being made of these spaces, particularly as the floor level was not preserved; however, the small size of the walls, the fact that they were laid directly on the ground without the aid of a foundation trench, and the fact that they abutted the walls of the house strongly argues for a structure that was not high, certainly not multi-storeyed. The ample space enclosed within the areas of the eastern addition could have been purposed for a variety of activities or necessities, from storage to workspace.

Room D presented considerably smaller dimensions than the other rooms of the house and the addition. Its northern wall bore the remains of an opening onto the street area. This opening was marked by the inclusion of two fired bricks, which could potentially indicate the release of liquids; in fact, the

outer surface (F4214) revealed a hollow space, possibly resulting from a runnel, that reached a nearby small pit. Nonetheless, no remains of hydraulic mortar were detected.



Figure 72 The remains of a hollow space within the surface F4214 north of the eastern additions' Room D. The two fired bricks through which the liquids could have been released are visible on the remains of the room's northern wall.

3.3.7 – The robbed foundation trench

3.3.7.1 – The trench

This rectangular trench (F4126) is located southeast of the house. After the house's demolition, the intention was to construct a new building for which a foundation trench was dug. This new trench cut through the eastern side of the house and the eastern addition, denoting again that the levelled walls of

the house were not used as a base for a new building. The trench more or less followed the general orientation of the buildings in the neighbourhood, implying a degree of continuity within the urban plan.

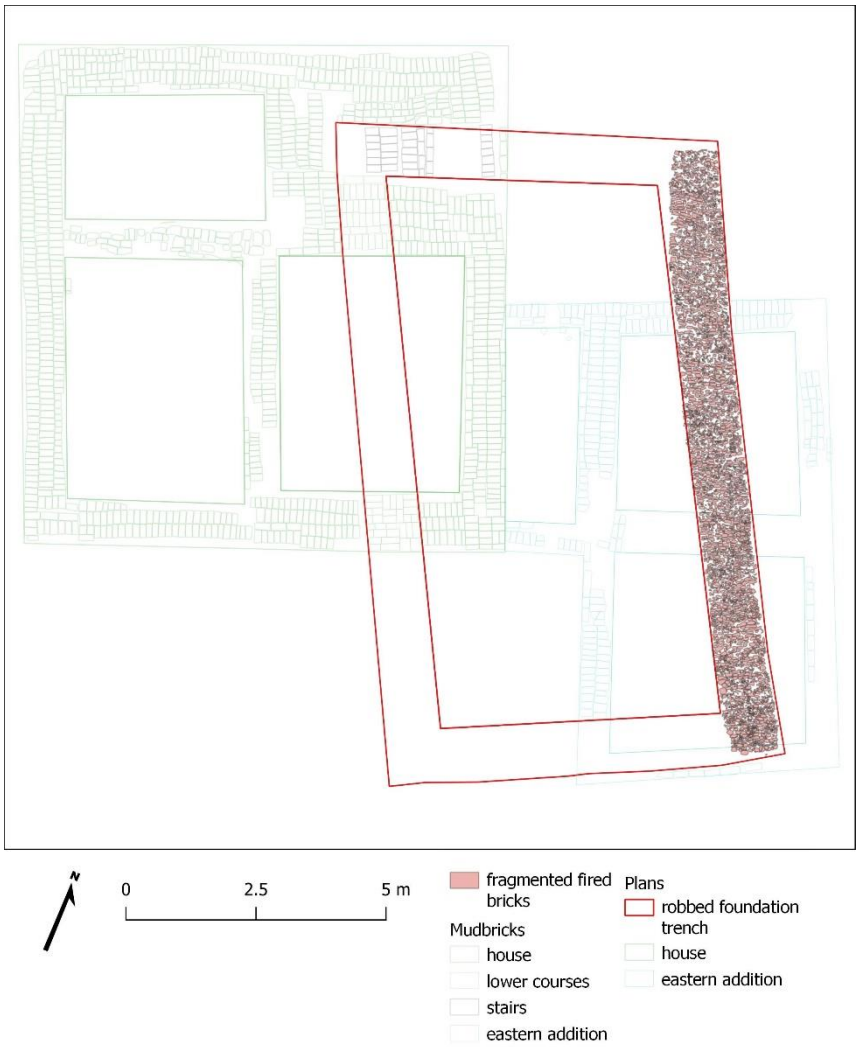


Figure 73 Plan of the robbed foundation trench with the fragmented ired brick packing (F4139) cutting through the eastern side of the house and the eastern addition (end phase).

Nonetheless, it demonstrated a different architectural choice from that observed in the house: concerning foundations, a packing layer was implemented in this case by including a layer constituted by fragmented fired bricks laid out in irregular rows (Figure 74, Figure 75, and Figure 76).[65] Applying a foundation layer in a different material than that used for the building —if we assume that the new building was planned to be constructed with mudbricks— is not unusual in Egyptian architecture and is seen in domestic buildings in contemporary and precedent periods. In this case, the use of fired bricks may thus be more related to a change of circumstances within a settlement where, as the excavations

[65] For parallels on this type of foundation, see *Section 4.3.4 – Comparing the finds from the house, the amphorae storage building, and the Roman room*.

have uncovered, the most common building material for domestic structures had been mudbricks, with fired bricks used sparingly. There could have been costlier materials available in terms of accessibility of resources, fuel and production facilities. This topic is further explored in *Section 4.2.2.4 – Comparing the building foundations of the house and the robbed foundation trench*.



Figure 74 The fragmented fired brick packing (4139) was detected within the eastern side of the robbed foundation trench (F4126).



Figure 75 Close-up of the fragmented fired brick packing (F4139) detected on the eastern side of the robbed foundation trench (F4126).



Figure 76 Profile view of the fired brick packing (F4139) inside the robbed foundation trench (F4126).

Ultimately, the new building was never built or finished as the foundation trench was robbed in antiquity. Therefore, what kind of building would have been constructed cannot be said, but it was of similar size as the other buildings uncovered so far in the Late Roman residential quarter and could have been intended for dwelling and/or small business.

The dimensions of the robbed foundation trench are listed in Table 19 and Table 20.

Table 19 The dimensions of the robbed foundation trench F4126.

Area (including what would have been occupied by the walls)	Inner area (excluding what would have been occupied by the walls)	Perimeter	Internal perimeter
91.715 m²	55.092 m²	36.64 m	31.50 m

Table 20 The dimensions of the four sides of the robbed foundation trench F4126.

Side of the trench	Length	Average width	Internal length
South Side	7.643 m	1.08 m	5.390 m
West Side	12.802 m	1.05 m	10.219 m
North Side	7.350 m	1.07 m	5.222 m
East Side	11.847m	1.10 m	10.669 m

3.3.7.2 – The 'corridor' aka the remains of the internal stairs

The robbed foundation trench cut through the eastern side of the house and critically impacted its northeastern corner. This part of the house had initially been considered to have been a possible corridor leading into Room A; however, it had probably been reserved for the staircase (F4142) (Figure 77). Stairs would have been necessary given the plausible existence of upper storeys, and there was no trace of an external staircase on the outside of the house. The possible remains of steps (details listed in Table 21) and mudbricks placed obliquely (Figure 78 and Figure 79) and forming semi-arches are reminiscent of vaulting associated with staircases (Spencer 1994: 317–18). The walls on this side of the house are also wider; this change could have depended on the need to support the staircase. Rectangular platforms within houses could have been bases for stairways (Davoli 1998: 165). The analysis of the staircase remains can be found in the Appendix to Chapter 4, Architectural Survey.



Figure 77 Plan of the northeastern corner of the house with the remains of the possible steps forming part of the staircase.

Table 21 Dimensions of the possible staircase (F4142).

Possible staircase steps	Length (W-SW/E-NE)	Width (S-SE/N-NW)	Height
all	130 cm	99 cm	45 cm
lower step	70 cm	90 cm	25 cm
higher step	60 cm	99 cm	45 cm



Figure 78 View of the northeastern corner of the house with the remains of the staircase (F4142).



Figure 79 Detail of the staircase remains (F4142) with the obliquely placed bricks that could form part of a semi-arch.

3.3.8 – The glass kilns

A group of three kilns constituted by different phases of use overlapping each over was located close to the house's southwestern corner. They were identified as kilns related to producing a specific type of goods rather than domestic ovens since they differed significantly from the hearths associated with the house's domestic cooking activity, both in terms of quantity of burnt residue and location. The hearths were either placed within restricted mudbrick enclosures or laid independently within the courtyard immediately south of the house. In contrast, the kilns had been clustered together, perhaps partly shielded by the remains of two nearby small walls (whose characteristics are listed in Table 22) that could have enclosed the activities undertaken there.

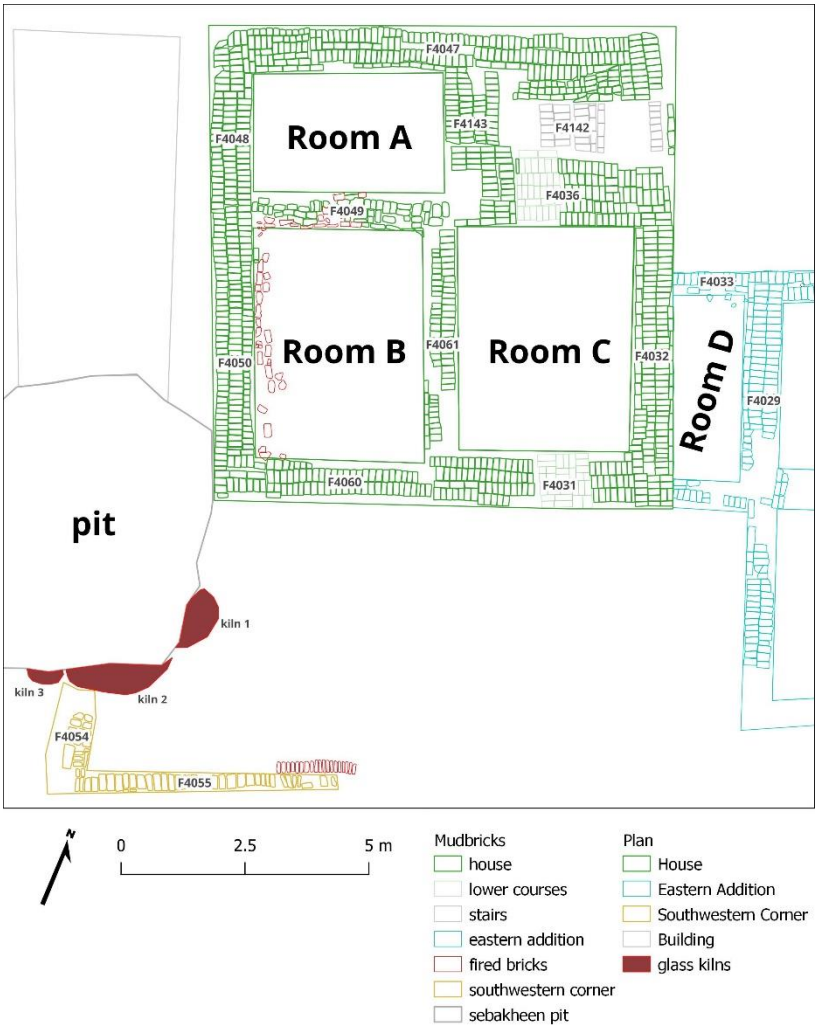


Figure 80 Plan of the house with the eastern addition and the location of the glass kilns southwest (main phase - subphase 4). They were truncated by the possible *sebakheen* pit (F4169).

Table 22 The list and characteristics of the walls in the area of the glass kilns.

Wall number	**Position of wall**	**Type of material**	**Length**	**Width**	**Height**
4054	west wall	mudbrick	2.10 m (temporary)	0.90 m	0.12 m (temporary)
4055	south wall	mudbrick (with inclusions of fired bricks)	5.30 m (temporary)	0.40 m (temporary)	0.15 m (temporary)
Wall number	**Courses of bricks**	**Average mudbrick size**	**Brick Bond**		**Brickwork course construction**
4054	2 (temporary)	24 x 16 x 6 cm	/		/
4055	2 (temporary)	26 x 13 x 6 cm	/		/

The overlapping phases of the kilns show that they were used over some time (Figure 81). Their observable dimensions do not indicate a level of industrialised activity but rather a domestic one, primarily due to the proximity to the house. Given the high quantity of glass remains found throughout the excavation unit (see the section on Glass in Appendix to Chapters 3 and 4),[66] glass could have been melted and worked with the kilns, highlighting that it was used and produced locally (Figure 82). Overall, glass was increasingly produced in the eastern Mediterranean by the Late Roman period and featured in all levels of society (Stern 1999: 481). In the case of these kilns, it is more likely that they had been used to recycle glass rather than function as primary workshops for its production. Glass kilns used for melting glass to be recycled would not have required large dimensions, nor the need to reach very high temperatures as the glass would have to be softened rather than smelted to be manipulated. Roman glass kilns were generally of small dimensions (Stern 1999: 454–55). The presence of glass slag in the unit's deposits attests that it was being worked; there is a plan to perform chemical analysis on some of the glass finds, which may shed light on the possible re-use of glass for manufacture.

[66] Glass remains are also noticeable on the ground surface of the western part of the site, as well as traces of burning that could indicate kilns similar to those found in Unit 4, though some of the burnings could be the result of modern fires.

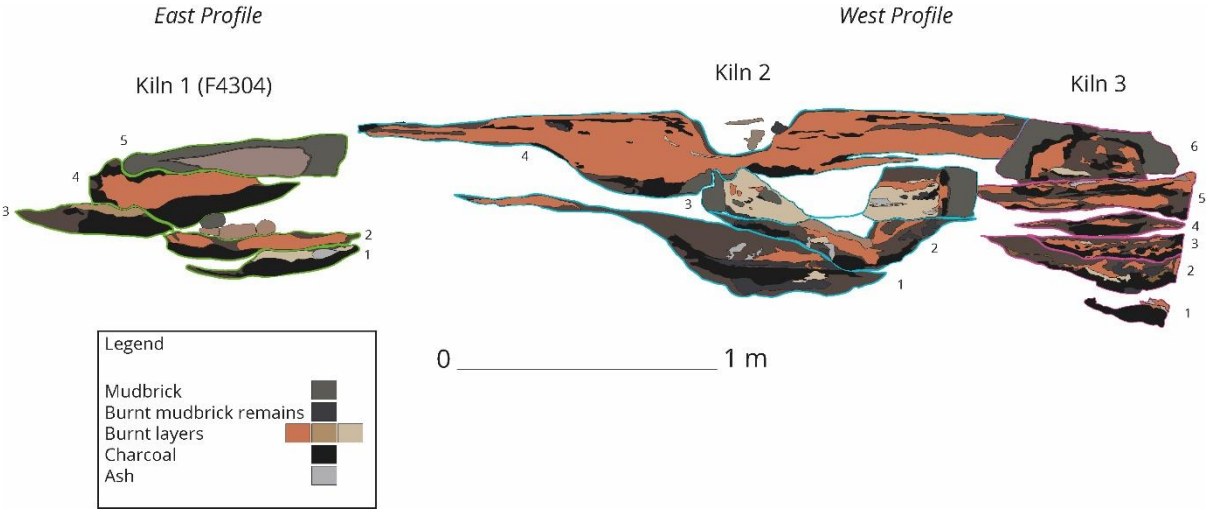


Figure 81 Profile drawing of the three kilns identified on the profile of cut F4169. The individual kilns are indicated with green, blue, and pink borders and their different phases are numbered.



Figure 82 Examples of glass objects retrieved from Unit 4: two, almost complete unguentaria and various glass bracelets.

The placement of a glass workshop in a domestic context would not have been uncommon. The Late Roman residential quarter of Kom el-Dikka at Alexandria was characterised by glass workshops within the domestic context, particularly in house B, where glass beads were manufactured between the 5th and 7th centuries CE (Rodziewicz 1984 pp.87, 128, 241–43). The glass kilns are further discussed in *Section 4.3.2.2 – Glass workshop*.

3.3.9 – The Third Building

This building lies south of the house; the space between the northern wall of this third structure and the southern wall of the house (F4060) was 2.20 m; it decreased to 70 and 80 cm when measured from the possible mastaba adjacent to the southern wall of the house. The building was only partially investigated as it extends beyond the excavation unit's limits; therefore, its full dimensions could not be discerned, and only part of one room has been excavated (Figure 83). The dimensions of the part of the building exposed and investigated are listed in Table 23 and Table 24. Overall, the room has the same orientation as the house and the amphorae storage, thus adhering to the urban layout of the Late Roman neighbourhood.

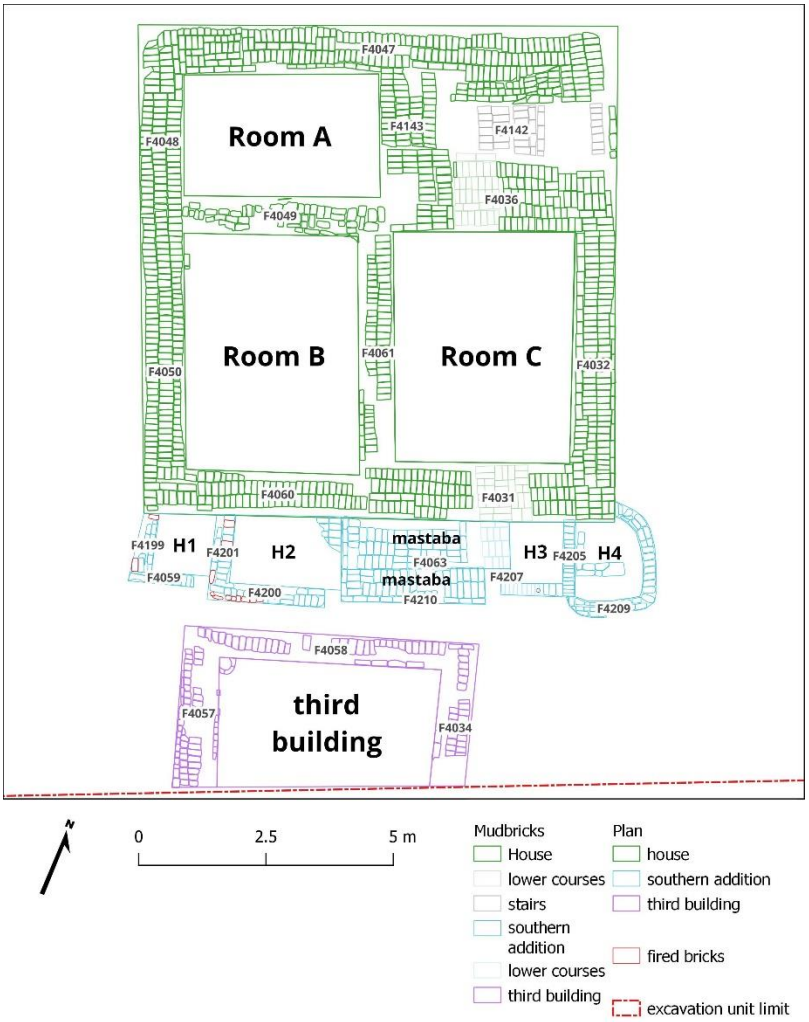


Figure 83 Plan of the house with the southern addition and the Third Building (main phase - subphase 3).

Table 23 Dimensions and area of the Late Roman house and its three rooms.

Building	Area	Perimeter	Shape
Third Building	17.19 m^2 (including the walls) (temporary)	11.76 m (temporary)	not yet discernible, possibly square or rectangular

Table 24 The list and characteristics of the walls enclosing the room of the Third Building.

Wall number	Position of the wall in relation to the structure	Type of material	Length	Width	Height
4034	east wall	mudbrick	2.80 m (temporary)	0.70 m	0.85 m (temporary)
4057	west wall	mudbrick	3.20 m (temporary)	0.70 m	0.85 m (temporary)
4058	north wall	mudbrick	5.80 m	0.50 m	0.75 m (temporary)
Wall number	**Courses of bricks**	**Average mudbrick size**	**Brick Bond**		**Brickwork course construction**
4034	12 (temporary)	25.5 x 12 x 8 cm	header/stretcher (A3) (Spencer 1979: 138)		straight
4057	11 (temporary)	25 x 12 x 8 cm	header/stretcher (A3) (Spencer 1979: 138)		straight
4058	11 (temporary)	25 x 13 x 8.5 cm	header/stretcher (A3) (Spencer 1979: 138)		partially concave

The past use of this room seems to have varied throughout its time of use; since the material culture does not point towards a specific use, it seems to have been dedicated to miscellaneous utilisations, among which animal penning (see Hope 2015: 218, 221, 226 for parallels of animal pens in Roman Kellis). The interpretation is based on finding several beaten earth layers within the room, which indicate that the room was used for activities that led to soil accumulation and that a rising floor surface was not deemed problematic (Figure 84). The beaten earth layers contained a high quantity of organic material, and hay/straw remains, suggestive of possible compacted dung remains, as well as the remains of a fixture installation (F4172) that was constituted by the remains of an LRA 4 amphora, with a circular hole at its base, inserted within a circular row of three mudbricks (Figure 85). This fixture's remains seem to have been intended to hold something, possibly a post of perishable material such as wood, to support temporary roofing. Presumably, the amphora was used to stop the post base from coming into contact with damp earth. Therefore, this building’s room had been open-air at a certain point. The fixture installation was not found in the opposite corner, aside from the remains of some pottery sherds (Figure 86).



Figure 84 View of the profile of the upper layers within the room of the Third Building. The beaten earth surfaces F4145 and F4158 are distinguishable in colour. The sloping from the side of the room towards the inside can be noted.



Figure 85 Remains of an LRA 4 amphora base inserted within a circular mudbrick installation to assemble a possible roofing fixture (F4142).



Figure 86 The room of the third building during the excavation (May 2018). The possible roofing fixture (F4142) is visible in the northwestern corner.

The remains of a possible mudbrick manger also advocate for the room's use as an animal pen, at least for a period. A similar interpretation was given to a small mastaba-like mudbrick structure at Karanis located on street BS 2 (Boak and Peterson 1931: 8). Modern parallels of this type of structure can be viewed in the rural contexts of the Egyptian villages (see Figure 87 and Figure 88). Historical photographs also provide similar examples, showing that some customs have been maintained (Figure 89).



Figure 87 Animal pen in the village of Qift, in the governorate of Qena muḥāfaẓah, in Upper Egypt (Personal photograph of Nunzia Larosa 2018).



Figure 88 Courtyard used as an animal pen in the village of Qift, in the governorate of Qena muḥāfaẓah, in Upper Egypt (Personal photograph of Nunzia Larosa 2018).



Figure 89 Photograph of an animal pen from Lexan near Asyut (1965). Elisofon noted in the index card 'columns made from dried corn stalks coated with dry mud' (Eliot Elisofon Field Collection, EEPA 1973-001, Eliot Elisofon Photographic Archives, National Museum of African Art, Smithsonian Institution).

3.3.10 – The street

The preliminary analysis of the street's excavation can be found in Marchiori 2019 (2019: 246–49). A beaten earth street (F4113) ran between the house and the amphorae storage building. The street runs for 20 m from the eastern to the western side of the excavation unit, but it extends beyond both limits: its overall length is unknown as it is not visible in the aerial photographs, whereas the width varies from 1.90 m to 2.20 m from east to west. Narrow streets were common, and often only the main ones would have been wide enough for people and animals to walk. Animals like the donkeys would have been widely used for transportation (Adams 2007: 57–8); regarding wheeled vehicles, such as wagons, their use seems to have been limited to large estates as they were expensive to manufacture (Adams 2007: 66). The street provides a physical link between the house and the amphorae storage building and testifies the use of the area in between the two buildings (Figure 90).

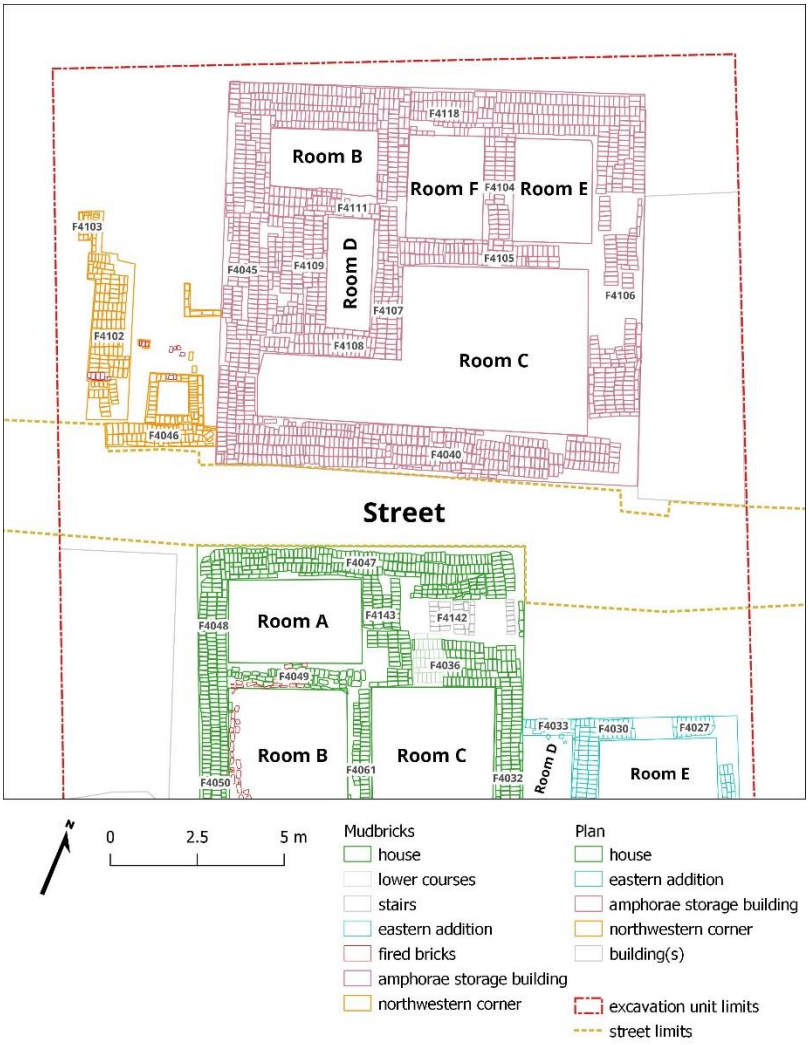


Figure 90 The plan of the house with the eastern addition and the amphorae storage building. The beaten earth street F4113 ran between them.

In some parts, especially the western part, the street had been impacted by some cuts, and some waste accumulation, possibly related to hearths, was noted north of the eastern addition. Fragments of building material —a thin layer of greyish cement laid over a semi-fired clay base— lay accumulated between the house and the storage building (Figure 91). The nature of these specimens of building material is unclear, but the fact that they were retrieved almost solely from a specific part of the street could imply that they had a function related to the position. They could represent the remains of an architectural feature, perhaps steps that could have been associated with the buildings' entrance and be used for access or threshold. The average elevation of the street's surface (5.52 m ASL) was higher than the beaten earth floors within Rooms B and C of the house. Nevertheless, the ground floor's elevation could have been higher than that of the street, thus requiring steps for access. Since streets tend to build up faster than rooms, there may have also been the need to step down into the house.



Figure 91 The beaten earth street (F4113) runs between the amphorae storage building (to the left) and the house (to the right).

3.3.11 – The amphorae storage building

The amphorae storage building constitutes part of the neighbourhood of the Late Roman house. It lies north of the house, separated from it by the beaten earth street (Figure 92). The amphorae storage building's excavation results and preliminary analysis can be found in Marchiori (2019: 217–41). The excavation report and study of the pottery retrieved from one of the rooms (C) and all the numismatic findings recovered between the 2014 and 2016 excavation campaigns can be found in Asolati, Crisafulli and Mondin 2019.

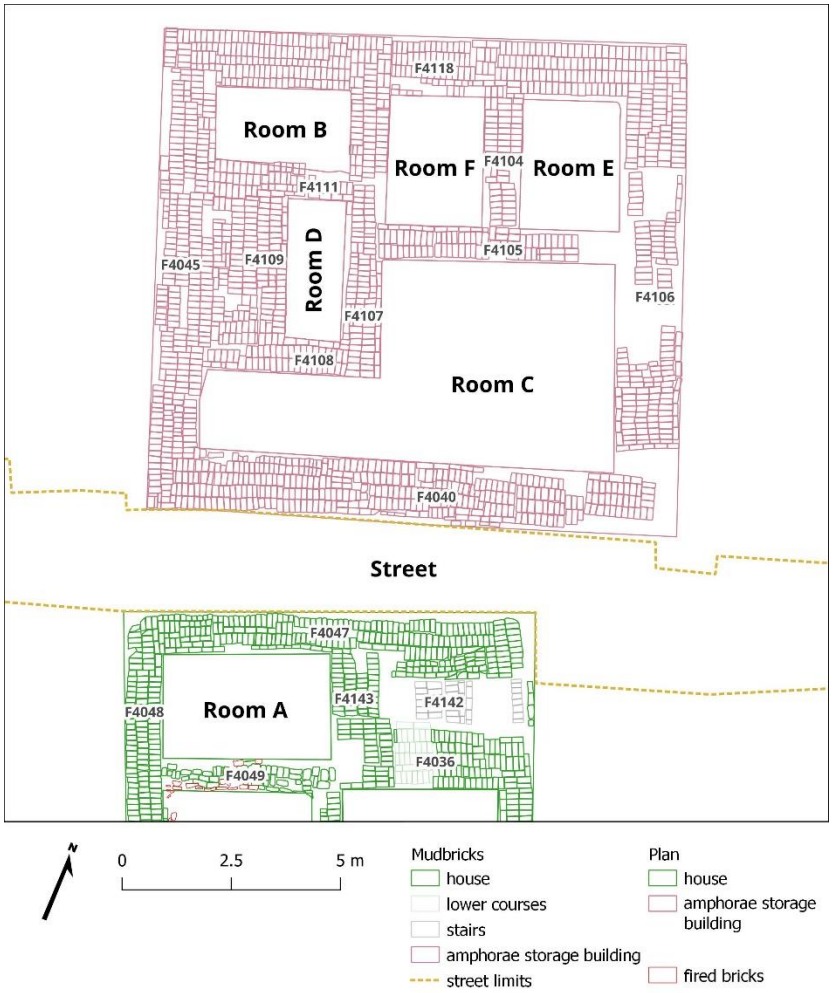


Figure 92 Plan of the house with the amphorae storage building and the street running between them.

The structure has a rectangular shape and is constituted of five rooms. The southern side measures 12.15 m, the western side 11.02 m, the northern side 11.96 m, and the eastern side 11.29 m. The excavation revealed a significant quantity of amphorae remains spread unevenly within the rooms; 232 amphorae, two jugs, one jar, and one cooking pot in situ were registered have been retrieved (in the excavation seasons between 2014 and 2019) (Figure 93) (Marchiori 2019: 224). The vessels mainly had been placed standing on their bases —though some were found in an upside-down position or on their body— leaning against the walls or each other; no lid remains were encountered (Mondin 2019: 68). The number of vessels, their position, and the fact that they were found empty of contents led to the interpretation that they were being stored for possible reuse of some sort, probably to store or transport other contents (Marchiori 2019: 257; Mondin 2019: 69), or to be sold (C. Mondin 2020, personal communication, 28 March).



Figure 93 The amphorae storage building (May 2017, photographer facing south) is indicated by the white contour. The amphorae found in situ in the three northern rooms are visible.

The amphorae storage building presents some architectural differences from the house: thicker walls, slightly larger mudbricks, and rooms of differing sizes. The perimeter walls' width varies between 1.00 m and a maximum of 1.60 m, whereas the non-bearing walls that separate the rooms have an average width between 0.80 m and 0.90 m. There were no inclusions of fired bricks within the walls, unlike in the case of the house. The building's size characteristics are listed in Table 25, whereas the walls' characteristics can be found in Table 26.

Table 25 Dimensions of the rooms of the amphorae storage building.

Building/ Room	**Shape**	**Area**
Amphorae storage building	square	134.385 m² (including the walls)
B	rectangular	5.514 m²
C	L-Shaped	32.654 m²
D	rectangular	4.182 m²
E	rectangular	6.707 m²
F	rectangular	6.512 m²

Table 26 The list and characteristics of the walls of the amphorae storage building.

Wall number	Position of the wall in relation to the structure	Type of material	Length	Width	Height
4040	south wall	mudbrick	12.10 m	1.40 m	0.40 m (temporary)
4045	west wall	mudbrick	10.95 m	1.00 m	0.60 m (temporary)
4104	north-south wall between Rooms E and F	mudbrick	3.00 m	0.90 m	0.40 m (temporary)
4105	east-west wall between Room C and Rooms E and F	mudbrick	5.50 m	0.80 m	0.50 m (temporary)
4106	east wall	mudbrick	11.25 m	1.60 m	0.40 m (temporary)
4107	north-south wall between Rooms B and F and Rooms C and D	mudbrick	7.80 m	0.90 m	0.50 m (temporary)
4108	east-west wall between Rooms C and D	mudbrick	4.00 m	0.80 m	0.35 m (temporary)
4109	west wall of Room D	mudbrick	3.40 m	0.90 m	0.59 m (temporary)
4111	east-west wall between Rooms B and D	mudbrick	1.30 m	0.85 m	0.30 m (temporary)
4118	north wall	mudbrick	11.95 m	1.30 m	0.35 m (temporary)

Wall number	Courses of bricks	Average mudbrick size	Brick bond	Brickwork course construction
4040	2 (temporary)	30 x 15 x 5 cm	header/stretcher (A3) (Spencer 1979: 138)	/
4045	13 (temporary)	26 x 14 x 5 cm	header/stretcher (A3) (Spencer 1979: 138)	concave
4104	5 (temporary)	35 x 17 x 10 cm	header/stretcher (A3) (Spencer 1979: 138)	/
4105	6 (temporary)	31 x 17 x 11 cm	header/stretcher (A3) (Spencer 1979: 138)	/
4106	4 (temporary)	32 x 13 x 10 cm	header/stretcher (A3) (Spencer 1979: 138)	/
4107	5 (temporary)	30 x 16 x 10 cm	header/stretcher (A3) (Spencer 1979: 138)	horizontal
4108	4 (temporary)	31 x 16 x 12 cm	header/stretcher (A3) (Spencer 1979: 138)	/
4109	5 (temporary)	32 x 15 x 10 cm	header/stretcher (A3) (Spencer 1979: 138)	/

4111	3 (temporary)	28 x 17 x 10 cm	header/stretcher (A3) (Spencer 1979: 138)	/
4118	5 (temporary)	29 x 14 x 7 cm	header/stretcher (A3) (Spencer 1979: 138)	/

The remains of the amphorae storage building are compared with those of the house in *Section 4.3.4 – Comparing the finds from the house, the amphorae storage building, and the Roman room*; however, it must be mentioned that the coin scatter distribution noted in the rooms of the house is also present in this building, with 203 coins cumulatively retrieved from the five rooms (in the excavation seasons between 2014 and 2019). The fact that the coin scatter was also noted in this building, a venue whose ground floor had been devoted to commercial activities, as testified by the high number of containers, emphasises the possibility that commercial exchanges and transactions could have taken place in the rooms A and B of the house. The coin distribution is analysed in *Section 4.2.4.2 – The 'coin floor'*.

3.3.12 – The northwestern corner

The area west of the amphorae storage building was termed the northwestern corner regarding its position within the limits of Unit 4. It was an open-air space enclosed by wall F4045 of the amphorae storage building to the east, wall F4046 and the beaten earth street to the south, wall F4102 to the west, and the unit's limits to the north. The preliminary analysis of the excavation of the northwestern corner of the excavation unit was published (see Marchiori 2019: 242–46). Both walls delimiting this space followed a similar orientation to the amphorae storage building; the southern one (F4046) abutted the amphorae storage building's western wall, thus indicating that it had been added to enclose a space that took advantage of the storage building's western wall for limit or shelter (Figure 94). The walls' characteristics can be found in Table 27.

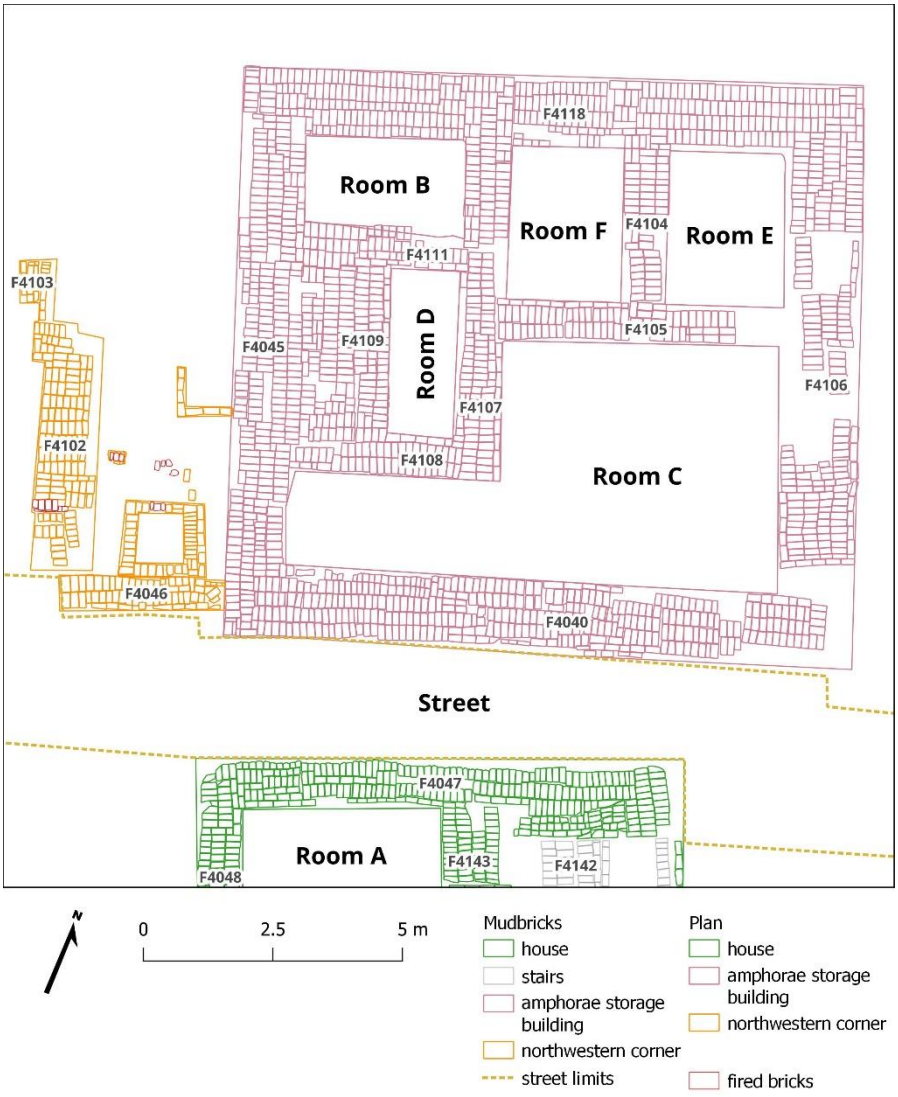


Figure 94 Plan of the house with the amphorae storage building and the structure of the northwestern corner (of the excavation unit).

Table 27 The list and characteristics of the walls of the northwestern corner.

Wall number	Position of the wall in relation to the structure	Type of material	Length	Width	Height
4045	west wall of amphorae storage building	mudbrick	10.95 m	1.00 m	0.60 m (temporary)
4046	south wall of NW corner of Unit 4	mudbrick	3.20 m	0.90 m	0.25 m (temporary)
4102	central wall of NW corner of Unit 4	mudbrick with fired brick inclusions	4.80 m	1.00 m	0.70 m (temporary)
4103	northwestem wall of NW corner of Unit 4	mudbrick	0.80 m (temporary)	0.20 m (temporary)	0.30 m (temporary)

Wall number	Courses of bricks	Average mudbrick size	Brick Bond	Brickwork course construction
4045	13 (temporary)	26 x 14 x 5 cm	header/stretcher (A3) (Spencer 1979: 138)	concave
4046	2 (temporary)	27 x 14 x 8 cm	/	/
4102	8 (temporary)	26 x 13 x 10 cm	/	/
4103	6 (temporary)	26 x 13 x 10 cm	header/stretcher (A3) (Spencer 1979: 138)	/

The investigations detected the remains of two small, enclosed spaces reminiscent of those of the southern addition of the Late Roman house: they were of square shape, of small dimensions, and delimited by mudbricks. One was delimited only on its southern and western sides and bore evidence for burnt deposits, indicating that it could have been used as a hearth. The other was fully enclosed and resembled a storage bin. The area seems to have been used for domestic activities related to cooking and storage; however, it is unclear if the activities undertaken in this open-air space were directly related to the amphorae storage building or possibly another building —perhaps to the west or north of this area— or if it was a shared space. The fact that the delimiting walls abutted those of the storage building can suggest that the area may have been reserved for use by its owners/occupants, but this remains a supposition for the time being.

3.3.13 – The 'hole' – the *sebakheen* pit

The southwestern corner of the excavation unit is characterised by a large pit that heavily affects the features to the south. It cut through some glass kilns and the walls of the small room H1 of the house's southern addition but did not compromise the integrity of the southwestern corner of the house, despite the extreme proximity. On the contrary, it truncated the remains of a building west of the house. That area was not subjected to in-depth excavation; therefore, not much is known yet about that building.

Within the excavation unit's limits, the pit has a semi-circular shape; it is roughly over 4 metres wide and 6.20 metres long. The surface of the area outside Unit 4 to the west was superficially cleaned

to trace the pit's limits. Contrary to the premises, it lost its semi-circular shape and extended west, then expanded towards the north. The shape visible in Figures Figure 95 and Figure 96 is temporary as it only shows the extent of the cleaned area. The pit's dimensions so far are 11.50 m and 6.70 m.



Figure 95 The continuation of pit F4169 outside the excavation unit following surface cleaning (the pit is indicated in green).



Figure 96 The continuation of pit F4169 outside the excavation unit following surface cleaning (the pit is indicated in green).

Due to its size and depth, this large pit (F4169) seems related to the *sebakheen* digging. It is about 45 metres west of the central part of the site where the *sebakheen* operated, implying that the *sebakheen* activities were also taking place in this part. The pit's southern and eastern profiles show a stratigraphy comprised of a succession of levelled, linear, into which the glass kilns had been dug on the top part (Figure 97). The lack of large architectural remains visible within the profiles of the pit is suggestive of the fact that the specific area below the glass kilns and by the southern side of the house could have been an open space for activities that would have led to the generation of the thin soil layers that constitute the stratigraphy visible in the profile of the pit.



Figure 97 The sondage excavated within pit F4169. The southern and eastern profiles denote the area's stratigraphy in contrast to the northern profile, which exhibits the stratigraphy of the fill of the pit.

3.4 – Conclusion

This chapter presented the contexts investigated by the excavation of Unit 4 at Kom al-Ahmer. The contexts formed part of the Late Roman sector of the settlement and denoted the co-existence of the domestic and commercial realms. The chapter aimed to answer the research question 'how much can we discern archaeologically about this house.' The humid environment of the Delta is not favourable for preserving the archaeological remains along with later human activities in the area (see *Section 2.2 – A wetland environment between the coast and the desert*): as such, the remains were preserved solely

up to the ground level, with most relating to the foundation levels. The tentative reconstructions of the house's development from construction to demolition can be utilised to examine whether it adheres to the existing knowledge on domestic contexts or provides instances of discrepancy that could offer new insights or a more nuanced view.

The investigation has shown that the understanding of the house has been dependent on the understanding of the surrounding contexts. The exploration of the neighbouring contexts and the nearby structures has nuanced the interpretation and allowed us to grasp the complexity of the occupation, highlighted by the subphases of the main phase of use. If the excavation had focussed exclusively on the rooms of the house, the interpretation would have missed critical information regarding the activities —domestic and non— undertaken by the inhabitants, the use they made of the courtyard and the extent to which it featured as part of the house. The excavation of the case study house demonstrated that the meticulous investigation of an individual building and the reconstruction of its phases of construction, development, and abandonment —a process known as archaeological building biography (Rogasch 2014)— allows for the comprehension of the building's history and can be applicable even in the case of a building with little preserved remains. This chapter has revealed how the building had been planned and evolved throughout time due to its inhabitants' necessities or preferences, thus showing that its architecture was not static. The strategy to investigate individual buildings in detail is time-consuming; however, the reproduction of more investigations of this sort in Egyptian archaeology would expand our current understanding of daily life at different socioeconomic levels and domestic architecture and the knowledge of settlements.

This chapter mainly focused on the architectural remains and their stratigraphic relationships. The contexts were found in a state of abandonment, which implies that the material culture recovered by the excavation is largely residual. Nevertheless, one has to work with the available evidence, which in this case consists of building foundations and discarded fragmented artefacts highlighting the fact that that there were several phases of activity, changes in intention, function and usage, 'generational' character of houses and eventual limitations on further expansion in the area of the town. Chapter 4 – Beyond the excavation: analysing architecture and usage assesses the building remains in detail and focuses on the material culture to explore further the use and function of these domestic contexts, their socioeconomic status, and the extent to which the commercial element is present.

Chapter 4 – Beyond the excavation: analysing architecture and usage

La verità, Fabié, è che non si sa mai cosa succede veramente nelle case degli altri.
Baronessa Elisabetta Focale in È stata la mano di Dio (2021)

4.1 – Introduction

Chapter 3 – The case study house illustrated the results of the archaeological investigation of Kom al-Ahmer's Late Roman house and its immediate surroundings and provided the interpretation of the archaeological and architectural remains, arranged into the main phase of use divided into subphases. With a grasp of the building's biography focusing on its construction, development, and abandonment, it is possible to analyse the archaeological remains further to determine the use that the inhabitants had made of the house. This chapter will be devoted to the architectural survey of the building remains and assessing the collected material culture, which will be contextualised within their chronological and environmental circumstances. This case study house offers an opportunity to evaluate how much insight into the social, cultural, and economic context can be attained from poorly preserved archaeological remains. The purpose is to expand on Chapter 3 – The case study house to answer the research questions driving this thesis about what could be inferred of the lifestyle of the inhabitants of a household in a settlement of the northwestern Nile Delta during the early 5th century CE Egypt. The architectural survey of the house will lead the discussion on whether the environmental conditions of the Delta influenced the construction and management of domestic architecture. At the same time, the assessment of the material culture remains will be used to elaborate on what can be inferred about the daily activities undertaken by the inhabitants.

By the 5th century CE, Egypt had long been integrated within the Roman empire and had undergone the management of the Ptolemies; consequently, cultural trends and influences had been imported on both occasions. In what measure can we perceive the Roman presence in a Delta settlement during the Late Roman period? Is it possible to detect cultural trends in terms of architecture and material culture which may have transferred to the identity of the Egyptian inhabitants? The study of the house provides a snapshot of daily life during Late Roman Egypt, permitting an individual view of the customary practices of the time within a non-elite residence. The investigation of a single house is limited because it cannot be representative of a whole community; however, it allows for the detailed analysis of the remains to obtain, as far as possible, a nuance of the overall picture, especially in a site not as extensively investigated as Kom al-Ahmer.

The archaeological interpretation of the case study house is assessed against other examples of Egyptian houses from the same and other periods to denote features maintained throughout time and

others more characteristic of the studied period. The identification of the Roman Room below the Late Roman house presented an opportunity to glimpse the development of the area in terms of urban planning and the architecture and use of domestic structures during two distinct periods. Though a small fraction of the Roman context was investigated compared to the Late Roman one, it still provides scope for a preliminary assessment. Late Roman house case studies from other regions of the Mediterranean that may or may not have had strong links with Egypt will be considered in Chapter 5 – An Egyptian house in a Mediterranean context by observing the extent to which they displayed evidence of Roman influence against local vernacular building customs.

4.2 – Architectural survey

4.2.1 – State of the remains

The sebakheen's excavations at the site seem to have also reached the area of the Late Roman house during the first half of the 1900s (el-Khashab 1949: 28), given the existence of the large pit brushing the house's southwestern corner (see *Section 3.3.13 – The 'hole' – the sebakheen pit*). Nevertheless, the systematic removal of archaeological stratigraphy to retrieve ancient mudbricks did not affect the remains of the house; the robbed foundation trench (see *Section 3.3.7 – The robbed foundation trench*) cutting through the house walls indicates that the house's superstructure had already been removed, possibly to level the area in preparation for a new building. Indeed, the excavation did not uncover any remains of collapses, roofing, or any datable artefact of periods later than the 5th century CE. As such, even if the *sebakheen*'s excavations might have extended further than the central part of the site, the remains of the house had already been partially removed in antiquity, barely leaving the ground floor level (Figure 98).

There were no building materials that could be associated with a possible roof neither in the Roman Room. Akin to the case study house, the upper part of the walls had been razed. The area was then levelled with the laying out of a layer (F4229) that served as a building horizon for the Late Roman house. The resemblances between the abandonment and demolishment of the Roman and Late Roman buildings denote a modus operandi when preparing the grounds for a new building at the settlement. *P. Med. 41*, dating back to the 5th century CE, mentioned a house in ruins in the Arsinoite *nome* that had to be levelled to the foundation levels (Husson 1983: 90); this adds to the evidence that the Late Roman house had been demolished to continue the occupation of the area, even though there are no later structures in the proximity (aside from the robbed foundation trench).

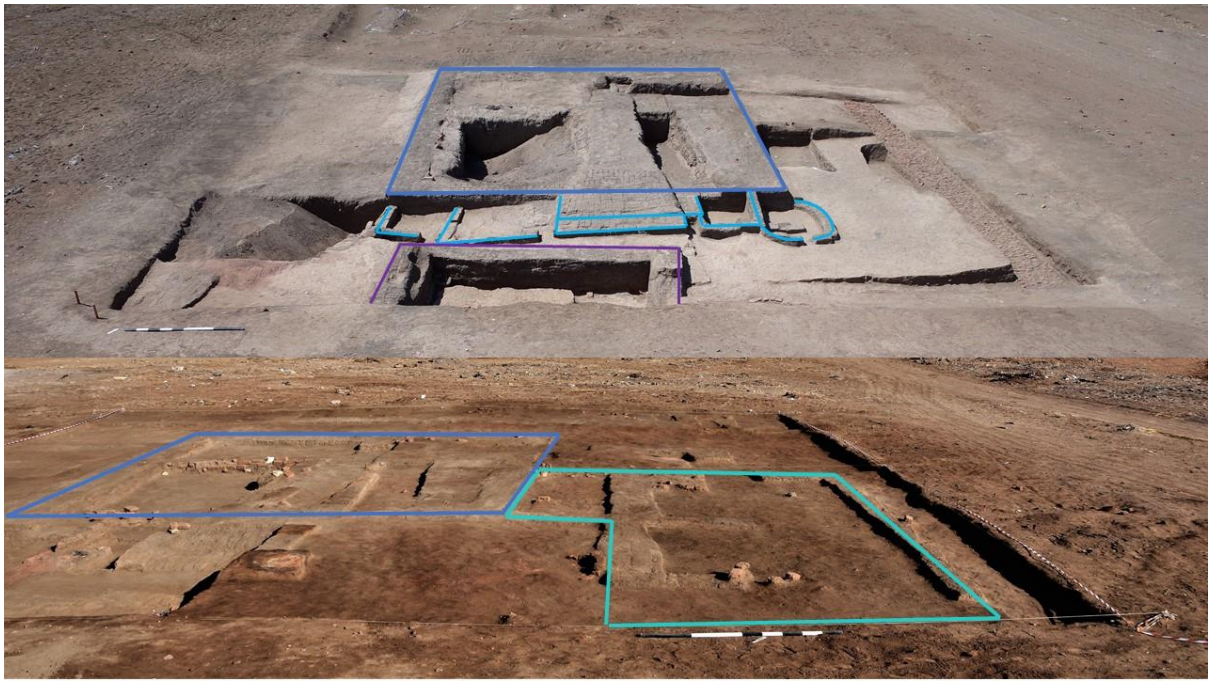


Figure 98 The remains of the Late Roman house of Kom al-Ahmer in 2014 (below) and 2018 (above). The house is bordered in dark blue, the southern addition in light blue, the third building in purple, and the eastern addition in aqua green.

The house's architectural remains comprised basement walls and beaten earth floors. The walls were built exclusively in mudbrick, with fired brick used in specific instances, possibly for consolidation or repair. The house's plan was square, divided into three rooms and a possible space reserved for the staircase. It falls into Depraetere's Type Ib square house category. Depraetere listed nine houses that followed this plan typology: TE 6300 at Tebtynis, SN Zucker 1 and SN I101/II223 at Soknopaiou Nesos, KA C3, KA C50/51, KA C71, KA C213, and KA C431 at Karanis, and TEH 1 at Tell el-Herr (Depraetere 2005: 58–61). Though Depraetere's examples were almost exclusively from the Fayum (except for the Sinai site Tell el-Herr), F. Arnold (2003b: 184–85) made a typological comparison between examples of Late Roman and Early Medieval house plans from Soknopaiou Nesos, Karanis, Djeme, Elephantine, and Philae, and squared, three-room plans were not uncommon: Arnold included house II 203 at Soknopaiou Nesos —though this plan included a corridor adjacent to the stairs— C 51 at Karanis, and 59 and 117 at Djeme (Figure 99). C 51 also existed in the Late Third Layer, according to the Karanis registry; however, it was used differently in that period as there was an additional room. In the Second Layer, it was used with three rooms. Davoli (1998: 355) also reported the plans of the Fayum houses to range between rectangular, square or semi-square, and articulated in an irregular design with numerous variables. Another parallel is House 5 at Syene, Aswan (Jaritz and Rodziewicz, 1994, p. 118 and figure 1). With the Late Roman house at Kom al-Ahmer, the square three-room plan seems to have been a typology used across the country (Figure 100).

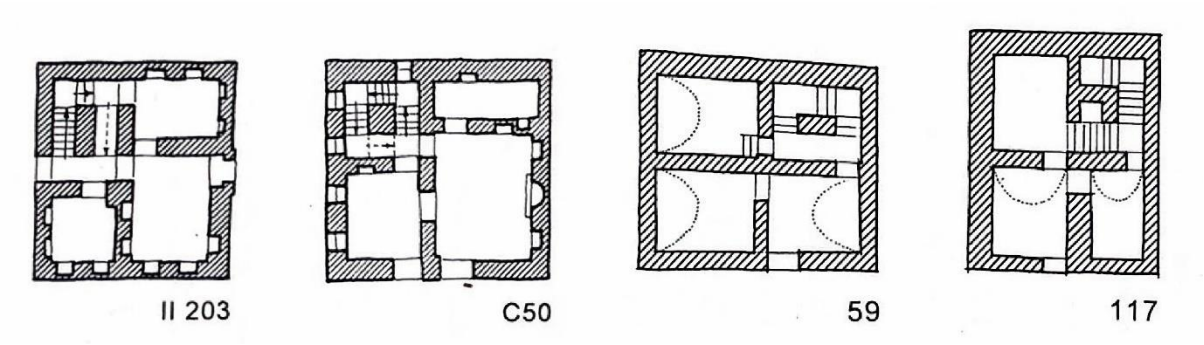


Figure 99 Plans of square-shaped houses with three rooms and a corner staircase (from left to right: house II 203 at Soknopaiou Nesos, house C50 from Karanis, and houses 59 and 117 from Djeme) (after Arnold 2003b: 184–85, figures 116 and 117).

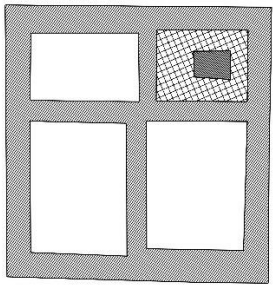


Figure 100 A simple plan of the Kom al-Ahmer Late Roman house showing the similarity with the plans in Figure 99.

4.2.2 – Foundation trench(es)

The architectural survey mainly focussed on the foundations as they were the surviving evidence for the house. The study of the foundations and foundation trenches was used to assess whether their characteristics had been affected by the Delta's environment. The elements here considered are the depth of the foundation trench, the presence or not of the trench's backfilled sides, and the use of a packing layer as a base for the walls filling the trenches. The foundation levels were reached solely for the house,[67] but the robbed foundation trench allows the opportunity to observe another kind of foundation that can be compared and contrasted with that of the house.

Husson's (1983: 88–90) analysis of papyrological evidence regarding houses of the Ptolemaic, Roman, and Late Roman periods included a review of foundations (Θεμέλια); the Greek terms related to the digging of ditches or the materials employed for their construction, either bricks or stone. Nevertheless, Husson noted that foundations were rarely mentioned in texts, let alone specifications on their construction methods, dimensions, and depth. Therefore, there is not much written information regarding the methodology and reasoning behind the construction of foundations.

[67] Though the amphorae storage building was also investigated, the excavation halted at the ground floor level and the foundation level was not reached.

4.2.2.1 – The Late Roman house's foundation trench

The excavation in the house's Room C was the only one that reached the level of the foundation trench and that of the lowest brick courses of walls F4032 and F4031.[68] One foundation trench associated with the house's walls was detected in Room C. The trench (F4243) ran parallel to the eastern wall (F4032) and had been cut into a beaten earth levelling layer (F4229) (see Figure 101); it had a top width that varied from 20 to 27 cm and a depth of 90 cm; however, the wall continued below the end base of the trench (three courses of mudbricks), which became progressively narrower and closer to the wall until it was no longer detectable. The length from the trench's supposed visible base to the base level of the lowest brick course of the wall varied from 27 to 32 cm; thus, the trench was roughly 120 cm deep. It was not lined with any material. The levelling layer did not exhibit other cuts aside from the trench.

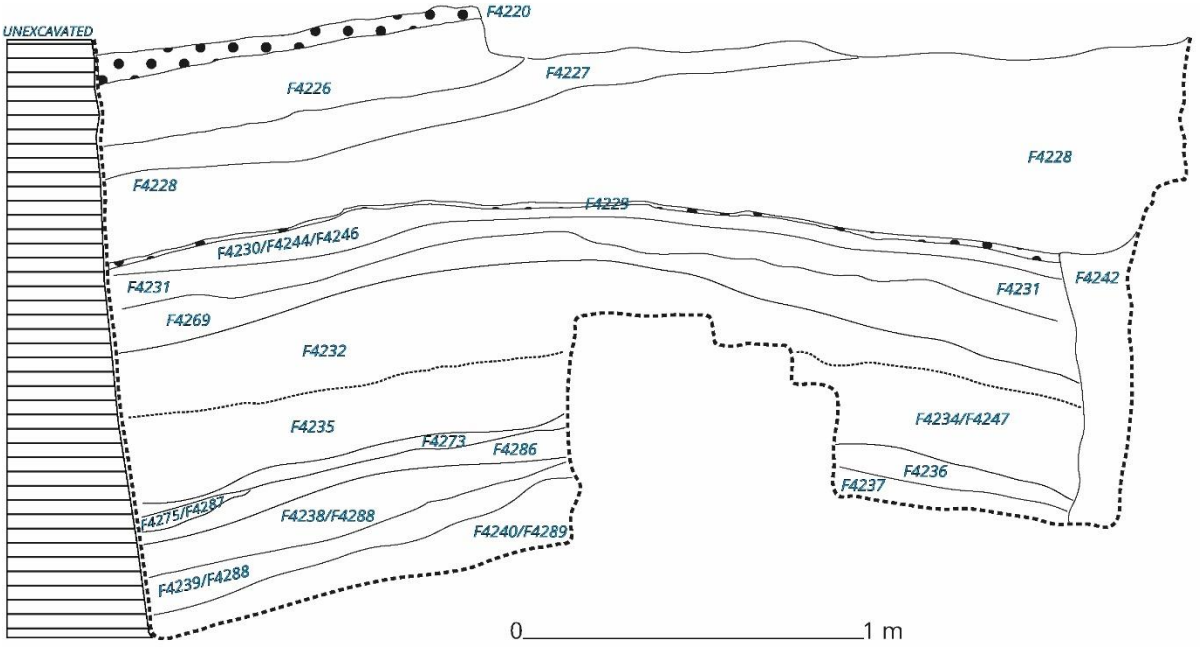


Figure 101 Stratigraphic profile of Room C, facing north. The layers indicated with dots are the possible working surfaces or preparation layers. The eastern wall of the room (F4032) would stand to the right of the drawing.

This trench would seem to be a strip foundation trench, which differs from a trench fill foundation because the latter is usually backfilled with material (nowadays concrete) up to almost the ground level (Thorpe 2021: 109); this allows the use of fewer bricks. The existence of gaps between the edge of the trench and bricks of the wall is not unusual, and they are usually the giveaways of foundation trenches in the archaeological record; earlier buildings at the nearby Kom Wasit provide

[68] The excavation of Room A had not reached a sufficient depth, whereas a series of 'baulks' had been left on the sides of Room B to permit in and out movement as well as protect some of the frailer walls. As such, the understanding of the foundations remains partial.

examples, both for domestic buildings (Herslund 2019b: 91–2, the house in question had a casemate foundation platform) and monumental ones (Müller and Kenawi 2019: 133–136). A similar example has been noted in the case of a casemate tower house in the Hellenistic sector at Kom al-Ahmer (Badalucco 2019, 2022: 15; Zorz and Bonanno 2019).

The possible reasons behind why the trench was not detected in the other rooms could be related to the excavation logistics,[69] but it could also imply variation when it came to digging and filling the trench and that in some cases, no gap had been left to be filled with soil (see Figure 102). The foundation trench of wall F4061, which divided Room B from Room C, was not detected on either side.[70] Nevertheless, it can be assumed that the internal walls had also been laid out into a foundation trench since the preparation layer into which the trench had been dug was detected in both Rooms B and C and the internal wall F4061 also descended below it.

It was hypothesised that the foundation trench may have been solely visible alongside perimeter walls, but it was not the case for Room C's southern wall (F4031); the internal stratigraphic profile confirmed its absence. Though the excavation outside the house did not reach the depth of the trench, the excavation of the possible sebakheen pit revealed part of the stratigraphy outside the house's southern side and no trench evidence was identified (see Figure 103). The existence of the trench and the depth of the house's walls led to the assumption that all the other walls would have required a foundation trench. Therefore, it would seem that the trench gap was left solely on specific sides (the eastern and possibly the western sides). Spencer (1996: 215) and Lehmann (2014: 59) reported cases of buildings at el-Ashmunein and Tell el-Dabʿa that had foundation trenches only for some walls, not for all. Boozer (2015a: 72) noted it too in the context of the Romano-Egyptian house B2 at Amheida. The robbed foundation trench demonstrated that the trench would have been present for the loadbearing walls and that, in certain instances, the bricks would not have been laid against the sides of the trench but would have left a gap. Using different foundation techniques on the same building might not have been too unusual.

[69] The investigation of Room A did not reach the level of the beaten earth levelling layer (F4074 and F4229), whereas Room B was not fully investigated as baulks were left in place on all sides of the room except the eastern side.
[70] Though it must be noted that a 20 cm baulk of soil had been left against the wall in Room C.

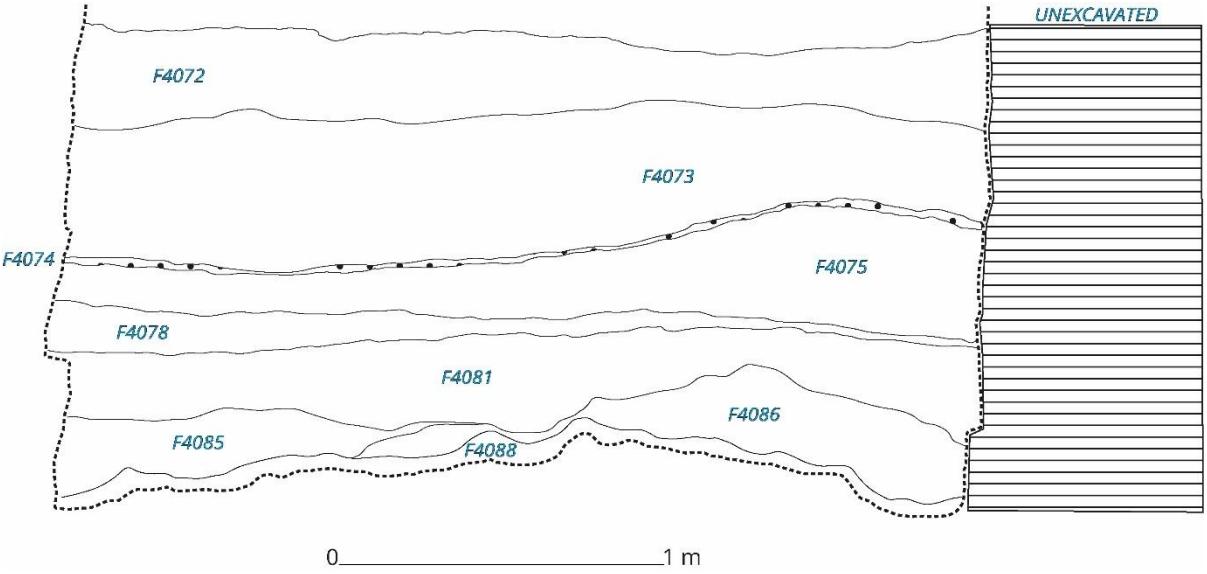


Figure 102 Stratigraphic profile of Room B, facing south. The layers indicated with dots are the possible working surfaces or preparation layers. The room's eastern wall (F4061) would stand to the left of the drawing.

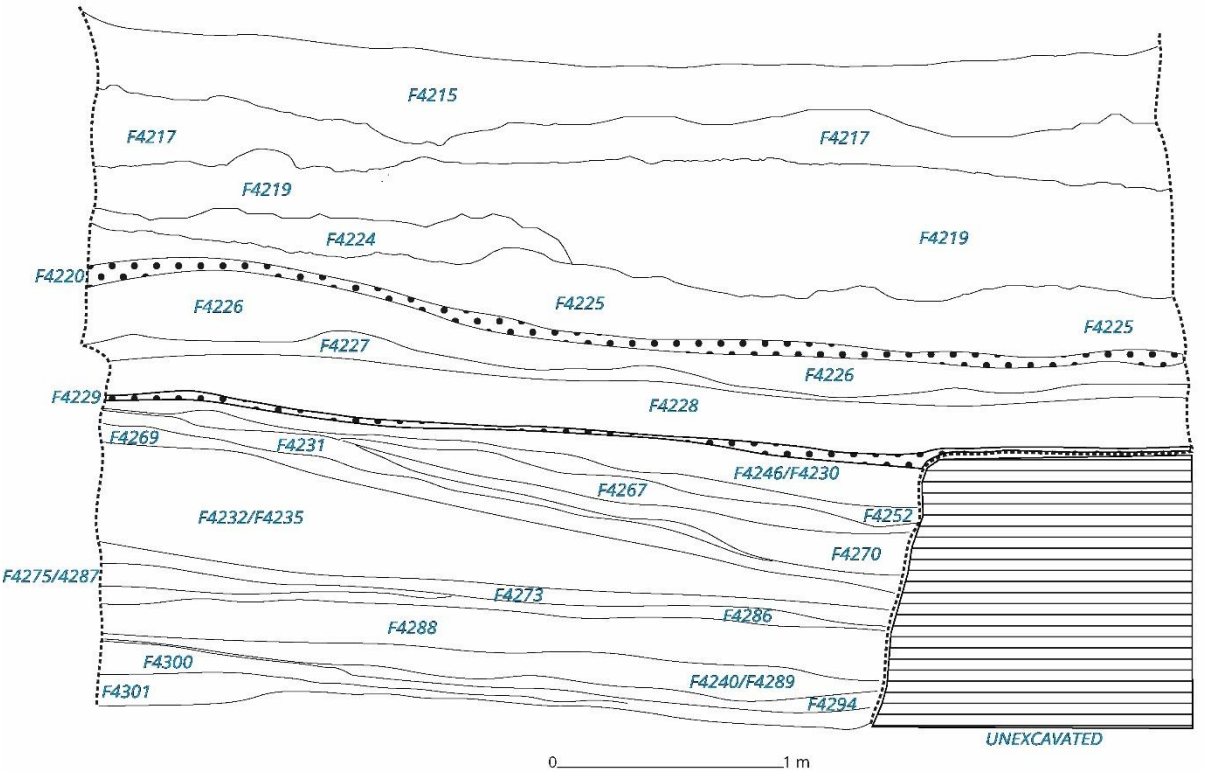


Figure 103 Stratigraphic profile of Room C, facing west. The layers indicated with dots are the possible working surfaces or preparation layers. The room's southern wall (F4031) would stand to the left of the drawing.

There is limited data for comparison because the excavators do not always reach the lowest wall courses, even though foundation levels are often the only surviving remains of buildings. On the other hand, *tell* formation implies construction over earlier buildings. Karanis (Boak and Peterson

1931), Soknopaiou Nesos (Boak, Peterson and Haatveldt 1935), and Elephantine (Arnold 2003b) are only a few of the examples that include Roman and Late Roman buildings. Nevertheless, all *tell* and *kom* settlements inhabited over a long period will show analogous architectural stratification. Older buildings are often used as bases for the new ones, removing the need to dig and construct foundations (Husson 1983: 89, P.Petrie 3.16 (1), 17 mentioned this too). This possibility has been considered for the Late Roman house since Room C's walls presented discrepancies between the foundations and substructure in terms of the ratio of loamy, greyish mudbricks against light yellowish-grey clayey ones.[71] Nevertheless, the bonding of all walls and the existence of regular offsets allow arguing against this possibility. Also, it was not unusual for buildings to be constituted by different types of mudbricks. The reasons for this choice could be manifold: from the distinct physical characteristics of each mudbrick type, which would have enhanced durability, to the personal choices of the builders and the house owners, and even the availability of first choice materials (Morgenstein and Redmount 1998: 131, 143–145). The use of specific types of mudbrick for the foundations could have been related to the bricks' properties, but it remains solely a supposition without an analysis of mudbrick characteristics.

4.2.2.2 – Depth and sides of the foundation trench

The depth of the foundation trench (120 cm) (see Figure 104) and the wall foundation must have been purposeful. To determine whether the depth was standard building practice or influenced both by the environmental conditions and the existence of upper storeys, one should compare it with the data from other excavated houses. There is a paucity of data on foundation trenches of Roman/Late Roman houses. The buildings at Elephantine mostly used the older masonry walls as foundations for newer buildings (Arnold 2003b: 147); Arnold explained that the subsoil on the island was not stable ground because it was constituted by architectural remains, fills and cultural debris. On occasions where foundation trenches were dug, they would be between 10 and 35 cm deep, which is a depth deemed inadequate by Arnold. At Alexandria, on the fringes of the Delta, the foundation walls of the houses at Kom el-Dikka lay within trenches whose depth ranged from 0.5-1.5 m (Rodziewicz 1984: 62).

For Delta-specific examples, I found data on houses earlier in date than the case study house (Table 28). These examples, located in different areas of the Delta, indicate that deep foundation trenches were standard in buildings constituted by multiple storeys. Scholarly publications of building foundations often point to shallow trenches and stone foundations (Spencer 1979: 120–2), but the cases where shallow foundations were detected seem to be influenced by sturdy (rocky) grounds, which is

[71] I discussed with architect-engineer Elisa De Rossi whether the lower part of the wall —placed within the foundation trench— could have been constructed separately from the upper part or if the lower part of the wall might have constituted an earlier building stripped to the foundations. De Rossi observed the photographic documentation of the walls and concluded that the only way to investigate this would be to chemically analyse the composition of the mudbricks (E. De Rossi 2020, personal communication, 26 September).

not the case in the Delta. Indeed, Husson (1983: 90) commented that the high number (no specification provided) of collapsed and ruined buildings listed in papyri might be due to structures that were not very solid or had inadequate foundations.

Table 28 Depth of the foundation trenches of a sample of tower houses from the Late and Ptolemaic periods.

Site	Depth of foundation trench	Source
Kom Wasit: The House of the Horses	30-46 cm	(Herslund 2019b: 91)
Kom al-Ahmer: casemate tower house	91 cm	(Badalucco 2019; Zorz and Bonanno 2019)
Tell el-Herr: end of 5th-early 4th century BCE tower house (northwest sector)	120 cm	(Marchi 2014 p. 89)
Tell el-Herr: Ptolemaic tower house (eastern esplanade)	150 cm	(Marchi 2014: 96)
Tell el-Herr: Ptolemaic tower house (northeast sector)	3 m	(Marchi 2014 p. 98)
Tell el-Dabʻa: Late Period tower house in area A/II h-i/10 - 11	100 cm	(Lehmann 2014: 60)
Tell el-Dabʻa: Late Period tower house in area A/I - e/17	193 cm	(Lehmann 2014: 61)
Marea: Ptolemaic tower house ST300 (Sector 3) with stone foundations	no evidence of a foundation trench, which led the investigators to suppose it might have been constructed within a foundation pit instead	(Pichot 2014: 139–40)

The depth of foundation trenches will vary depending on how weak or poor the ground is; therefore, there cannot be a standard depth (C. Augarde 2021, personal communication, 5 October). Hadji-Minaglou (2014: 51) stated that the foundations' depth and the thickness of the loadbearing walls of the tower houses of Tebtynis are connected to the number of storeys the buildings had. On the other hand, Nowicka (1969: 39, 112) mentioned shallow foundations (in Philadelphia) about 10 cm deep due to the hard bedrock; Flossmann-Schütze (2014: 14) also reported shallow foundations (between 15 and 20 cm) of Ptolemaic tower houses built over a limestone bank at Tuna el-Gebel. Fathy and Dabaieh provided modern examples: the former mentioned that the foundation trenches of the houses at Gourna (Upper Egypt) were 1.5 metres deep (Fathy 1973: 179), while the latter wrote that some modern mudbrick houses at Balat (Dakhleh Oasis) employ shallow trenches of 10-20 cm, while others are equipped with rock foundations of 50 cm (Dabaieh 2011: 134).

According to the NHBC Standards (2021), the minimum depth of a foundation trench increases depending on the Modified Plasticity Index in shrinkable soils, meaning that at least 35% of the soil's content is composed of fine particles of silt and clay. In the case of Kom al-Ahmer, the site was founded over a levee constituted by well-sorted micaceous coarse silts and very fine sands surrounded by a terrestrial, though seasonally wet, floodplain (Pennington 2019: 63, Table 4.3); Pennington (2019: 65) commented on the possible initial need to consolidate the water-logged nature of the environment. As discussed in *Section 2.2 – A wetland environment between the coast and the desert*, water could put the buildings at risk; soil swelling and shrinkage posed threats to settlements and structures in the past and

still does (see an example from the Eastern Nile Delta in Ismail and Ryden 2012: 1175). Past settlements needed to be above the flood level; hence many sites were located on sandier levees, which would provide more stability than clay. Deep foundation trenches would allow the walls to reach a depth where the ratio of soil's moisture would ideally remain balanced.

Although turtlebacks are often constituted by less than 10% of fine particles, the case of Kom al-Ahmer differs. Core auger results in the area of Unit 4 indicated that the levee sediments were composed of approximately 50% (±20%) of clay and silt fine particles. The ratio reduces in proximity to the river channel immediately west of the site and increases moving east (B. Pennington 2021, personal communication, 10 January). Therefore, the approximate percentage of fine particles falls into the category of shrinkable soils that would require digging a foundation trench over 75 cm deep (NHBC Standards 2021). This consideration is applicable mainly if the building was intended for long-term use; on the contrary, a temporary construction may not have required a deep trench or none at all, especially since the excavation of a trench would have required more time and bricks. For instance, the walls of the eastern addition to the Late Roman house at Kom al-Ahmer were smaller in width than those of the house, and the lack of evidence for foundation trenches can imply that the addition was not planned to have an upper storey.

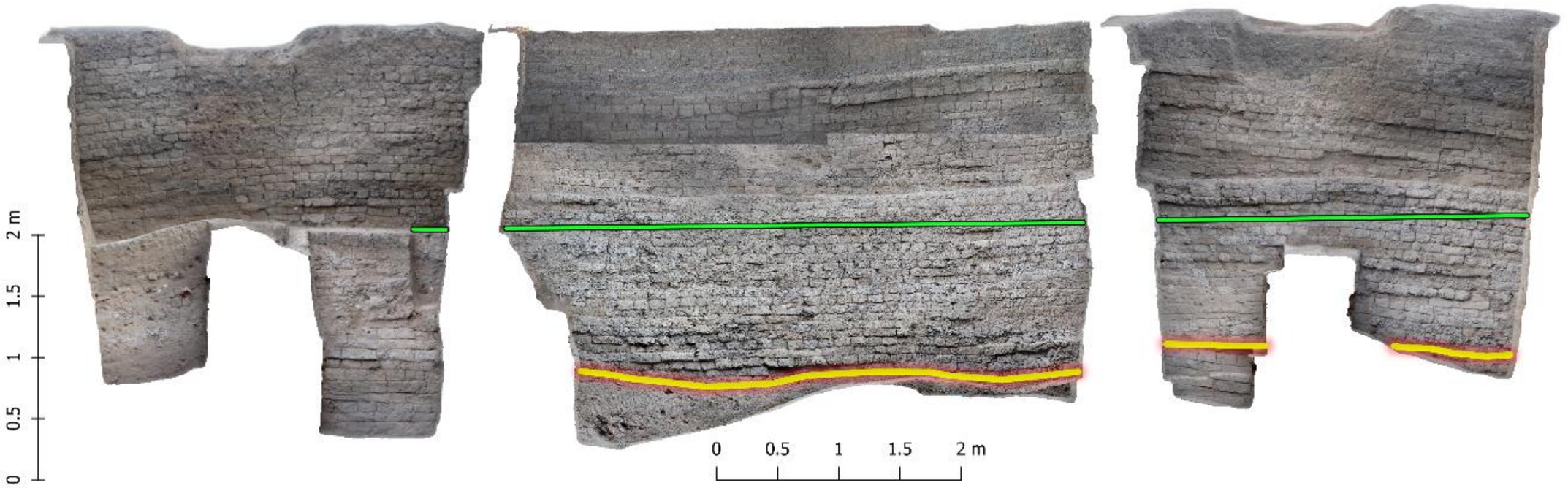


Figure 104 Internal wall profiles. The top images show the internal facades of walls F4036, F4032, and F4031, respectively (Room C); the lower image shows the internal façade of wall F4061 (Room B). The yellow lines indicate the lowest detected courses of bricks, and the green line indicates the level at which the foundation trench was identified.

The use of straight and sloping sides in foundation trenches should be considered since both instances were observed in the excavation unit of the Kom al-Ahmer case study house. Often a foundation trench is visibly identifiable when it is not entirely packed with bricks; the space left empty is backfilled, frequently with soil, and this allows to visually register the existence of the foundation trench. The fact that a structure had a visible foundation trench does not imply that all walls would have had foundation trenches, either visible or not. The case study house exhibits a degree of variation, with some of the walls filling the foundation trench without backfill (for instance, the house's southern wall F4031, as seen in Figure 103). This variation fits with the evidence detected from other sites in houses of a variety of temporalities, where not all the walls of a building were laid within foundation trenches (see *Section 4.2.2.1 – The Late Roman house's foundation trench*), which may also depend on the fact that trenches are not visible when filled by the wall and if the level of the trench is not reached on both sides of the wall.

There are examples of this variation at Kom al-Ahmer and Kom Wasit: the House of the Horses was a Ptolemaic platform casemate tower house that had been built within an excavated space that was filled with the building's bricks on all sides aside from one, which was backfilled with soil and therefore the only visibly detectable part of the trench (Herslund 2019b: 91). The tower house of Unit 9 at Kom al-Ahmer also exhibited a foundation trench, albeit this was detected on three sides of the house (Badalucco 2019: 8; Müller and Herslund 2018: 18, 27; Zorz and Bonanno 2019: 14). In both cases, the bricks had been laid directly over the ground reached by the foundation trenches. It should also be reminded that most of the southern and eastern additions to the Late Roman house, which consisted of smaller walls, had been laid over bare earth.

It should be considered that the trench fill could afford a degree of protection to the wall. If the fill were constituted by a type of soil whose grains do not react to water, it would allow the wall to 'breathe', thus avoiding water retention (A. Rivera Vidal 2021, personal communication, 9 April). A wall's ability to 'breathe,' concerning walls created with 'organic' materials sourced from the nearby environment, is essential for maintaining the equilibrium between the building and the environment (Keefe 2005: 69, 144). Clay, in particular, reacts to water as it retains it more (Ashman and Puri 2002: 30); instead, highly permeable granular soil retains water much more loosely (Day 2001: 6.77). Granulometric analysis was not performed on the soil fill of the house's foundation trench; nevertheless, the fill had a silty texture with compaction between loose and crushable, substantially different from that of the other deposits that the trench cuts (Figure 105). The presence and absence of backfilled trench sides could also denote a response to the surrounding context, such as a source of humidity on one side of the building retention (A. Rivera Vidal 2021, personal communication, 9 April). This possibility cannot currently be verified for the house due to the depths reached by the excavation.



Figure 105 The foundation trench of wall F4032, cutting through the beaten earth surface F4229. The cut visible to the west resulted from a looting activity between November 2018 and April 2019.

4.2.2.3 – Foundation layer

A foundation packing layer can be constituted by a material different from the wall. In terms of functionality, a tightly packed layer of different material separating the lowest courses from the ground can act as a damp course, impeding water infiltration and providing the building with a levelled foundation that could support it. The presence of such a layer may be indicative of the environmental circumstances that could affect the stability of a house; based on this assumption, there may be a difference between the houses of Lower and Upper Egypt and this section will explore this possibility.

In the case study house, the lowest course of mudbricks of the eastern wall (F4032) had been laid out solely in stretchers; no change was noted in the bonding (no side headers), and they had been positioned directly over a thick clayey deposit (F4299) with inclusions of slag (large fragments) and fragmented fired bricks (Figure 106). This deposit pre-dated the foundation trench, which had cut into it, thus not being placed purposefully for the house's foundations. This choice seems unusual (it is preferable to have something separating the wall from the ground to protect it from the underlying humidity; A. Rivera Vidal 2021, personal communication, 9 April), but nothing was detected.



Figure 106 The base of wall F4032 of the house. The lowest course of mudbricks lies directly over a soil deposit (F4299).

Evidence demonstrates that a foundation layer in a different material than mudbrick was not always the case. *P.Petrie* 3 46 (1), 17-18 provided the information that bricks could be used to construct foundations (Husson 1983: 232), and there are archaeological examples. D. Arnold (2003a: 94) described the foundation of Egyptian mudbrick walls as being constituted by mudbricks lying on their long side (stretcher) and the lowest two to three courses would be wider than the wall on both sides; at Late Period and early Ptolemaic Tell el-Dabʿa, the foundations of tower houses were of mudbrick laid into foundation trenches and directly on the ground (Lehmann 2018: 361); Late Roman houses at Elephantine had foundations that prevalently fall into few categories: walls built over older walls, or shallow (10-35 cm) and deeper (35-80 cm) foundations where the lowest brick course had the bricks laid vertically (to sustain the weight better) or lying over a foundation of stone (Arnold 2003b: 147–8). Boozer (2015a: 145) specified that foundation trenches were not used for all walls of the 4th-century house B2 at Amheida (Dakhleh Oasis).[72] Boozer observed that the wall foundations were often constituted by mudbricks laid over what seemed to be windblown sand —thus, not purposefully placed— the lowest courses were of vertical header bricks[73] overlaid by a stretcher course that protruded (between 3 and 5 cm) from the wall (Boozer 2015a: 72, 79, 132). Since the foundation trenches could

[72] The walls with an associated foundation trench were F1=F32, F5, and F9.
[73] Grossmann (1980: 73) commented on 'the advantage of a somewhat greater compressive strength of the upright brick layer' and the fact that it can only be used at the foot of the wall.

be detected, it can be assumed that they were visible alongside the walls, meaning that the trenches could have been sloped or, if straight, they would not have been filled with bricks, and there would have been a gap left to be filled with material. The foundations were not deep as only a few wall courses could be detected, thus implying that there was no necessity for a deep foundation, particularly in a geographical area with a limestone and sandstone plateau (Boozer 2015a: 33). Boozer often mentioned that data from the area of the investigated house (Area 1) pointed toward the possibility that the area resulted from a single large-scale construction episode (Boozer 2015a: 155).

Table 29 compares the geographical location and geology of the regions of several sites —of different temporalities— against the use or not of a foundation packing layer to gauge if it was a standard procedure. The examples demonstrate a range of possibilities: the preparation and building of the foundations depended on the geology below the settlement and the longevity of occupation, but also on the opportunities available to the builders and the individuals who had commissioned the construction in terms of materials available and their costs. In addition, we should also consider pragmatic circumstances, such as if there was an economic readiness to use a given material if it were available, whether the current administration was investing in procuring and working it, and ultimately if it was necessary to use it or if it was possible to make do with less expensive materials.

Table 29 Comparison between the foundation packing layer and the geological condition of the ground of a sample of sites in various regions of Egypt.

Site	Geographical location	Geology	Foundation packing layer
Deir el-Medina	west Nile bank Upper Egypt	desert valley (Toivari-Viitala 2011: 1, 3)	stone rubble foundations
Amarna	east Nile bank Middle Egypt	low flat desert setting (Stevens 2016: 2–3)	mudbrick laid over the ground
El-Ashmunein	west Nile bank Middle Egypt	floodplain (Bunbury and Malouta 2012: 121)	mudbrick laid over accumulated fill
Tell el-Dabʿa	Eastern Nile Delta	floodplain, levee (Lehmann 2018: 55)	mudbrick laid over the ground
Tell Timai	Eastern Nile Delta	floodplain, levee (Blouin 2014: 38)[74]	sand layer beneath the casemate
Karanis	Fayum oasis	limestone ridge overlooking floodplain (Boak and Peterson 1931: 2–3; Bos 2007: 96; Gazda and Wilfong 2004: 1)	stone foundations (for some houses)
Pelusium	Northwestern Sinai	marshes (Maślak 2009: 139)	yellow sand in combination with fired and mudbrick foundations
Amheida	Oasis environment	limestone and sandstone plateau (Boozer 2015a: 33)	mudbrick laid over the ground
Kom el-Dikka	Western Nile Delta, coastline	combination of lagoons and coastal limestone ridges (Hammad 1975)	stone rubble foundations
Elephantine	Island in the Nile Upper Egypt	granite formation (Snape 2014: 143)	mudbrick or stone foundations
Kom Wasit	Western Nile Delta	floodplain, levee (Pennington 2019: 64)	mudbrick laid over ground
Kom al-Ahmer	Western Nile Delta	floodplain, levee (Pennington 2019: 64)	mudbrick laid over ground or fired brick layer

Table 29 indicates a pattern: among the sample sites, those in the Delta, in the floodplain, seem to be more likely to be provided with a mudbrick foundation than sites located in regions with a lower likelihood of having their structures impacted by humidity and rising damp via capillary action. This pattern seems congruent with the difficulties of sourcing stone in the Delta. Nevertheless, the majority of sites in the Delta were located on river levees or sand *geziras*, which provided a ground onto which build that was relatively higher than the water table and the water level during the inundations; furthermore, many sites were *tells* with multiple phases of occupation that had made them 'grow' in elevation. This premise might have been sufficient to satisfactorily safeguard the foundations of buildings, at least for a while. Houses were not intended to last forever; the residential districts were described in papyri and observed in archaeological contexts as dynamic cityscapes in constant change framed by constructions, additions, divisions, partitions, amalgamations, reconstructions, and

[74] It should be mentioned that one auger among the coring carried out in 2009 at Tell Timai (Littman and Silverstein 2009; Littman et al. 2010) revealed the presence of *gezira* sand at a depth of 8-10 m in the northern sector of the site (Morriss 2012: 35). This finding has led Morriss to advance the possibility that Tell Timai could have partially been founded on a Pleistocene turtle-back.

demolitions: 'the rooms of today become the cellars of the next generation, and the urban mound rises even higher (Bagnall 1993: 49).

Moreover, in the cases where it was possible to employ a foundation base of different materials to mudbrick, the benefits may not have been advantageous enough to justify the effort and the investment, especially if a similar result could be attained with mudbrick, which was cheaper and readily available. It has been asserted that mudbricks, mixed with binding agents such as straw and cow dung, can withstand water (Fathy 1973: 224). Limestone, the most common type of stone found at the site, would be susceptible to rising damp, leading to deterioration (Outdoor Sculpture Manual - Center For Public Buildings 2016).

Stone and fired bricks seem to become more prevalent at Kom al-Ahmer from the Late Roman period (Kenawi and Marchiori 2019a, 2019b), with stone previously noted in the Ptolemaic contexts for smaller fixtures, such as limestone door hinges (Müller and Herslund 2018: 6, 11); at the nearby Kom Wasit, stone was not detected if not in specific instances such as the Hellenistic bathhouse (Mondin et al. 2021: 575) and the temple enclosure wall, where one limestone boulder and two limestone blocks were encountered in a secondary position (Müller and Kenawi 2019 figure 8.107). While the quantities of material were affected by later removal and looting, the remains of stone and fired brick constructions at Kom al-Ahmer (the Roman bathhouse, the Late Roman cistern) testify that these materials could be made available in the Late Roman period. The fact that the case study house's builders did not include them in the building's foundations indicates that a mudbrick foundation was deemed sufficiently adequate. Even the earlier temple enclosure at Kom Wasit was of mudbricks laid inside a foundation trench, and the mudbricks courses of its central platform had been laid over a compact soil layer (Müller and Kenawi 2019: 133–135, 158–159). The remains of Unit 4 reveal a conscious choice not to superimpose newer buildings directly over older ones and instead place them partially over while cutting through them at the same time. While there could be urban planning reasons behind this choice, it highlights that using older buildings' foundations as a solid base for new buildings was either not a structural necessity or was not being considered.

Allowing contact between the mudbrick wall and the ground can have advantageous effects: the interaction allows the bricks to retain a beneficial amount of moisture content (also through capillary action) which prevents complete dry-out and suction and, in turn, favours brick strength by maintaining normal clay swelling, the stable bond between the clay's grains (Morgenstein and Redmount 1998: 142). The same effect is reached with the covering of the walls' facades with mud plaster, which precludes dry-out and over-wetting (Morgenstein and Redmount 1998: 142–3). Dry-out can lead to shrinkage cracks (Keefe 2005: 96); thus, humidity is part of the mudbrick and the building's well-being as long as a certain level of control is maintained and not exceeded.[75] The vernacular buildings so far

[75] Mudbricks always need some water to hold themselves together; they would pulverise if they went completely dry (C. Augarde 2021, personal communication, 5 October).

investigated at Kom al-Ahmer and the nearby Kom Wasit, whose lowest brick courses were reached, were all placed directly over the ground, with no layering of any kind placed between the bricks and the ground's soil (Herslund 2019b: 72, 91).

Ethnographical evidence offers further insight into the environmental issue concerning architecture: the architect Hassan Fathy (1973) evaluated the environmental conditions for the establishment of the New Gourna Village in Upper Egypt, built between 1945-48 using traditional mudbrick architecture, and compared the circumstances of Upper Egypt with those of the Delta. Fathy acknowledged the hindrance of transporting stone into the Delta and noted that the walls of peasants' houses did not have stone foundations and were usually laid into 20-25 cm deep trenches where the mudbricks would be positioned directly over the soil, without a layer of any material separating them. Though described as "a most unsound constructional procedure", Fathy also recognised that shallow trenches and mudbrick would permit swift reparation of eventual cracks. In addition, Fathy further remarked that the rise and fall of subsoil water are different between the Delta and Upper Egypt, pointing out that they are less severe in the former due to the compaction of soil, which he claimed was a consequence of perennial irrigation and lack of periodic flooding. This disparity is further viewed in Delta mudbrick houses suffering less from extensive lateral movement while still being prone to vertical movement, which is bolstered by the rise of the water level, leading to the swelling of the soil and the subsequent capillary action into the wall (Fathy 1973: 223).

In general, Fathy reckoned that the physical state of soil in the Delta was more secure than that in Upper Egypt, observing that the weight of house walls in the Delta helped compact the soil and stabilised the structure (Fathy 1973: 223). Fathy did not mention any specific location in the Delta, broadly referring to the region. The assertion of the absence of periodical flooding is unclear; it might be a reference to the Aswan Low Dam, constructed in 1902 and further improved in 1912 and 1934, but the management of the Nile waters was attained solely after the construction of the Aswan High Dam in 1964 (Stanley and Warne 1993: 633). Given that the New Gourna Project took place between 1945 and 1948, it can be assumed that the considerations reported in the book resonate with Fathy's work in the 1940s. Thus, what was meant with the absence of periodical flooding is a bit unclear unless he was referring to a more controlled and predictable inundation flow. Even so, it can be highlighted that the construction of mudbrick buildings without protective foundation layers is a construction option that has persisted throughout time.

4.2.2.4 – Comparing the building foundations of the house and the robbed foundation trench

The excavation of Kom al-Ahmer's Unit 4 exhibited two different cases of foundation trenches: those of the Late Roman house and those of the building that would have laid within the robbed foundation trench. The latter was either deprived of its building or never built. In terms of chronology, the Late

Roman house was erected sometime during the second half of the 4th century CE, whereas the robbed foundation trench dates after the mid-5th century CE. Though these are just two examples of foundation trenches, they provide the possibility to compare the construction techniques.

The trench of the Late Roman house had been set out following the levelling of the earlier structures and the laying of a preparation layer (F4074-F4229), in which the foundation trench was cut; therefore, the house had been built into a foundation trench purposefully excavated for that. The trench did not imply a large-scale excavation of a whole area —as seen in Ptolemaic tower houses with casemate platform foundation— but solely followed the contours of the building and thus probably also that of the internal walls. This trench reached a depth of roughly 120 cm, at least for the perimeter walls; the length between the preparation layer and the lowest brick course of the internal wall F4061 was roughly 70 cm (Figure 104). Since all the house walls had been bonded together, it can be assumed that they were all load-bearing walls; as such, it is ambiguous why the internal wall would have required a shallower trench. The trench had been cut straight —vertically— for some of the walls (F4031, F4036, F4061) and their bricks had been positioned against the cut of the trench, thus not making it possible to detect the trench. On the contrary, a space was left to be backfilled with soil for one wall (F4032).

The robbed foundation trench followed the same orientation as the house. It was rectangular, but it might have extended west and impacted the eastern wall of the Third Building and the eastern wall of the house's Room A, which could explain why the walls had been partially levelled in both areas. Therefore, the current remains may not be wholly representative of the dimensions of the building that was being planned. The sides of the trench were measured, and the average depths were calculated (see Table 3 in the Appendix to Chapter 3); the amounts differ because the trench was partially compromised, probably due to the same event that removed the superstructure of the other buildings. The depth of the southern side, which was the most preserved side, was 55 cm; however, it cannot be said whether this was the intended depth or solely what was preserved. A layer of fired bricks (F4139) was identified only on the base of the eastern part of the trench, and it was made up of fragmented and worn fired bricks neatly arranged in irregular rows (Figure 107). The bricks were not stacked; they had been placed obliquely, with the header sides facing upwards. They filled the space within the trench base but did not reach the northern and southern limits. The fired brick layer was the most remarkable difference between this foundation trench and the house. There were no remains of the structure intended to be erected within the trench; it was either wholly stripped or never built.



Figure 107 The packing layer (F4139) found within the eastern side of the robbed foundation trench.

The similarities and differences between the two foundation trenches have been compiled in Table 30. The unknown characteristics are wholly dependent on the conditions of the remains, and the excavation reaches.

Table 30 Comparison between the foundation trenches investigated in Unit 4: the foundation trench of the Late Roman house and the Robbed Foundation Trench. The ticks refer to features detected in the foundation trenches and the crosses to features that were not detected, whereas the colours highlight features in common (blue) and differences (yellow).

	Foundation Trench of the Late Roman House	**Robbed Foundation Trench**
Previous structures levelled	✓	✓
Preparation layer laid out	✓	Unknown
Directly laid over previous structures	×	×
Cut previous structures	✓	✓
Vertical sides (only)	×	✓
Sloped sides (only)		
Combination of vertical and sloped sides	✓	×
Subsurface packing	×	✓
Backfilled sides	✓	/
Potential for backfilled sides	/	✓

Table 30 highlights that the two examples share similarities in urban planning and placement. In both cases, the builders opted to level the area by demolishing the supposedly vacated buildings rather than maintaining congruency with the urban layout. The buildings were not placed directly over the earlier ones but instead cut through the remains; as such, there was a conscious choice not to use the earlier structures' walls as a solid base, as seen in the Fayum sites (see Wilburn 2010 for the digital re-mapping of Karanis with GIS, with the view in ArcScene of the superimposed buildings over earlier ones). Though there was a time span between the use of the Roman Room and the construction of the Late Roman house, the robbed foundation trench seems to have been implemented soon after the demolition of the house. As such, the reasons for this choice might have been preferential of the new builders or planners, and it could have also depended on the larger dimensions of the newer building, as the robbed foundation trench was rectangular and larger than the house. It cannot be said if the same reasoning can be applied to the positioning of the Late Roman house partially over the Roman Room, as the latter's full extent remains unknown. The eastern-most part of the house's southern wall lies over the western-most part of the Roman Room's southern wall; however, this does not seem to have been done deliberately (more on this in *Section 4.2.3 – Walls*).

It is interesting to note that the placement of the robbed foundation trench, at least its western wall, coincided with the position and orientation of the Roman Room's western wall rather than with that of the Late Roman house (Figure 108). Though it is an intriguing occurrence, it seems more of a fortuity than a reasoned choice; there is no physical relationship between the Roman Room and the robbed foundation trench, with approximately one metre of stratigraphy separating them. It is thus doubtful that the robbed foundation trench would have aimed to use the western wall of the Roman Room for support, particularly since the builders behind its planning and laying out had no trouble in cutting through the house, hence denoting a lack of need to place the new building over the foundations of earlier structures.

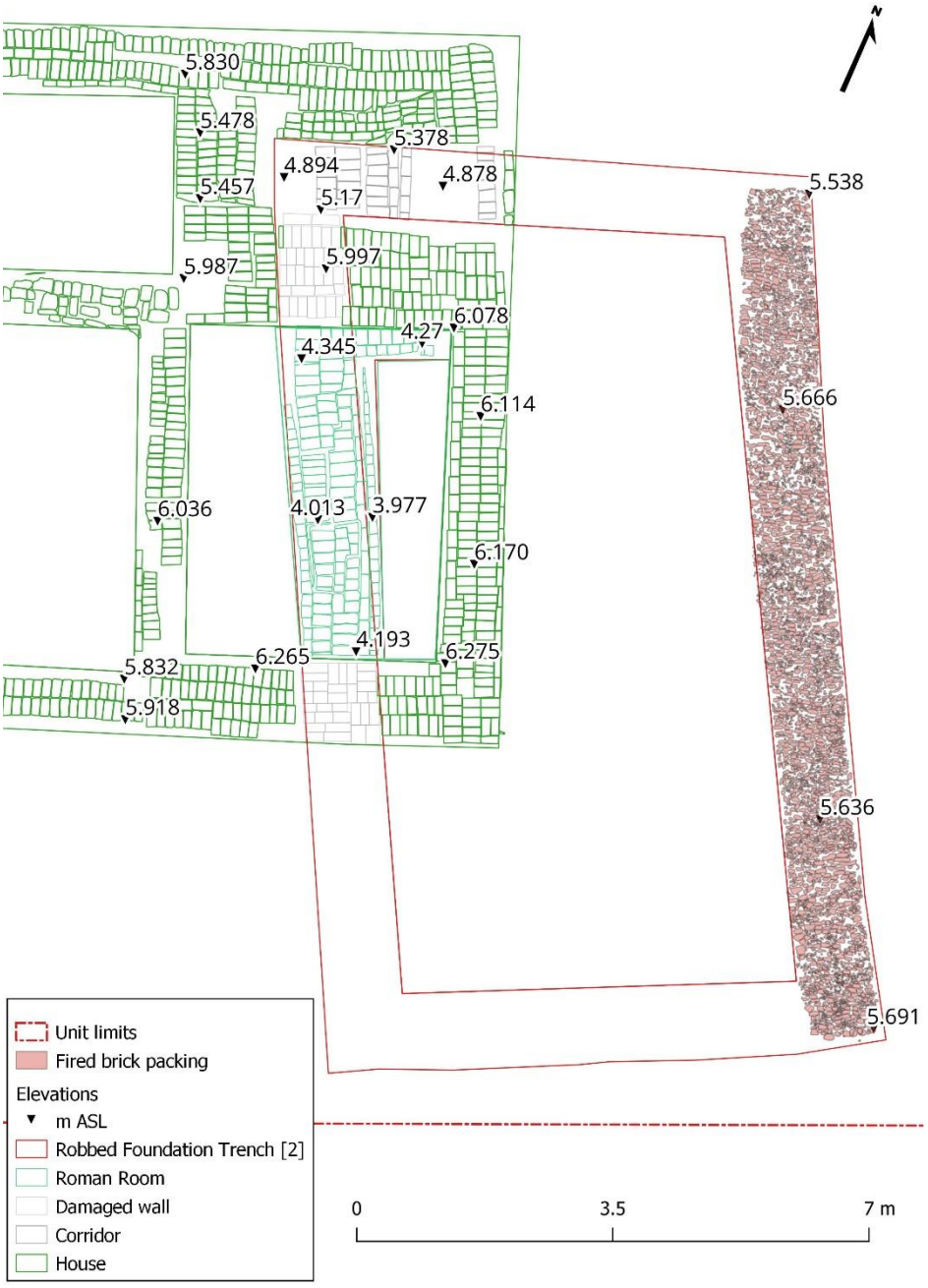


Figure 108 Plan of the southeastern area of Unit 4 showing the position of the Late Roman house, the Roman Room, and the Robbed Foundation Trench. The three contexts included in this plan are all not contemporary: the Roman Room precedes the house, and the robbed foundation trench was implemented after the demolition of the house.

It appears unlikely that the placements of the Roman Room and the robbed foundation trench were correlated. This statement does not intend to disregard the implication that the inhabitants retained a previous knowledge of the location of the earlier buildings; instead, it is mainly linked to the fact that the superimposition without physical contact currently does not seem to serve any architectural or structural purpose. Whether there existed a purpose to this arrangement related to the phasing of the sector's urban organisation, no solid hypotheses can be advanced at this stage of the site's investigation.

While the levelling of the Roman Room had been combined with the laying out of a soil preparation layer onto which the foundation trench for the Late Roman house had been cut, the same cannot be stated for the robbed foundation trench, whose remains' integrity cannot be accounted for due to the general levelling activity that the area underwent at some point in time. Furthermore, the depth dimensions of the robbed foundation trench remain uncertain and cannot be accordingly compared to those of the house's foundation trench.

Concerning the trenches' design, the robbed foundation trench had vertical sides, whereas the house's foundation trench exhibited both straight and sloped sides, which were filled by the walls' mudbricks or soil. The sloped side did not start from the base of the trench but approximately from the level of the third course of mudbricks laid within the trench. Thus, the trench may have started with the same dimension as the wall —in terms of width at least— and then expanded in width. On the other hand, the robbed foundation trench seems to have had a regular design, with a regular width maintained by the vertical trench sides. The fired brick packing filled the trench fully between its eastern and western boundary; instead, it did not reach the northern and southern boundaries, suggesting that the void space may have been intended to be backfilled.

At first glance, it is enticing to evaluate whether the reason behind the absence and presence of a fired brick packing could relate to Egyptian-Roman cultural connotations and the employment of techniques coming from another building tradition. The packing layer is akin to that found in the foundation of Roman walls, used to stabilise the wall's foundations by creating a compact base. Examples of this kind of foundation packing can be found in Roman constructions in northern Italy, where different types of foundations have been identified (Bacchetta 2003: 64–6) (Figure 109). Adam (2014: 200, 243) also mentioned that the ground would be prepped in those instances where it was too precarious; Figure 110 shows an example of crushed tufa found in the foundation trenches of the Temple of Portunus in Rome, as well as courses of flat rubble stones. Parallels in Egypt for this type of foundation seem to be present at the northwestern Sinai site of Pelusium, where the walls of domestic and industrial Roman and Byzantine buildings were equipped with 'well-made foundation footings of fragmented baked brick pressed into the sand bedding' (Maślak 2009: 141). Maślak reckoned that these footings acted as damp courses and support layers in the marshy land.

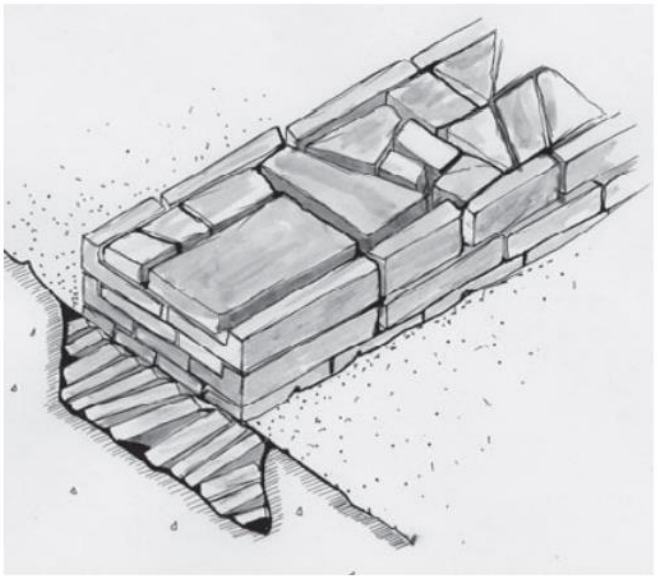


Figure 109 Example of a brick construction system for walls. According to the typology devised by Bacchetta for the geographical area studied in northern Italy, this style is called Sistema costruttivo laterizio A (tecniche tipo 1-2).

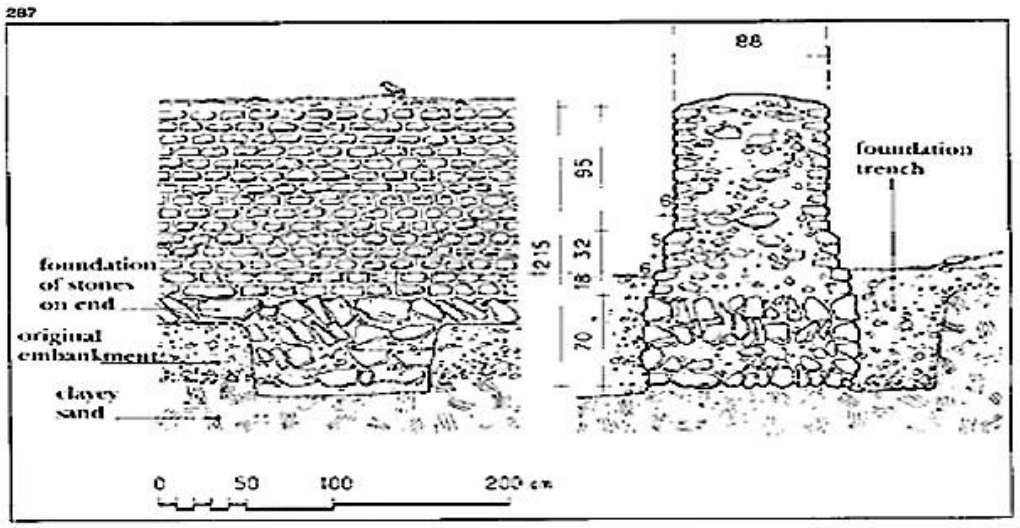


Figure 110 Example of subsurface packing to stabilise walls (Adam 2014: 243, figure 287).

Nonetheless, there are examples of Egyptian vernacular mudbrick architecture[76] that demonstrate the use of foundation layer of a different material: at el-Ashmunein, excavation of structures dating to the Third Intermediate Period revealed that walls were erected onto accumulated

[76] Foundation layers were used even in New Kingdom houses, but the following examples are earlier in time and in a different environmental situation compared to the case study house: the village of Deir el-Medina had stone rubble foundations, the lowest courses were of stone, and the walls were constituted by mudbricks (Snape 2014: 78); Amarna has most of its structures of mudbrick, with stone being reserved for fittings and grander buildings (Stevens 2016: 4, 7); in general, the buildings were either laid directly over the sandy desert ground, or into shallow foundation trenches ("which were usually only up to two courses, and sometimes less than one brick deep") whose base would be coated with a 'rough muddy slurry', or onto deposits of accumulated rubble and material culture (Kemp and Stevens 2010: 259–260, 299, 304).

fill, and perhaps also deposits of broken pottery (Spencer 1993: 29); a Ptolemaic casemate foundation platform was partially investigated in a residential area of Tell Timai (Eastern Delta) and the investigations exposed part of the lowest level of the casemate, which was found to lie over a layer of sand (Gentelli 2014: 20); Małecka-Drozd (2014: 74) has considered that the use of sand would have aided against the settlement of the building, avoiding deformation, moisture would not have altered its degree of shear and compression, and may have also be of aid against earthquakes (Arnold 1991: 114; Pisarczyk 2001: 16); some houses at Karanis had also been equipped with stone foundations (Gazda and Wilfong 2004: 23; Lancaster and Ulrich 2013: 199); some buildings at the northwestern Sinai site of Pelusium sported fired brick foundations, but yellow sand[77] was the recurrent element at the bottom of foundation trenches —either in mud or fired bricks— and floors. According to Maślak, sand was a countermeasure to the marshy condition of the land, exacerbated by underground waters (Maślak 2009: 130–140); the 6th-century houses at Kom el-Dikka, Alexandria, had a layer of mortar-less rubble of unequal size which was wider than the walls, which Rodziewicz described as standard foundations of the Late Roman period for both private and public buildings (Rodziewicz 1984: 62).

It would not seem that the robbed foundation trench embodies a diversion toward Roman building traditions. Intriguingly, Vitruvius dedicated the sixth book of the *De Architectura* (1826) to construction methods for private buildings; in Chapter 1.1, he warned the reader that construction techniques should be correlated to the country and climate (mainly temperature and precipitation) where they are built, and even mentioned Egypt and Spain as antagonistic examples. His writings imply an awareness of being cautious about environmental differences throughout the empire and following regional building traditions and common sense.

Therefore, what was the purpose of the fired brick packing of the robbed foundation trench? It would not have served as a damp course for the wall as the fired bricks would not have prevented the water from rising; instead, it could have been intended to withstand the weak ground for support (C. Augarde 2021, personal communication, 5 October). The remains of the fired brick packing were investigated further using GIS (Figure 111).[78] The height graph (Figure 112) shows the change in elevation from the top elevations besides the trench's southern side throughout its eastern side up to the top elevation besides the northern side of the trench. The middle part shows the changing elevation where the fired brick packing is placed. On the other hand, the slope percentage graph (Figure 113) shows a slight digression from the 0 line in terms of the percentage of change in elevation, suggesting that the fired brick packing layer was levelled. This analysis helps demonstrate that the fired brick

[77] 'Sand-box' foundations were used for monumental buildings; an example in the Delta is at Mendes, modern Tell el-Rubʿa, where the massive limestone platform on top of which stood four naoi (currently only one) had been built in an area described as 'saturated by the annual flood waters of the Nile.' The limestone platform lies over a layer of fine sand, which allowed for the equal distribution of the pressure from the structure (see Josephson 2005).

[78] The DEM of the southeastern quadrant of the excavation unit was generated with Agisoft Metashape from the photogrammetric model. It was uploaded in the QGIS platform, and the plug-in *Profile Tool* was used. A line starting from outside the trench and running through the eastern side stopping a bit outside it was traced and saved as a shapefile. The plug-in used both the DEM and the line to plot the terrain profile, thus providing both the height and slope percentage. The line was traced from point A to point B.

packing layer's placement helped stabilise the ground and support the building.

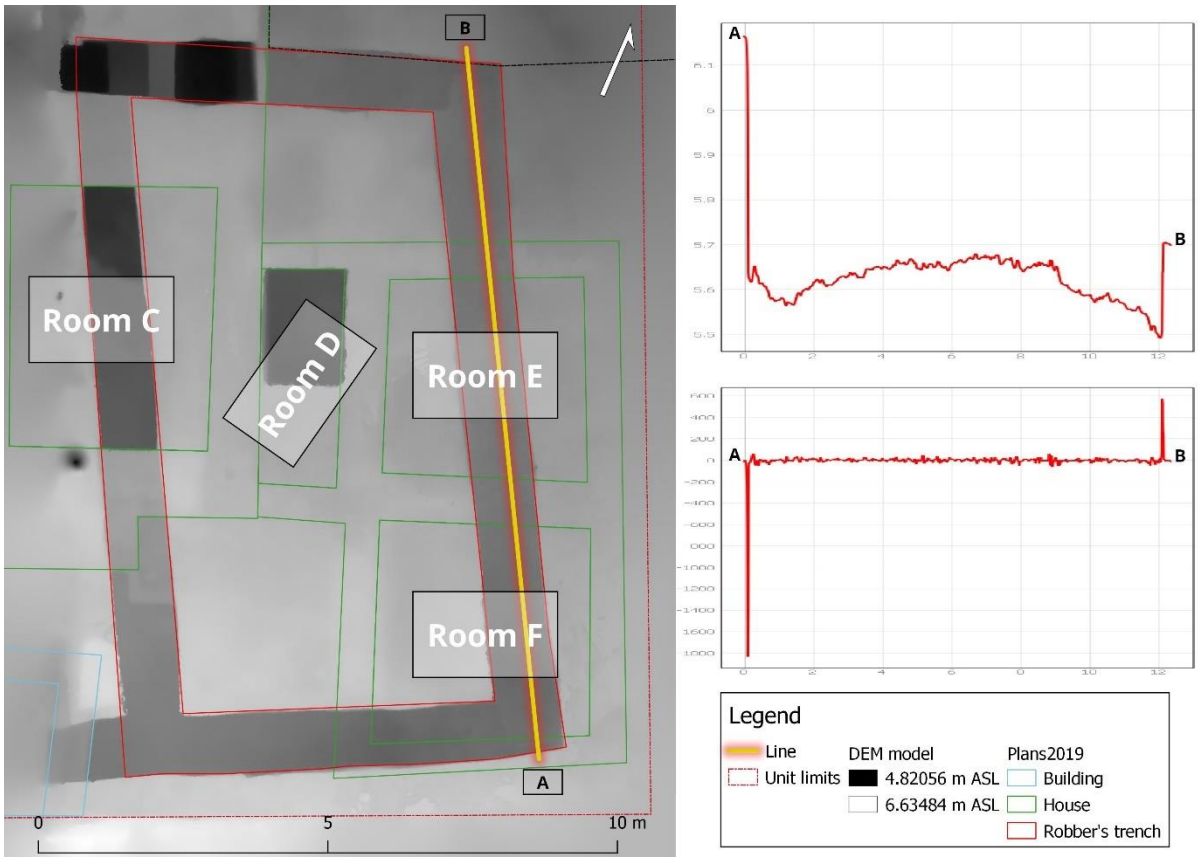


Figure 111 The digital elevation model (DEM) of the southeastern quadrant of Unit 4 during the 2017 season. The yellow line indicates where the terrain profile was plotted, starting from A to B.

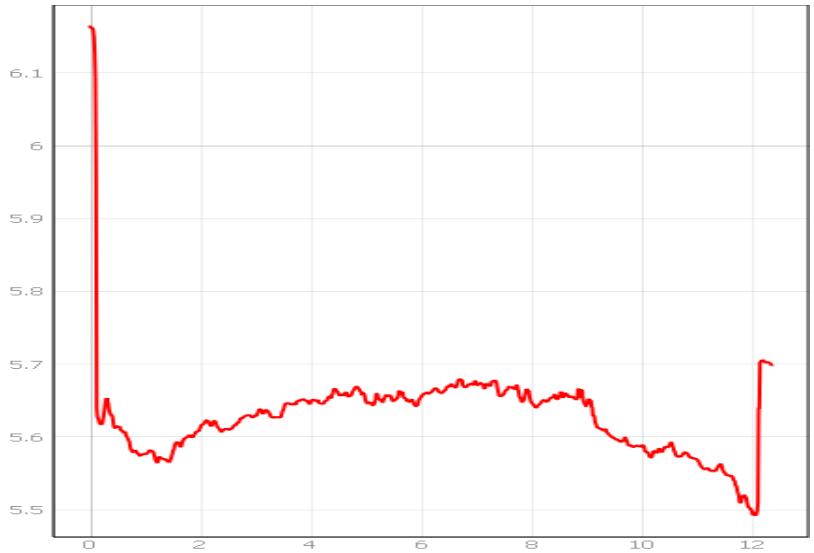


Figure 112 The graph shows the change in elevation regarding the distance from point A to point B of the yellow line (see Figure 111).

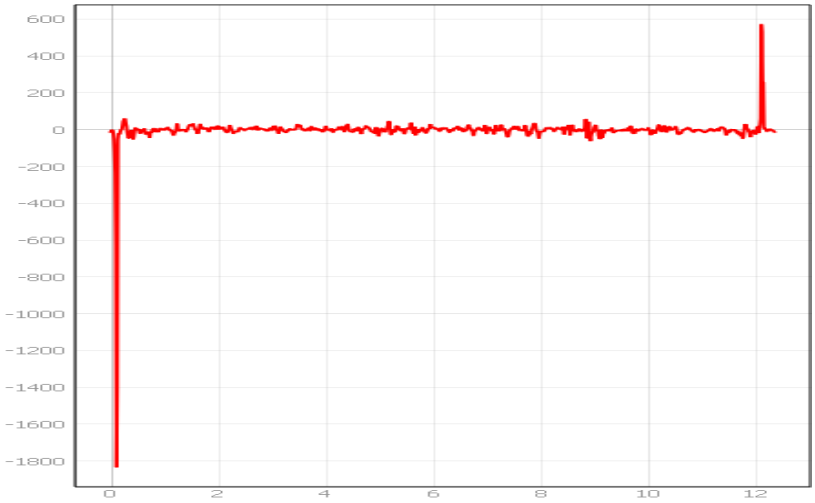


Figure 113 The graph shows the change in the slope percentage regarding the distance from point A to point B of the yellow line (see Figure 111).

4.2.2.5 – Conclusions

Regarding the research question of this thesis addressing the topic of the regional environmental context and whether it would have exerted some measure of influence on specific architectural choices, it can be argued that environmental factors would frame architectural and building decisions, but they would have also been influenced by the current cultural, social, and urban circumstances in which the settlement lived, regarding the occupational longevity, accessibility of building materials, and financial possibilities. Some choices were not considered purely deterministic but framed by personal conditions, perhaps depending on the individual(s) and administrative agencies over finances, planning, materials, and the settlements' morphology (in this case, *tell* sites). In addition, we should also consider that the use of fired bricks may have been a pragmatic choice. As the physical evolution of sites can differ rather dramatically, it is not possible to over-generalise. Instead, the cross-comparison of a small sample of sites indicates that a detailed analysis of the particular circumstances of each respective site would be the key to gauging some of the motivations behind the architectural and building choices. Investigating multiple occupational phases at a single site can expand the range of rationales.

The case of the foundation trenches in Kom al-Ahmer's Late Roman house perhaps tells us more about the developments occurring at the site at that time. We do not know if the structure that would have been erected in the robbed foundation trench had been intended as a house, there is the chance that it had been envisioned for other purposes, and it could have been erected in fired rather than raw bricks; in any case, the thought-provoking aspect is the 'sudden' change in construction technique in a site where mudbricks had been the most common building material. This change of material could be linked with a new epoch in the site's history. After all, the excavations on the central mound of the

site had revealed a group of buildings whose remains were purely in stone and fired bricks (Figure 114) (Kenawi and Marchiori 2019a, 2019b). The associated material culture allowed the excavators to date the construction of a stone cistern between the 4th and 5th centuries CE, with an indicative abandonment date between the second half of the 7th century and the first half of the 8th century (Mondin 2019: 71). These remains and those of the imperial bathhouse demonstrate that it was possible to access and transport materials; evidently, from the 5th century onwards, the inhabitants of Kom al-Ahmer had the aspiration to use and obtain costlier resources. Fired bricks would have been a costlier building material due to the expense of firing the bricks and employing a pricier mortar (Kemp 2000: 79). There could be some relation to the settlement's possible development as regional capital during the Roman, Late Roman, and Early Islamic periods (Kenawi 2019a: xvii); however, this deduction is currently restricted by the archaeological work carried out so far, as the investigation at Kom al-Ahmer is still relatively young and has yet to assess the vast majority of the preserved remains. Another possibility to consider is that the fired bricks may have been re-used and thus taken from other buildings. This option may have been cheaper and may explain the fragmented condition of the fired bricks. Furthermore, it could also fit with the suggestion on the settlement's development: if fired bricks were being re-used, then there were probably other fired brick structures in addition to the preserved ones.

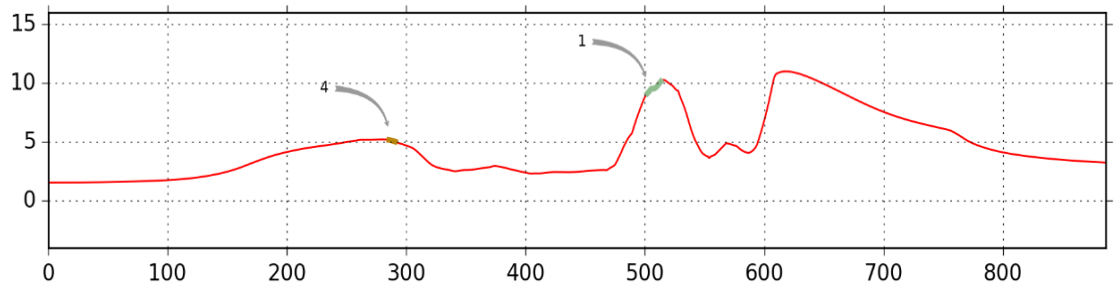


Figure 114 Elevation profile of Kom al-Ahmer (facing north). The position of the excavation unit of the Late Roman house is indicated by the number 4; the number 1 indicates the position of the site's central mound where the stone cistern was found.

4.2.3 – Walls

The house walls were bonded to each other, constructed in mudbricks, and composed of header/stretcher bonding, from the foundations to the top preserved courses. The wall between Rooms A and B (F4049) is the only wall of the house with the inclusion of fired bricks, but they seem to have been added as a form of informal repair as they were sporadically included. Room B's western wall (F4050) also had an addition of fired bricks, but they had been laid adjacent to the wall rather than lodged within it, possibly as a skirting (Figure 115).

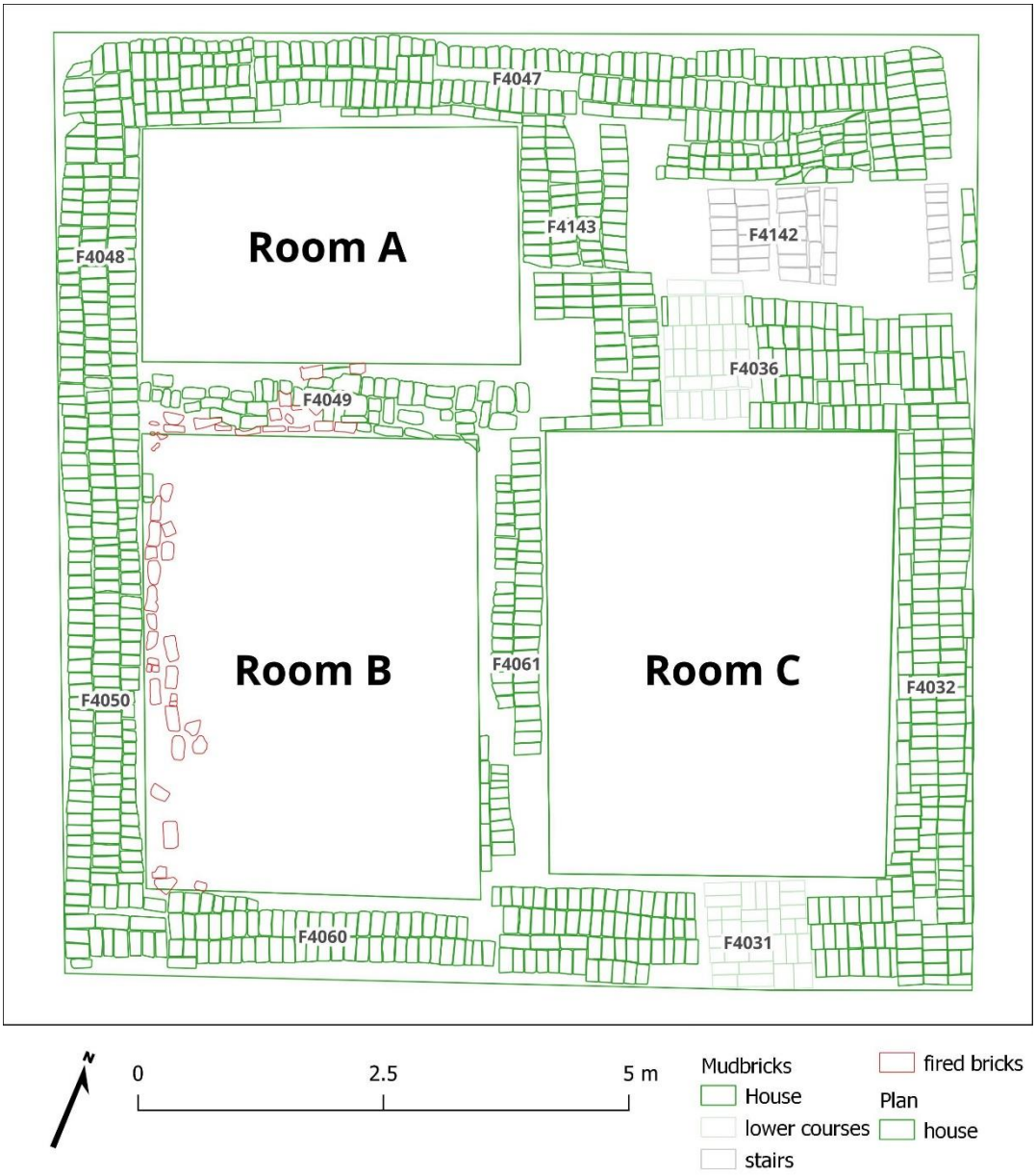


Figure 115 Plan of the house with the wall numbers.

4.2.3.1 – Width of the wall remains

The mudbricks' average size varied slightly (a few centimetres) from wall to wall but maintained similar proportions; the length ranged from a minimum of 23 to a maximum of 29 cm with an average of 27/28 cm, and the width ranged from 11 to 17 cm with an average of 15/17 cm, while the thickness was always the same (7/8 cm). The preserved walls' height could only be recorded fully in Room C as the foundations were solely reached there. The walls' widths were recorded at their top preserved part, and they varied: the perimeter walls were roughly 80 cm wide, whereas the internal walls were about 70 cm wide, but some walls on the eastern side of the house were even wider (over 1 m wide in the area used

for the stairs; see Appendix to Chapter 4, Architectural survey). The walls were battered, meaning that they had recessing masonry that reduced their width according to the increase in height (The Brick Industry Association (BIA) 1999); the existence of offsets on the loadbearing walls' internal facades attests to it. The proportion of shrinking width related to the walls' height could not be adequately measured since the external wall façades were not exposed.

Offsets[79] were present only on the perimeter walls and were primarily composed of header courses. Offsets were detected in Rooms A and C but not in Room B due to the excavation logistics. Walls mostly had two offsets; however, Room A's west wall exhibited the remains of a possible third one, whereas Room C's south wall lacked the remains of the upper one. Wall F4032 was the only wall partially exposed on the outside, and an offset was also detected on its outer façade. Table 31 and Table 32 indicate the offsets' proportions.

Table 31 The extent of the offsets in Room A.

House Room A									
Wall	*Position*	*Upper offset's elevation (west)*	*Upper offset's elevation (east)*			*Lower offset's elevation (west)*	*Lower offset's elevation (east)*	***Vertical span between offsets (west)***	***Vertical span between offsets (east)***
4049	north wall	5.49 m ASL	5.41 m ASL			4.29 m ASL	/	**120 cm**	/
Wall	*Position*	*Upper offset's elevation (north)*	*Upper offset's elevation (south)*	*Middle offset's elevation (north)*	*Middle offset's elevation (south)*	*Lower offset's elevation (north)*	*Lower offset's elevation (south)*	***Vertical span between offsets (north)***	***Vertical span between offsets (south)***
4048	west wall	5.45 m ASL	/	5.30 m ASL	5.09 m ASL	4.23 m ASL	4.20 m ASL	**15 cm and 107 cm**	**89 cm**

Table 32 The proportions of the offsets in Room C.

House Room C							
Wall	*Position*	*Upper offset's elevation (west)*	*Upper offset's elevation (east)*	*Lower offset's elevation (west)*	*Lower offset's elevation (east)*	***Vertical span between offsets (west)***	***Vertical span between offsets (east)***
4031	south wall	/	/	4.63 m ASL	4.78 m ASL	/	/
Wall	*Position*	*Upper offset's elevation (north)*	*Upper offset's elevation (south)*	*Lower offset's elevation (north)*	*Lower offset's elevation (south)*	***Vertical span between offsets (north)***	***Vertical span between offsets (south)***
4032	east wall (interior)	5.46 m ASL	5.73 m ASL	4.60 m ASL	4.76 m ASL	**86 cm**	**97 cm**
4032	east wall (exterior)[80]	5.46 m ASL	5.63 m ASL	/	/	/	/

[79] (Architecture and Building) a horizontal or sloping break or ledge on the face of a wall, etc., formed where the portion above is less thick than that below (Oxford English Dictionary).

[80] The elevations of the exterior offset of wall F4032 could only be recorded within the northern half of Room D, which was partially excavated.

The offsets provided between 10 and 13 cm of width to the walls compared to the width at the top preserved part; this figure increases if all perimeter walls had exterior offsets, as seen in the case of wall F4032. The offsets could imply that the lower part of the wall, the foundations, would have been wider and could have withstood the weight of the wall better. The perimeter walls are generally thicker than the internal ones because they have a retaining function that aims to withstand the earth pressure that applies a horizontal load on the wall (C. Augarde 2021, personal communication, 5 October).

The walls' width could also indicate the existence of upper storey(s) whose weight rested on the foundations. Houses with multiple storeys were typical in large and small settlements, possibly due to a paucity of space (Arnold 2003a: 112, 247). F. Arnold (2003b: 168–169, Tables 12 and 13) discussed wall widths of houses with specific total areas and showed a way to estimate the potential wall heights/number of storeys. Arnold did not specify any formula to obtain said results, meaning that they are considerations based on the investigations at Elephantine, where several Late Roman houses have been excavated. Table 33 shows Arnold's Table 13, which illustrates the case of a 110 m^2 building and the benefits and costs of adding floors.

Table 33 The benefits and costs of building multiple storeys in a building measuring 110 m2 (after Arnold 2003b: 169, figure 13).

	Wall thickness on the ground level (m)	**Additional materials cost (m^3 masonry)**	**Usable space (m^2)**
1st floor	0.15	37.5	99.3
2nd floor	0.20	49.4	85.3
3rd floor	0.40	95.6	70.3
4th floor	0.70	158.2	58.6
5th floor	1.15	238.4	35.7
6th floor	1.85	329.0	9.8

A further comparison with Arnold's table can be made with McHenry's table (Table 34), which provides data on the minimum thickness of load-bearing mudbrick walls. McHenry's wall width figures indicate a more cautious approach as the widths are mostly greater than those provided by Arnold, except for those for the fourth floor, which show similarity. What should be noted is that Arnold's figures are based on his study of ancient mudbrick vernacular buildings in Egypt, whereas McHenry's ones refer to modern adobe vernacular buildings in the United States. If we take the latter's table for guidance, it suggests a possible height for the Late Roman house between 5.69 and 10.67 m, perhaps at an average of around 8 m. The tentative 3D model reconstructions proposed a building of a height of roughly 8 m (refer to *Section 3.2 – Reconstruction of the phases of use of the house*).

Table 34 Maximum wall heights (in bold) in relation to the wall's thickness and maximum height-to-thickness (slenderness) aspect ratios, categorised into 8, 10, and 15 (wall thickness multiplied by a slenderness ratio figure will result in the wall's height); the ratios depend on local building codes (After McHenry 1984: 175, Table 13.1).

	Slenderness aspect ratio		
	8	*10*	*15*
Wall thickness (cm)			
25.4 (one storey)	**2.03 m**	**2.54 m**	**3.81**
35.56 (two storeys)	**2.84 m**	**3.55 m**	**5.33 m**
50.8 (three storeys)	**4.06 m**	**5.08 m**	**7.62 m**
71.12 (four storeys)	**5.69 m**	**7.11 m**	**10.67 m**

The data of the Kom al-Ahmer house falls between the categories of four and five storeys according to Arnold's table and three and four storeys according to McHenry's table. Since Arnold refers to ranges within the text, the comparison with the Late Roman house should be purely indicative. Nonetheless, deep foundations, wall thickness, a space that could have been dedicated to a stairway, a long-established building tradition of multi-storeyed structures, and the custom of using roofs in Egyptian vernacular architecture (past and present) support the hypothesis that the house had at least one upper storey as well as the roof space, that could function as an extra floor. Multi-storey houses would not have been uncommon in the Roman and Late Roman periods: houses of four and five storeys were mentioned by Diodorus Siculus (1933, 1.45.5). *P.Oxy* 34.2719 referred to a house with seven floors (the papyrus was found in Hermupolis and dated back to the late 4th century CE) (Alston 2001: 59; Huebner 2016: 161).

Nonetheless, it cannot be said whether the Late Roman house of Kom al-Ahmer would have had more than two or three storeys. Single storeyed houses and houses with four, or more, storeys seemed to have been usually found in cities, whereas two and three-storey houses were more common in villages (Alston and Alston 1997: 208–09). According to the papyrological evidence, two-storeyed houses seemed the most common (Alston 2001: 59; Husson 1983: 257–67).[81] Roof space and basement would also have provided extra space.

4.2.3.2 – Upper storey configuration

The width of the perimeter walls could indicate the upper storey configuration. The loadbearing walls F4031 and the eastern part of F4047 were considerably wider (1.15 and 1.60 m respectively) than F4048, F4050, F4060, F4032, and the western part of F4047 (0.80. 0. 90, 0.80, 0.80, and 0.80 m respectively). Though technically not a loadbearing wall, even F4036 had a distinctive width (1.50 m). These wide walls are located in the eastern part of the house, denoting the increased width as a structural

[81] 'Forty-seven per cent of village houses and 40 per cent of urban housing whose number of storeys is attested (n = 109) were of two storeys. Twenty-five per cent of attested village housing was of three or more storeys while 42 per cent of urban housing comprised more than two storeys, a difference that is statistically significant' (Alston 2001: 59).

requirement (even though F4032 has a regular width per the other walls). This part of the house could have been used for a staircase (see Appendix to Chapter 4, Architectural survey).

If we consider other examples of houses from the same period, buildings often were multi-storey, with access to underground levels and upper storeys through an internal square or rectangular staircase. The depth reached by the house walls and the rooms' levels suggests that they could have been basements. The remains of the stairs were compromised by the robbed foundation trench and did not exhibit a door or passages between it and the other rooms, which makes it unclear how the basement rooms were accessed if not via the staircase. It was not unusual that underground rooms would have been accessed by other means, such as trap doors or openings through the floors, where the use of a wooden ladder could have aided the passage between levels (for example, at Soknopaiou Nesos, see Boak, Peterson and Haatveldt 1935: plate V, figure 9; there are examples from Djeme, see Hölscher 1954, Plate 41; for an example from Karanis, see Husselman 1979: plate 51a). Also, one characteristic that is common to Egyptian houses in all periods is the use of the roof (Davoli 1998: 85, the houses of Karanis had access to the upper storey and the roof via internal staircases with central pillar; see Spence 2004: 124, all dwellings at Amarna had staircases, aside from the smaller ones); this pushes towards the interpretation that the northeastern corner of the house was used to provide access to the upper storeys or the roof, in the absence of the former. Houses with similar plans as that of the Late Roman house of Kom al-Ahmer —for instance, house 5 at Syene (Jaritz and Rodziewicz, 1994, p. 118), house C 51 at Karanis (Boak and Peterson, 1931, p. 57), and house II 203 in Dime (Boak, Peterson and Haatveldt 1935)— have the staircase placed in a corner.

How could the upper storey(s) be organised? The widths of walls F4047, F4036, and F4031 (all oriented west-southwest and east-northeast) seem to imply a possible emphasis on the eastern side of the house, but the eastern wall F4032 (oriented south-southeast and north-northwest) maintained the same width as that of the western side perimeter walls. As a matter of principle, if all the walls had a similar width, it can be assumed that they would rise to a similar height (E. De Rossi 2020, personal communication, 26 September); however, we cannot assume that houses were planned with a specific number of storeys and that alterations did not occur from the initially intended result. The enlarged width of the walls on the house's eastern side demonstrates why more resources (bricks) had been employed in that specific part of the house.

It cannot be certain whether the upper storeys rose to the same height or if open spaces were left. An example is provided by the case of an Iron Age II pillared dwelling at the site of Tell Halif, part of the Lahav research project in Israel. The ground floor's central room has been interpreted by some as the house's main living area, while others argue it was an open courtyard, with debate on whether the room was roofed or not (Hardin 2010: 51). At least four reconstruction possibilities for the second floor and roof are presented (Figure 116).

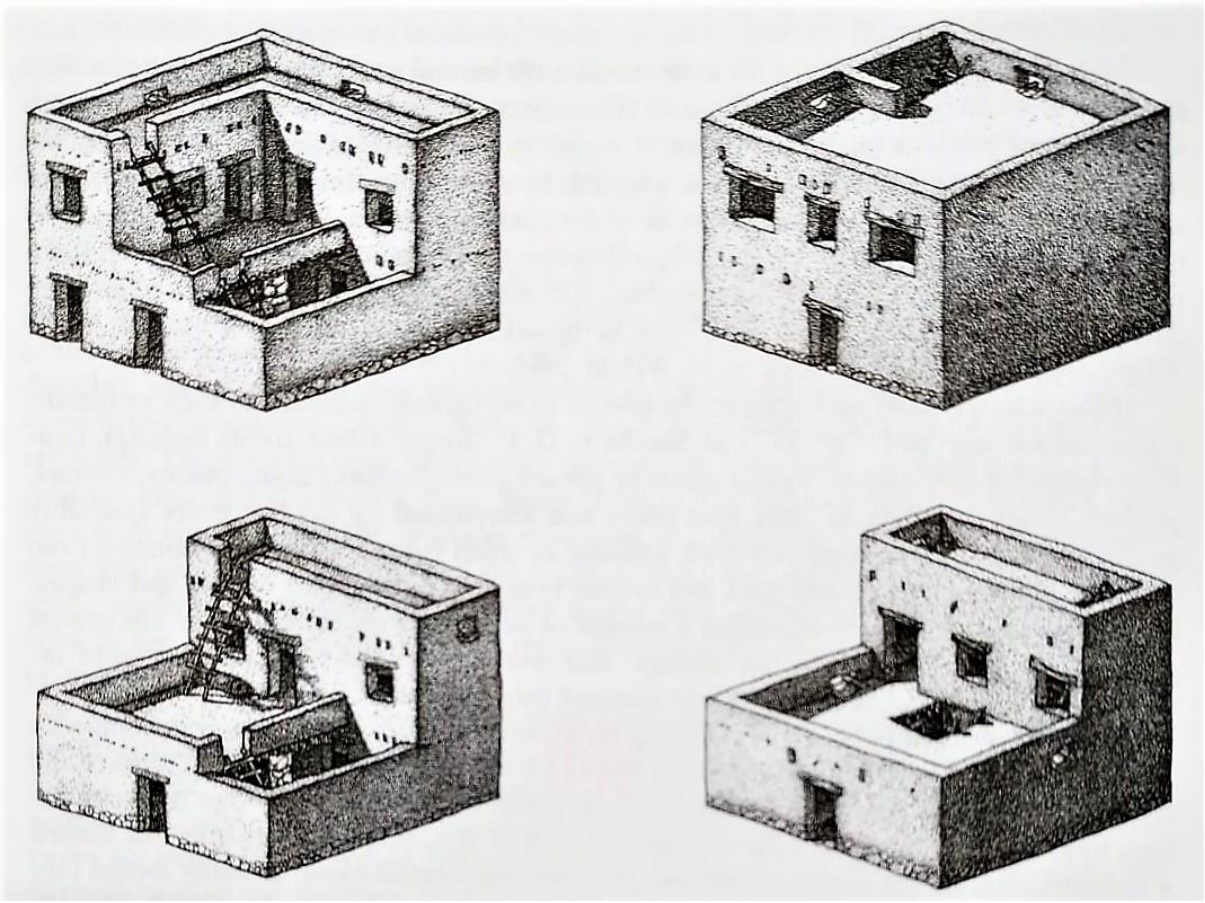


Figure 116 Four different possible reconstructions of the Iron Age II pillared house at Tell Halif (Israel) (Hardin 2010: 52, figure 3.2).

I chose to include this example to highlight the complexity of analysing architectural remains, especially bearing in mind that despite the existence of planning, there was space for changes according to the construction needs and available space, including square and rectangular house plans, the number of rooms, the position and size of the staircase (see Arnold 2003b: 183–186). We also cannot exclude that the configuration of buildings could change during their use pending changes in the household, such as the expansion of the family, work, and even a change in function of the building, e.g., shifting from a mezzanine type upper storey to a full first storey. At sites such as Karanis and Elephantine, where many well-preserved structures have been investigated, it is possible to combine the recorded observations and infer the possibilities; this is not the case at Kom al-Ahmer.

The photographic collection of Lehnert and Landrock provides many depictions of Egyptian mudbrick villages of the early 20th century. The example shown in Figure 117 illustrates what seems to be a rectangular (in plan) dwelling where the upper storey was built only on half of the space, leaving the rest to be used for open-air activities. This specific example also shows an addition with smaller and lower walls that recalls the Late Roman house's eastern addition.



Figure 117 Photograph of a dwelling in an Egyptian village in 1924 (Dr Edouard Lambelet Lehnert and Landrock 1924).

Figure 118 shows the vernacular structures of the village Kardous (Asyut) in 1965. Some upper storeys appear fully built, while others are partially occupied by architecture. Figure 119 depicts mudbrick houses in the area of the Mahmoudeya canal, in the Delta, in 1961; contrary to the other examples, these structures only have the ground floor and roof space, even if just for storage.



Figure 118 Glimpse of the village of Kardous (Asyut) in 1965 (Eliot Elisofon Field Collection, EEPA 1973-001, Eliot Elisofon Photographic Archives, National Museum of African Art, Smithsonian Institution).



Figure 119 Houses by the side of the Mahmoudeya canal in 1961 (Eliot Elisofon Field Collection, EEPA 1973-001, Eliot Elisofon Photographic Archives, National Museum of African Art, Smithsonian Institution).

4.2.3.3 – Concave courses

The walls provide an additional hint regarding the existence of at least one upper storey. The perimeter walls exhibited concave brick courses, a particularity often noted in mudbrick houses of the Roman and Late Roman period (Boak and Peterson 1931, plates XVII, XXXI, XXXIV, and XXXVI; Boak, Peterson and Haatveldt 1935, Plates VIII and IX; Davoli 1998; Hölscher 1954: 38), but which has been documented from the Saitic period onwards (Lehmann 2018: 72). In Room C, this was explicitly noted in the upper preserved parts of the walls, whereas it was less evident in the lower parts. Although bonded with the perimeter walls, the internal walls did not exhibit concave but rather squashed courses.

There is a generic interpretation that the concavity of courses was linked to concave bedding and that it was a deliberate building technique. It is critical to underline what is referred to when discussing concave walls. In general, most of the discussion is based on the architecture of massive enclosure walls, but then the discussion eventually encompasses also walls of Roman period houses. Nevertheless, there is a crucial difference: temple enclosure walls (at least from the New Kingdom onwards) were built in blocks of brickwork alternating between concave and convex or horizontal blocks (Kemp 2000: 91); they were also called undulating walls (Spencer 1979: 115). The so-called concave walls observable in domestic architecture, particularly in the Ptolemaic and Roman periods, do not include the convex counterparts.

Flinders Petrie (1938: 10–11) referred to the concave walls as pan-bedding, whereby the bed of the wall had a concave curve that forced the brick courses into a concave shape. Flinders Petrie described the concavity as not accidental with the purpose related to holding in the corner bricks. Wilson (1982: 7) also stated that the Third Intermediate and Late Period buildings excavated at Mendes had been purposefully constructed with a downward slope on each side so that the buildings' weight would be aimed towards the centre of the wall. The same was suggested for the buildings in Buto, where the concave-laid masonry would have counteracted edge tension in the corners (Hartung et al. 2003: 212). Kemp (2000: 91) discussed the concave bedding as 'very well-suited for overcoming structural problems' but did not appear to distinguish between undulating courses (the concave/convex contraposition, referred to as pan-bedding) and only concave courses. Instead, Kemp mentioned the Roman houses at Karanis as examples of the validity of concave bedding as a construction technique. D. Arnold (2003a: 35, 256) mentioned the undulating courses, not concave walls, of the houses from the 13th Dynasty, New Kingdom, and Ptolemaic period (Karanis and Soknopaiou Nesos), and called them 'wavy walls' due to how they appear when viewed from the front.[82] Following Flinders Petrie, Arnold also pointed out that the purpose of pan-bedding was to prevent the corners of buildings from

[82] The term 'wavy wall' has been used by Clarke and Engelbach (1930: 213) to refer to walls not built in a straight line but in alternating curves winding in and out. In this case, the waves are visible from a bird's eye perspective. Siegel (2017) presented a study on the development and function of wavy walls and refers to them as serpentine/sinusoidal walls.

breaking away. Mainstone and Spencer both praised the structural support allowed by the undulating walls to discharge the weight (Mainstone 2001: 177; Spencer 1979: 114–115).

There seems to be consensus on the utility of concave walls concerning Graeco-Roman houses. Concave courses and foundations were noted in the outer walls of Late Dynastic and Ptolemaic tower houses and continued in Roman times (Figure 120) (Clarke and Engelbach 1930: 211; Emery 2011: 6; Flossmann-Schütze 2014: 18; Herslund 2019b: 70; Marouard 2014: 117–118) and were deemed as a feature that aided the distribution of the house's load. Husselman (1979: 33) wrote about the Karanis Roman period houses that 'the outer courses of bricks in the outside walls were often laid in concave beds' and emphasised that this choice strengthened the walls and avoided vertical cracks, seemingly implying that it was one of the reasons why many houses survived and could be used in later levels. Marouard described it as a technique called 'à pans concaves'[83] where bricks were arranged in concave courses (Marouard 2012: 124, 130).



Figure 120 The reconstruction of Roman period houses at Soknopaiou Nesos. The houses were depicted with the characteristic sagging walls, which distort the windows (http://www.museopapirologico.eu/sok_sito.htm).

In addition to the technical usefulness, researchers have also considered the symbolic meaning of the undulating walls, particularly in the case of temple enclosure walls. There is a debate between researchers supporting the technical benefits of undulating walls and researchers considering that these walls' design was heavily influenced by ritual motives (Siegel 2017: 55). Pirelli presented a technical analysis of these kinds of walls and concluded that the benefits offered by undulating walls are not

[83] Concave sides technique (my translation).

greater than those of horizontal walls (Pirelli 1999: 77–8) and that the effort dedicated to their construction must have had other motivations, namely of religious/mythological nature (Pirelli 1999: 78–89).

Similar reservations regarding the technical benefits of concave walls can be advanced. Whether undulating courses do or do not provide solid structural support or benefit, it cannot be excluded that they were built to appear undulating. On the other hand, a concave wall might not be a voluntary execution but rather the result of a long-term process related to architectural and environmental factors. Pan-bedded brickwork was also observed on the Late Period tower houses at Tell el-Dab'a, but it was also remarked that not all houses were like that and that some had horizontal brick courses (Lehmann 2014: 59). Spencer (1979: 117) reckoned that the concave courses of vernacular buildings of the 1st to the 5th centuries CE were not due to any architectural necessity but rather a voluntary construction technique whose purpose had apparently been forgotten. Davoli reported that external wall facings, particularly for buildings dating between 50-250 CE, had concave brick courses (1998: 93); even so, Davoli also expressed uncertainty regarding choices such as the kind of mudbrick employed and whether the bricks should be laid in horizontal or concave courses, with buildings at Bakchias, Karanis, and Philadelphia exhibiting both styles (1998: 93, 140, 357). Even the terracotta models of Late Period to Roman houses show the variability, some displaying concave courses of bricks and others horizontal layers (some examples from the Petrie Museum of Egyptian Archaeology UCL are UC 33426, 33427, 50614, 50615, and 50582) (also noted by Husson 1983: 219).

I inquired about the purpose of concave building beddings and concave courses with four specialists: Elisa De Rossi, architect-engineer, Amanda Rivera Vidal (architect engineer specialised in earthen, vernacular, and historical architecture), Dr Marwa Dabaieh (architect and associate professor (Docent) at Malmo University), and Prof Charles Augarde (professor of civil engineering at Durham University). The responses indicated perplexity towards the application of concave courses as an intentional building technique. De Rossi considered the concavity as not planned but a result of subsidence, arguing that it would be logical to divert the weight of the walls towards the corners rather than the other way around (E. De Rossi 2020, personal communication, 26 September). Rivera Vidal advised that the concavity might be a deformation related to the ground's humidity (A. Rivera Vidal 2021, personal communication, 9 April). Dabaieh suggested that the concavity might result from soil settlement over time but advised me to consult a structural engineer (M. Dabaieh 2021, personal communication, 8 August). Augarde commented that he had not seen this type of concavity before; he described it as sagging and suggested that it could be a consequence of subsidence and creep combined (C Augarde 2021, personal communication, 5 October).

Given the occurrence of both horizontal and concave perimeter walls in the archaeological record, it is fair to assume that concave courses could have depended more on structural issues rather than a voluntary construction technique; in the case of the Egyptian tower houses, many have considered the load of the roof and the upper storeys as a cause. The theory that the concave foundation bases and

the concave courses would allow for lightening the load-weight from the corners of the building implies that the pressure is relieved from the corners but added to the central parts of the walls, thus creating an anomaly. Evidence from Karanis shows that wood and stone were used in the corners of buildings, a use that increased in the Roman period (Emery 2011: 6); Husselman (1979: 34–5) explained that these implementations were to protect corners and linked with the holding of doorways and window frames in place. It comes to mind whether fired brick and stone could have been applied to strengthen the corners (Ellis 1992: 23) to allow them to sustain the load better. Nevertheless, the application of wood and stone corner supports is related to reparations of coving, which is described by Fodde and Cooke (2013: 269) as a deterioration of the base and corners of earthen walls due to water saturation, the rise of soluble salts, and wind erosion, adding that coving is more likely to occur when a stone plinth does not support the wall.

The roof loads should be spread equally over the entire wall (McHenry 1984: 85) rather than be focused on a specific part. When openings are present in the wall, such as doorways and windows, the weight from the roof is diverted to the corners via features such as relieving arches (The Brick Industry Association (BIA) 1999). It is a solution also offered by Fathy for rural housing to overcome expensive alternatives (Fathy 1973: 221). Therefore, why should the walls be purposefully built in a manner that does not allow them to spread the weight of the building to the foundations in an equal manner? This anomaly is also reflected in the bending of the wooden lintels used for the windows, examples of which can be seen in photographs of Karanis houses (Figure 121). The wooden lintels are curved because of the stress of the load (A. Rivera Vidal 2021, personal communication, 9 April), and this could be the result of creep[84] to which wood is also susceptible (Dodge 1984: 28). 'The bending moment […] at any section is the transverse moment tending to cause bending […] in the plane of loading' (Figure 122) (Kumar 2003: 197). The bending force can particularly impact an opening in a wall over which stands a mass of masonry, as in the case of multi-storey buildings. Wooden lintels whose ends bend upwards display compression, and compression usually comes from above (Kumar 2003: 167).

[84] The continuous deformation of a material (esp. a metal) under stress (Oxford English Dictionary).

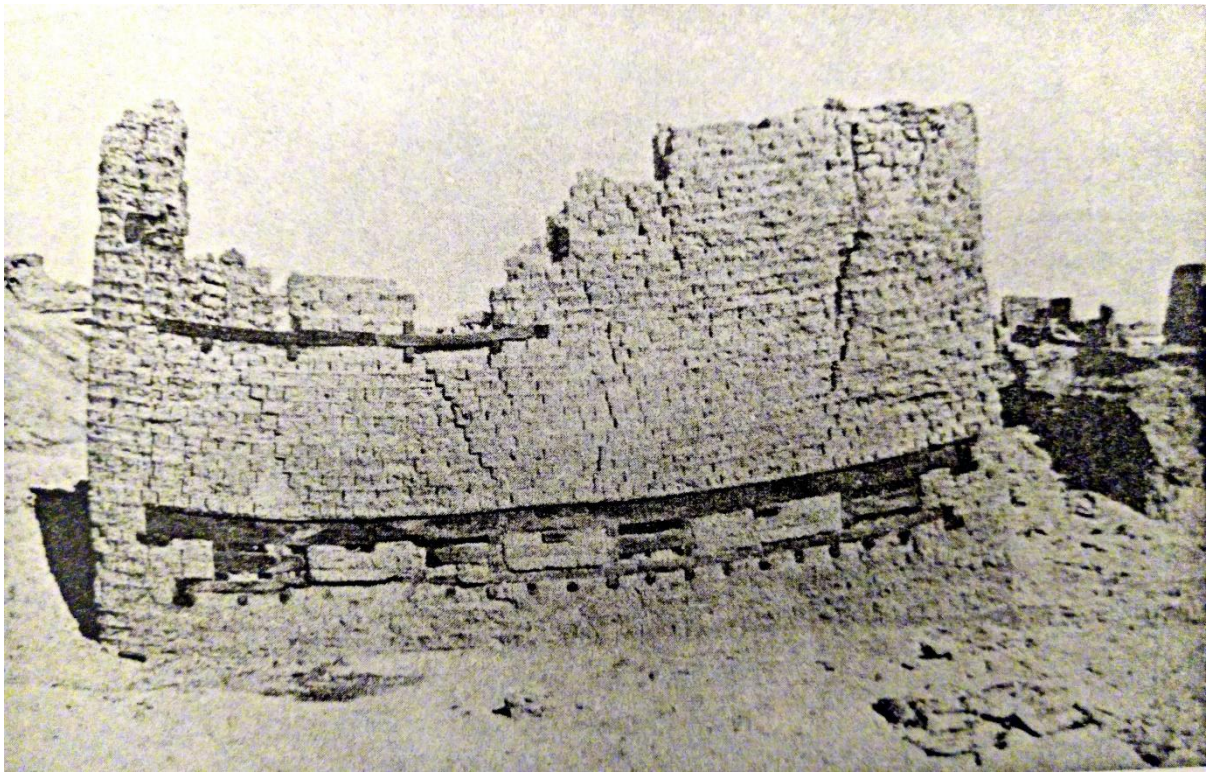


Figure 121 View of Karanis House C5043. The concave brick courses are visible with the compressed wooden window lintel (Husselman 1979, plate 13b).

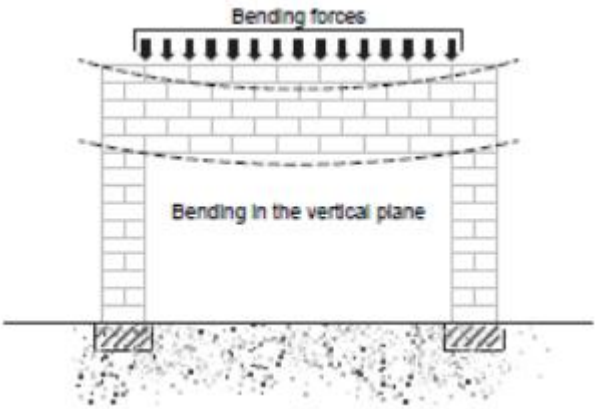


Figure 122 Depiction of bending force in the vertical pane (https://www.acsedu.co.uk/Info/Trades/Construction/Wall-Strength.aspx).

If the wooden lintels had been meant to be curved to adhere to the concavity of the courses, then even the internal floors would have had to follow this trend, which would have rendered them tilted and impractical (Figure 124 and Figure 125). Perhaps the walls' concavity was linked to the removal of mudbricks for windows and doorways; the bent wooden lintels indicate the considerable weight that was being sustained, which was not being diverted to the corners. An interesting case is offered by Karanis House C68 (Figure 123): the house exhibited concave brick courses, and the lintels of the door

and the lower floor's windows were bent under compression; while the windows of the upper preserved storey were not bent, they exhibited evidence of reparation with new bricks laying directly over the lintel. This example suggests that the roof's weight may have damaged the upper storey's window lintels and that the concaving occurred after the construction phase, probably in relation to the drying out of the bricks and the settling of the building over the ground.

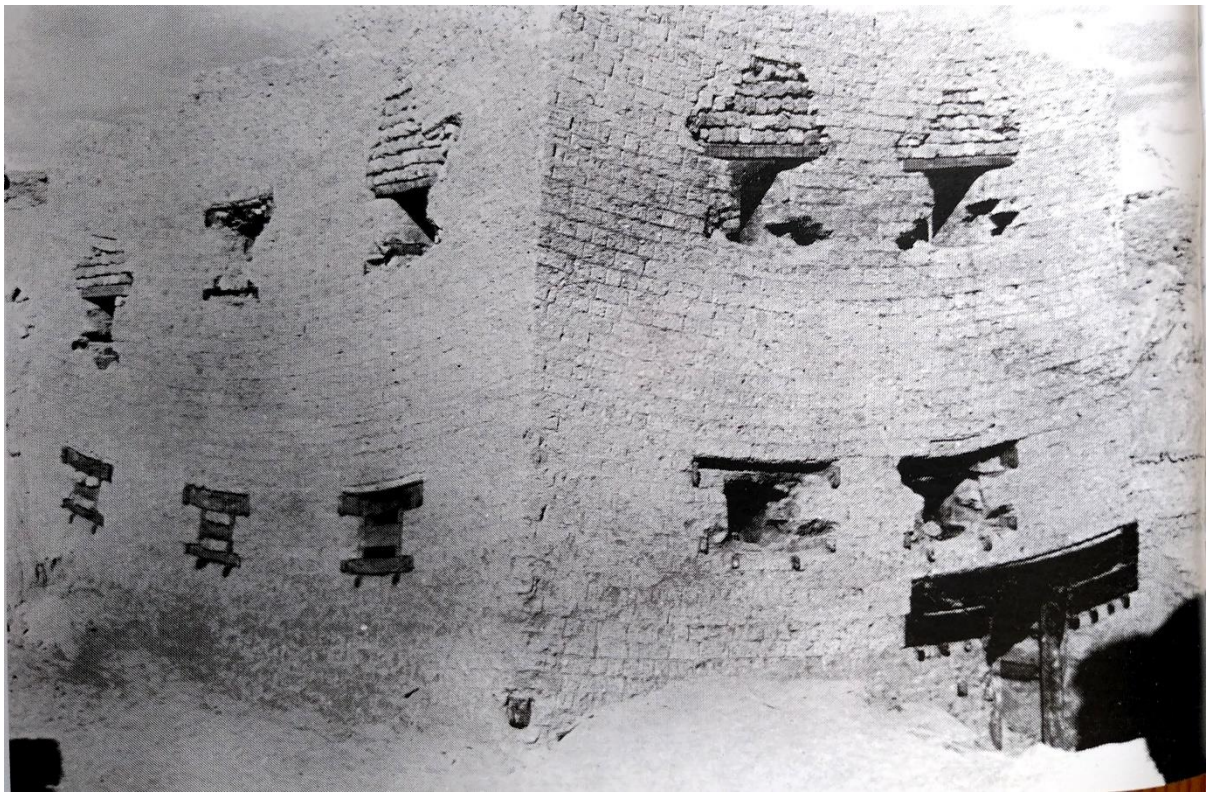


Figure 123 Karanis House C68: view of its western and southern walls (Husselman 1979, plate 12b).

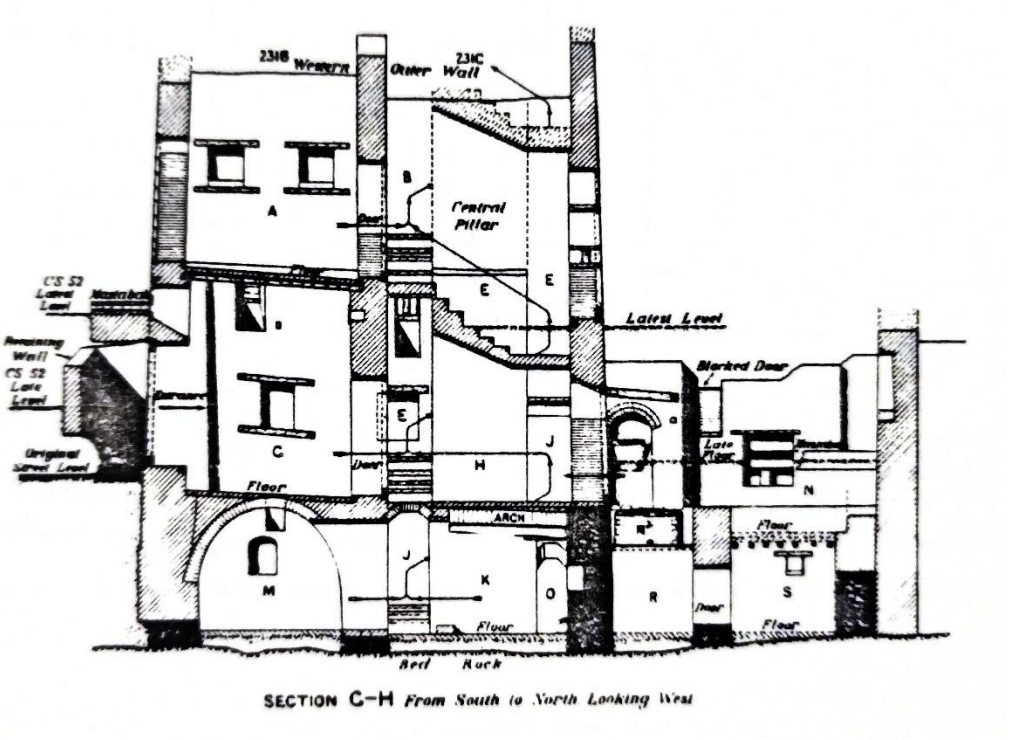


Figure 124 Elevation of Karanis House C56. The floor on the first floor is tilted in the same fashion as the windows (Husselman 1979, plan 39).

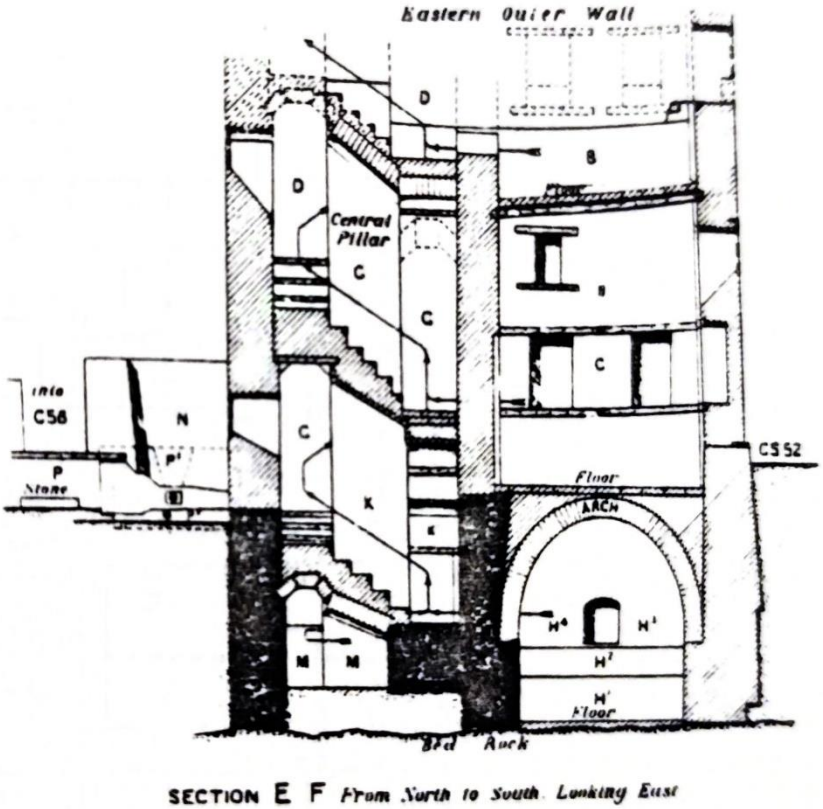


Figure 125 Elevation of Karanis House C62. The floor on the second floor is tilted (Husselman 1979, plan 41).

The concave wall phenomenon could be best described as sagging (Figure 126) and can result from creep and subsidence[85] combined (E. De Rossi 2020, personal communication, 26 September; C. Augarde 2021, personal communication, 5 October). Creep can have long-term effects such as permanent deformation due to gradual stretching. Mudbricks will creep over time due to their level of ductility (C. Augarde 2021, personal communication, 5 October). The role of the underlying topography is also a relevant factor. As a natural soil, alluvium falls into the category of collapsible soil, which "is susceptible to a large and sudden reduction in volume upon wetting" (Day 2001: 6.55). Even some houses that had been equipped with stone foundations (Lancaster and Ulrich 2013: 199), such as C50/51 and C62, exhibited concaveness, and it has been assumed that they had been structured that way since the stone foundations were concave (Figure 127); however, the underlying topography cannot be neglected: if the ground below the stone is weak, then subsidence will occur regardless of the supposedly sturdier stone foundation (C. Augarde 2021, personal communication, 5 October).



Figure 126 A depiction of hogging (convex) and sagging (concave) deformations in masonry walls (Burghignoli et al. 2013: 107, figure 11).

[85] The more or less gradual sinking or caving in of an area of ground due to geological forces, mining operations, etc.; (also) the sinking of a building or other structure into the ground (Oxford English Dictionary).

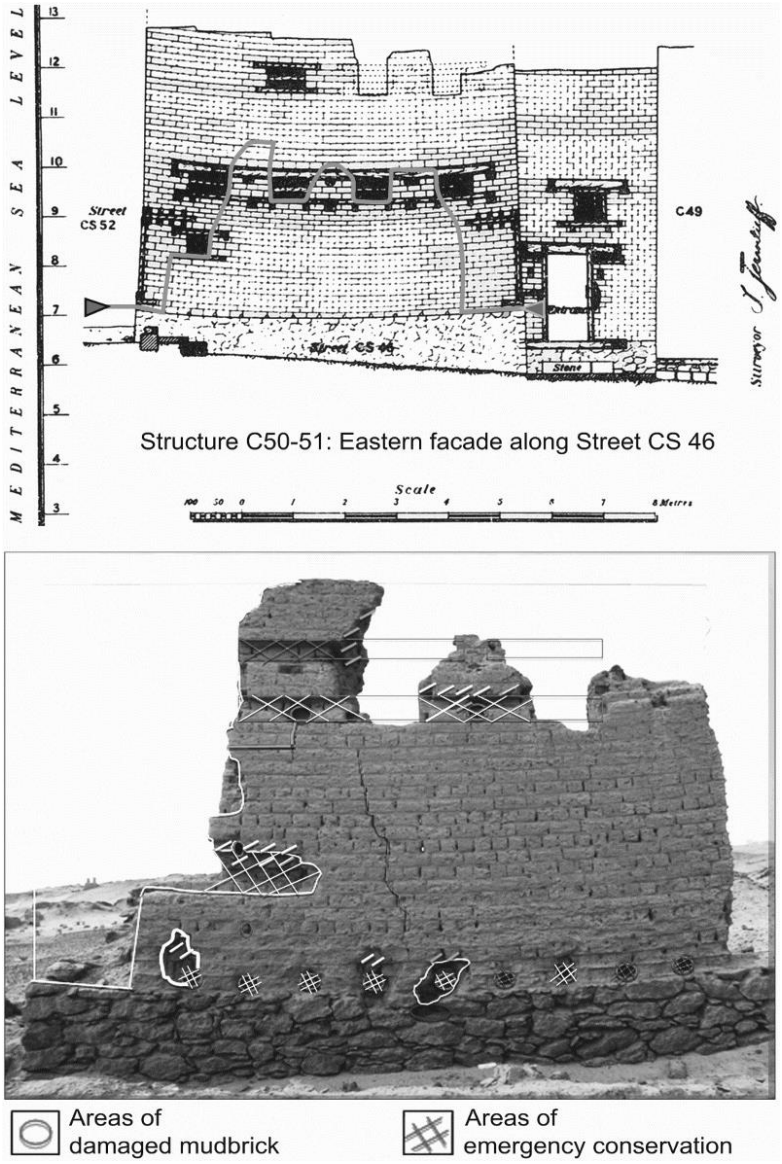


Figure 127 The remains of the eastern facade of house C50-51 at Karanis. This house had been equipped with a stone foundation which also presents concavity (Barnard et al. 2016: 97, figure 10).

The role of the underlying geology regarding building subsidence must be recognised.[86] Expansive (or swelling) soils are responsive to moisture content as they will decrease and increase in volume according to the water content; expansive soils depend on the mineral composition of their clay content and are usually indicated by a predominance of montmorillonite,[87] and they tend to occur in areas where clay accumulates —for instance, fluvial environments. Expansive issues can occur on the

[86] Regarding Karanis' ground surface, the site lies over a limestone ridge; however, Boak and Peterson noted that the central portion of the site was occupied 'by a mound of ruins which in places reached a height of over fourteen meters above the top of the ridge on which they rested' (Boak and Peterson 1931: 2–3). While this is a general statement, it is a useful reminder that the later houses at Karanis did not lie directly over the stone ridge but occupational fills.

[87] Definitions of montmorillonite: a soft clayey water-absorbent mineral that is a hydrous aluminum silicate (Merriam-Webster Dictionary); a monoclinic alumina-rich montmorillonoid containing some sodium and magnesium (Oxford English Dictionary).

primary deposits and even on the later sedimentary rocks (Costa and Baker 1981: 221–23). Soils with a considerable montmorillonite content have greater swelling properties (Elbeih and Soliman 2015: 832; Youssef 2008: 579). The Nilotic deposits exhibit a high amount of montmorillonite clay (Butzer 1997: 156–57). Costa and Baker (1981: 224–25) explained that swelling clays could damage wall foundations by generating either an edge lift or centre lift (also known as doming): the edge lift occurs when the edges undergo wetting (swelling) and the centre drying (shrinkage), whereas the reverse occurs for centre lift. They used an example from Boulder (Colorado, United States), where edge lift was caused by moisture concentration in the foundation periphery. 'This produces a differential uplift on spread footing foundations which causes walls to rotate inward, compressing doors, windows, and foundations' (Costa and Baker 1981: 224). Costa and Baker did not specify the construction material but added that wood-frame buildings would have been less sensitive to the shrink-swell influences. Nonetheless, the description of the edge lift corresponds to that of concave brick courses in mudbrick buildings in Egypt.

Sagging in adobe buildings is usually related to extreme roof loads and/or rising damp (Tiller and Look 2004: 52). Similar conclusions were reached for Building 3 at Çatalhöyük, a structure with walls that sagged in the middle (Figure 128, Figure 129, and Figure 131). This sagging was deemed to have been caused by the weight of the roof, which mainly lay on the central part of the walls (Stevanović 2012: 179–180). Concave courses were noted for all walls of Building 3 aside from the southern one, which lay over an earlier wall (Figure 130); it was inferred that the earlier wall must have provided the necessary support to avoid sagging (Stevanović 2012: 179–180).

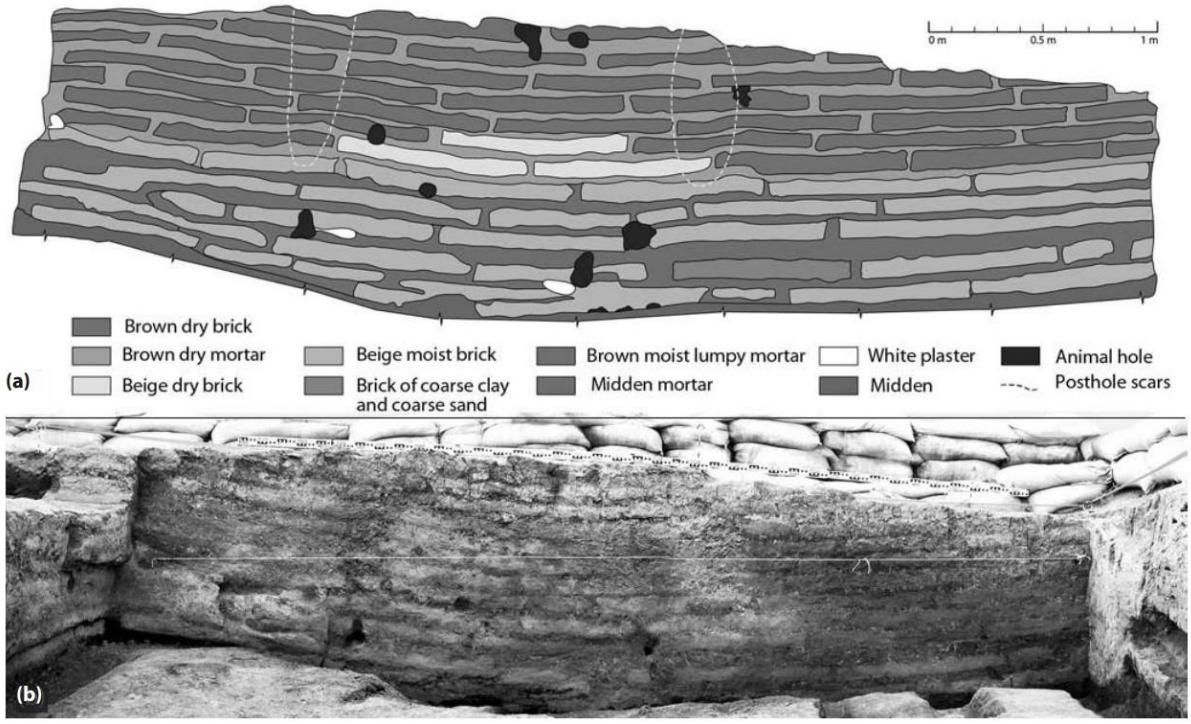


Figure 128 The northern wall of Building 3, Çatalhöyük (Stevanović 2012: 177, figure 6.2).

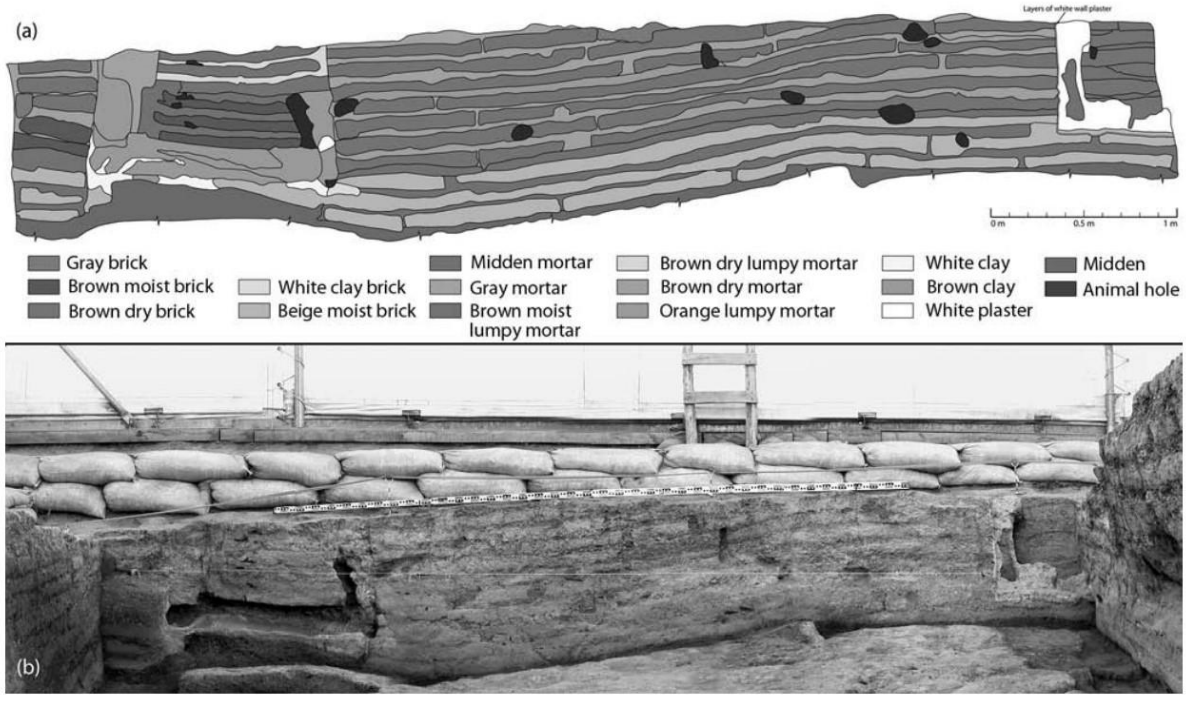


Figure 129 The eastern wall of Building 3, Çatalhöyük (Stevanović 2012: 177, figure 6.3).

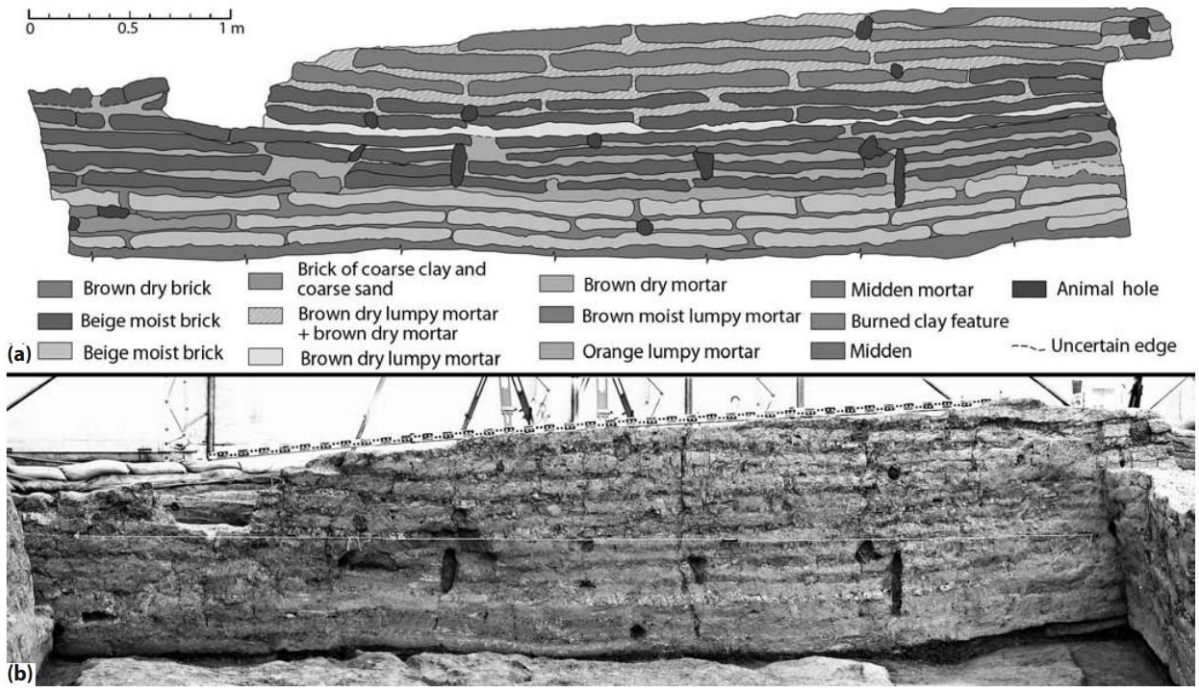


Figure 130 The southern wall of Building 3, Çatalhöyük (Stevanović 2012: 178, figure 6.4).

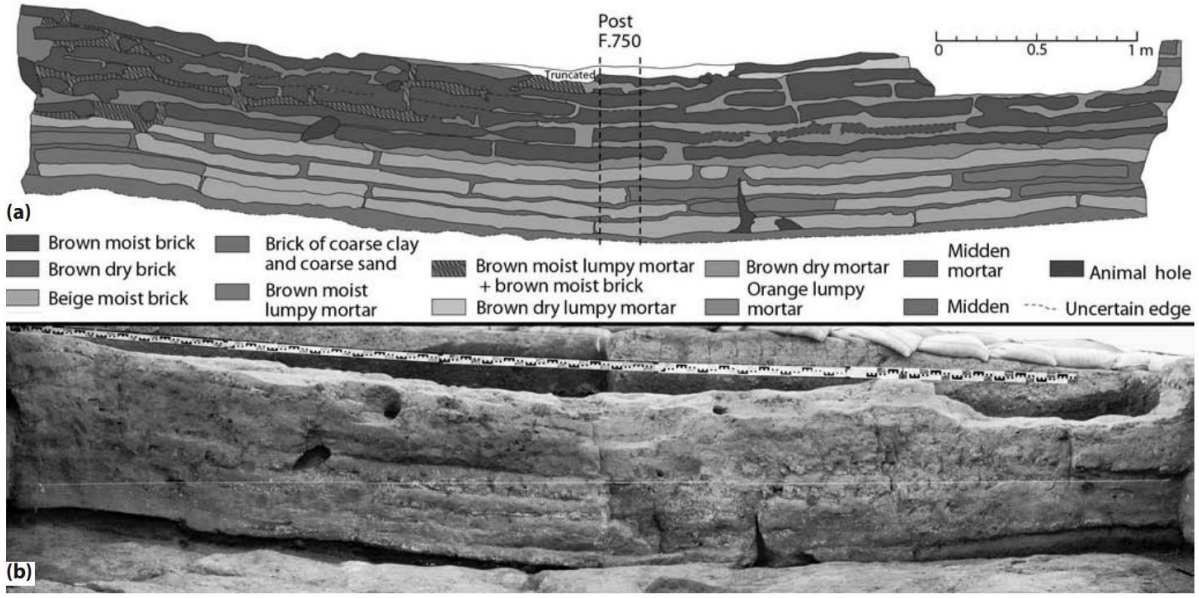


Figure 131 The western wall of Building 3, Çatalhöyük (Stevanović 2012: 178, figure 6.5).

The evidence from the Late Roman house at Kom al-Ahmer showed that the perimeter walls exhibited concave courses, whereas the internal walls had roughly horizontal brick courses that appeared compressed in certain instances. Figure 132 shows the profile drawings of the internal facades of the walls of Room A; the drawings allow to observe that the layering of the mudbrick courses was

different for each wall, some exhibiting concavity while others had either straight or slightly oblique courses.

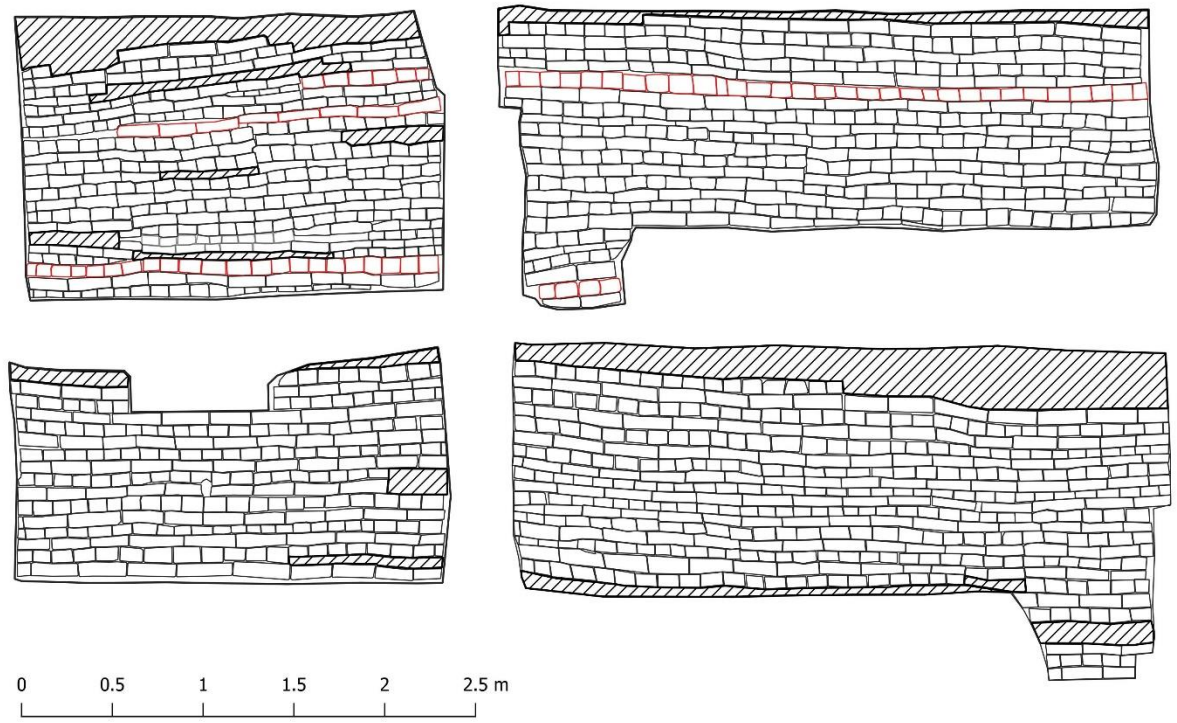


Figure 132 Profile drawing of the internal facades of the walls of Room A: F4048 (upper left), F4047 (upper right), F4049 (lower right), and F4143 (lower left). The walls express a different degree of concavity or none at all.

As previously mentioned, only two walls were exposed down to the lowest course. The examination of the southern wall of Room C (F4031) revealed that the eastern-most part of the wall foundations lay over the western-most part of the Roman Room's southern wall; this seems to have influenced the walls' settlement, supposedly because the earlier mudbrick wall provided a sturdier bearing surface than the alluvial grounds (Figure 133). A structural problem could have been generated from this placement as a small part of the wall received more support than the rest; this could have potentially influenced the concaveness of the courses, rather than it being a deliberate building technique. The preserved upper part of the wall denotes more concavity than the lower one, also visible outside. Despite the progressive battering, the sagging might be related to the weight of the upper storeys.

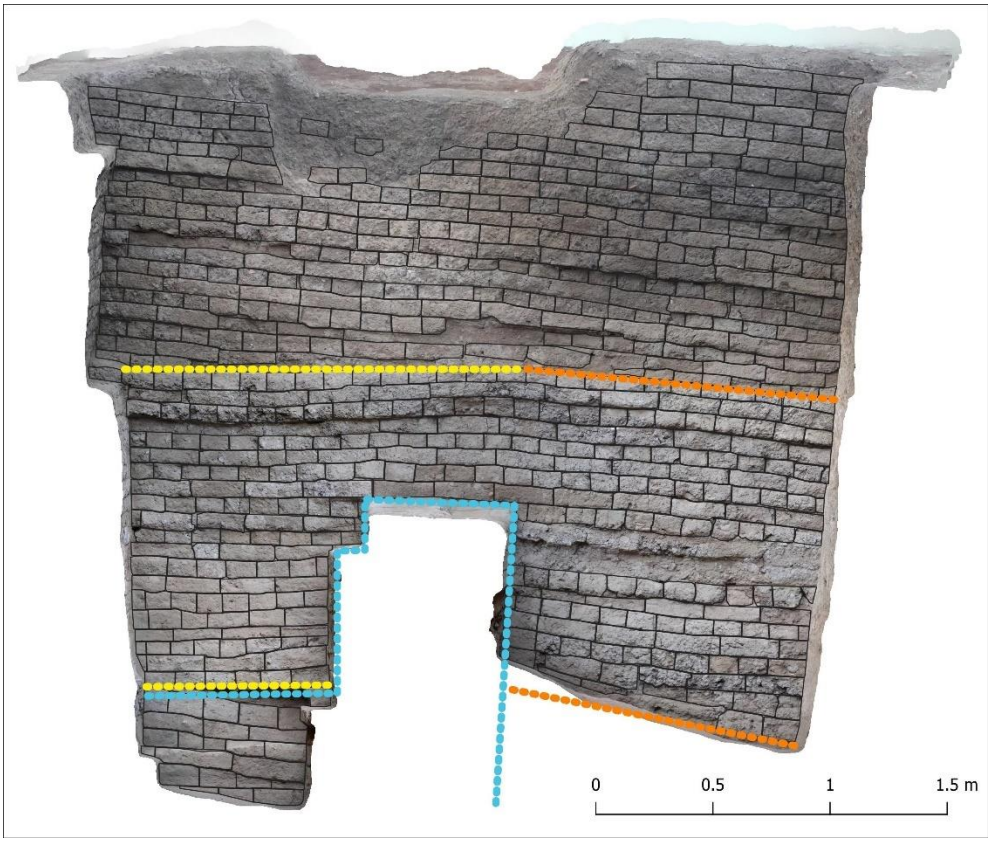


Figure 133 The internal profile of the southern wall of Room C (F4031). The blue lines indicate the position of the walls of the Roman Room; the yellow lines indicate the parts of the wall that are supported by the Roman Room's walls; the orange lines indicate the parts of the wall that are not supported by earlier walls.

A similar pattern can be noted in the opposite wall of the same room (F4036) (Figure 134); however, the support afforded by the earlier walls does not seem to have been sufficient as the brick courses began to tilt even in the part over the earlier wall. On the one hand, it can be supposed that this difference could depend on the width of the earlier walls, which is unknown and may not have extended to the entire width of the above wall. On the other hand, the exposed part of wall F4036 belongs to the building's superstructure, whereas the foundations were not reached except for the section visible in the cut left by the foundation trench. The superstructure has tended to show course concavity more evidently than the foundations.

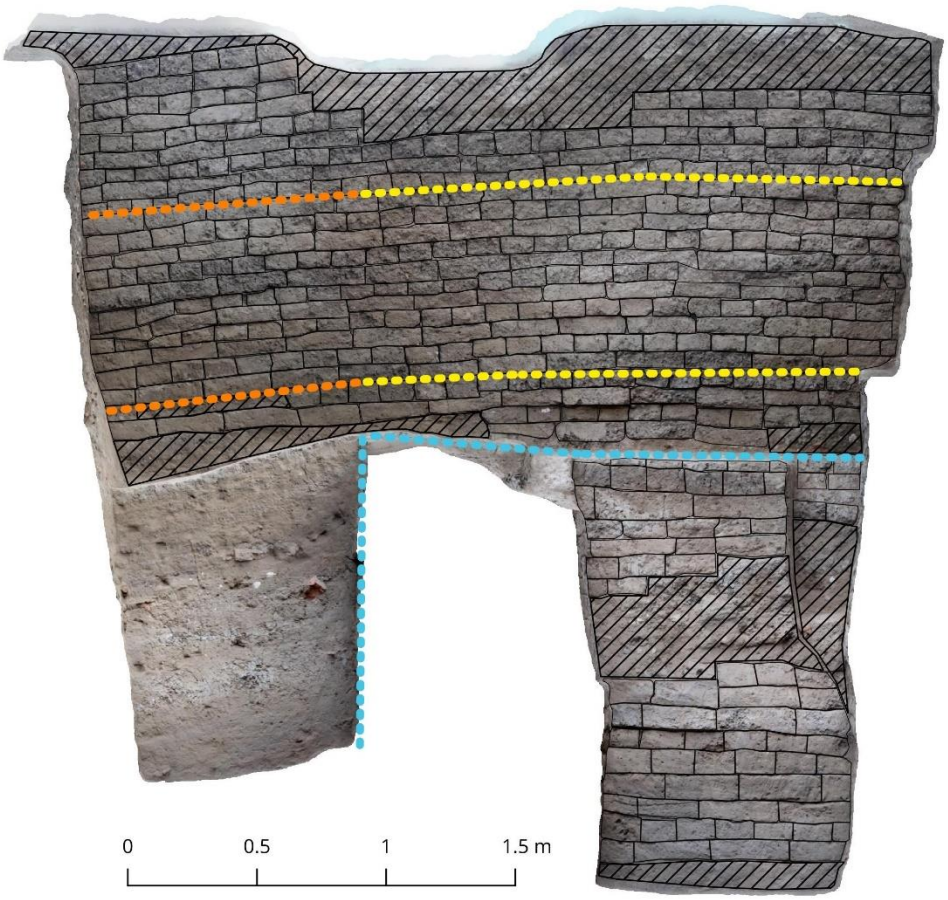


Figure 134 The internal profile of the northern wall of Room C (F4036). The blue lines indicate the position of the walls of the Roman Room; the yellow lines indicate the parts of the wall that are supported by the Roman Room's walls; the orange lines indicate the parts of the wall that are not supported by earlier walls.

The exposure of the eastern wall of Room C (F4032) showed how the wall had been placed within the foundation trench. As previously discussed, the builders did not opt to use the earlier building's walls as a base for the new one —as seen in Karanis— even though the wall width was slightly larger. The bricks had been laid directly over the ground without a detectable layer separating them from the clayey deposit (F4299) that the digging of the foundation trench had reached. No sand remains were noted (see *Section 4.2.2.3 – Foundation layer* regarding the use of sand in foundation trenches). The bricks had been laid in a header bond, not on a course of bricks-on-edge, which was often seen in buildings of earlier periods (Arnold 2003a: 35). The deposit onto which the bricks had been laid extended within the Roman room, meaning it had not been purposefully placed within the foundation trench. This deposit was not related to the construction of the trench but had only been reached by it.

The base of the wall exhibited what appeared to be an undulating foundation base. On closer inspection, it can be observed that the two deeper parts are not an entire course of bricks but seem to be fillings, perhaps in an attempt to render the base of the trench flat (Figure 135). The purpose of these fillings would seem to make the wall's foundation more uniform and level. It can be noted that the bed

of the trench is not fashioned in a concave shape but is roughly flat. The southern-most side (to the right of Figure 135) is tilting upwards, but that could be dependent on the placement of the southeastern corner of the house over the earlier structure's walls (as in the case of walls F4031 and F4036, discussed above). Therefore, the concavity of the courses would seem not to be influenced by the shape of the trench's bed; they instead seem to be an outcome of ground subsidence combined with bearing the weight of the building, especially visible in the section of the wall that formed part of the superstructure.

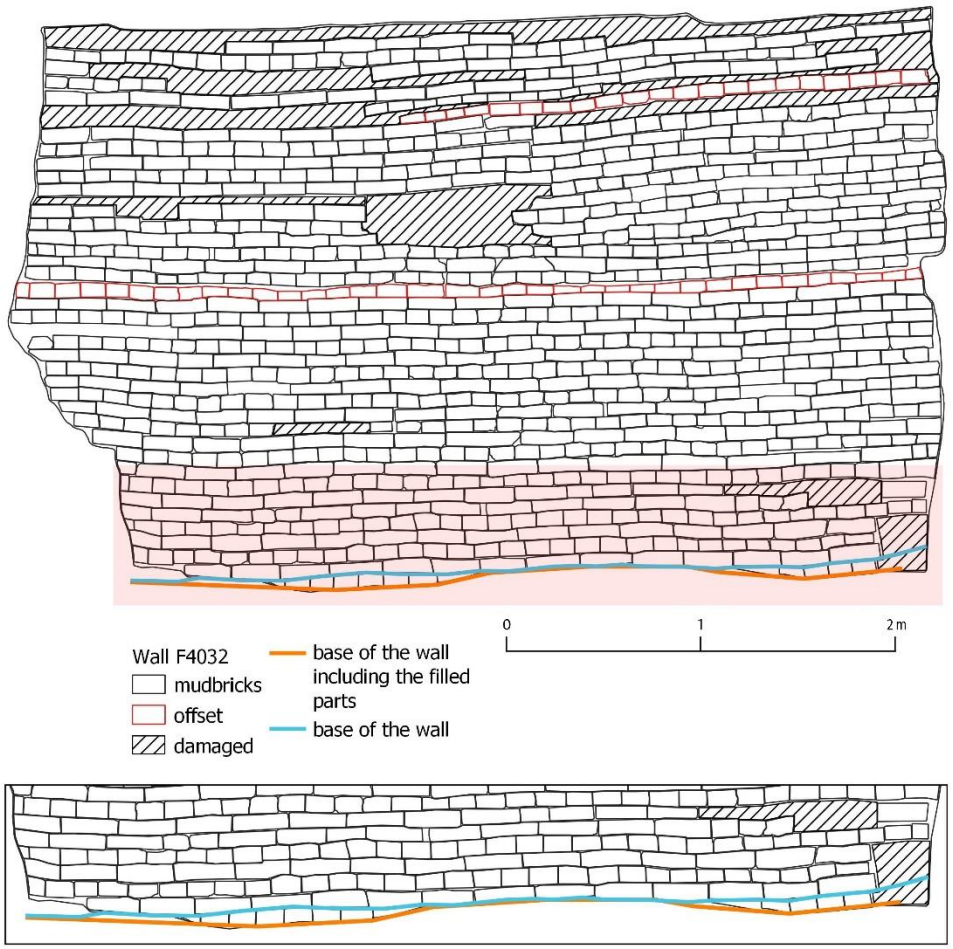


Figure 135 The profile drawing of the remains of the eastern wall of Room C (F4032). The image below shows the trend of the wall base (blue line) against the trend of the wall base that includes the parts filled with bricks (orange line).

4.2.3.4 – The walls of the Roman Room: an earlier case

The remains of the exposed part of the Roman Room have a rectangular form influenced by the house's walls, which cut through it. Only one corner of the room was reached; the remainder extended beyond the limits imposed by the house's walls, which do not allow to suggest the dimensions of this building yet. The western wall (F4233) was a side wall (given the outside space investigated west of the walls),

therefore a loadbearing wall. What could be inferred from the excavation was that the Roman Room was a ground floor room: the lower extent of the walls was not reached; however, the pits dug into the ground confirm that the room could not have been on an upper storey. It has been excluded that it had been a basement room due to the mud oven, which would not have been placed in a basement due to poor ventilation; a room on the ground floor with a door opening into the courtyard would have allowed for better air circulation.

Both the Roman Room and the house had been built in mudbrick; the former's mudbricks were slightly larger (on average 35 x 15 x 10 cm) than those of the house (27 x 15 x 8 cm), but both buildings exhibited the use of different kinds of mudbricks in terms of clay, sand, and silt ratios (Figure 139). The decrease in painted plaster fragments in the Roman Room could imply that the internal façades of the walls had been covered in a protective layer of mud mortar and no plaster. Only the western wall of the room presented offsets, both on the internal and external façade; it exhibited relatively straight brick courses on its upper part, whereas the lower part, indicated by the offsets, had 'oblique,' possibly concave courses; they progressively increased and decreased in elevation, the internal one rising in elevation from south to north, whereas the external one reducing in elevation from south to north (Figure 136). This disparity was also observed on the southern wall (F4031) of the Late Roman house, where the courses of the lower portion of the wall had a different trend than those of the upper portion (see Figure 133).

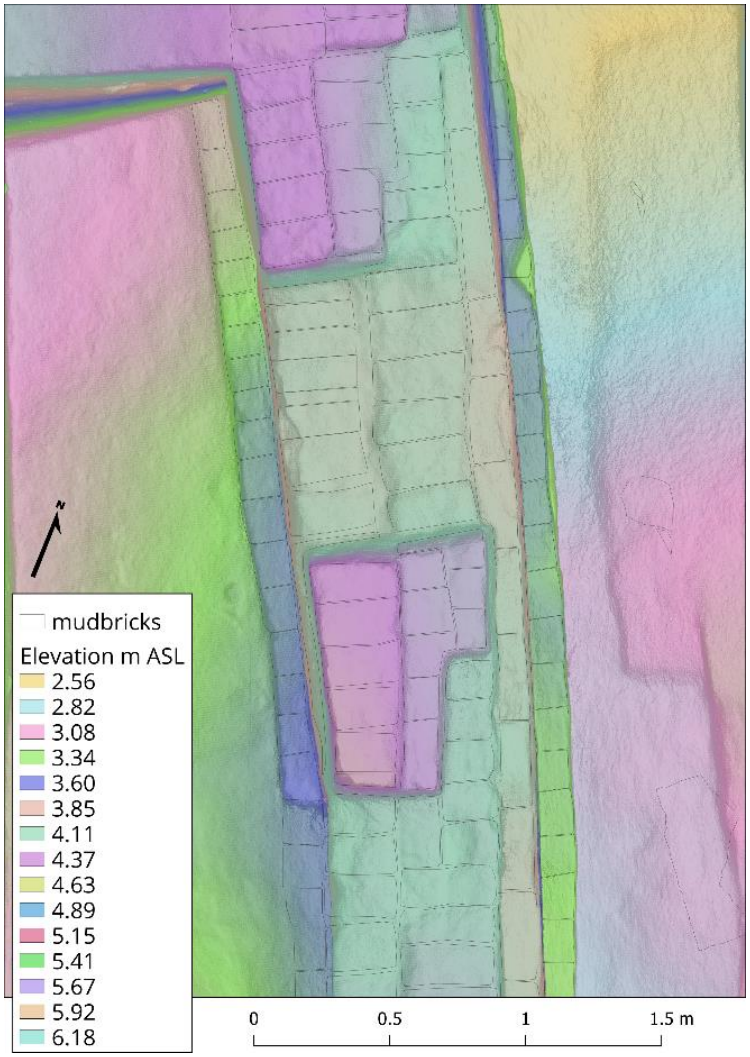
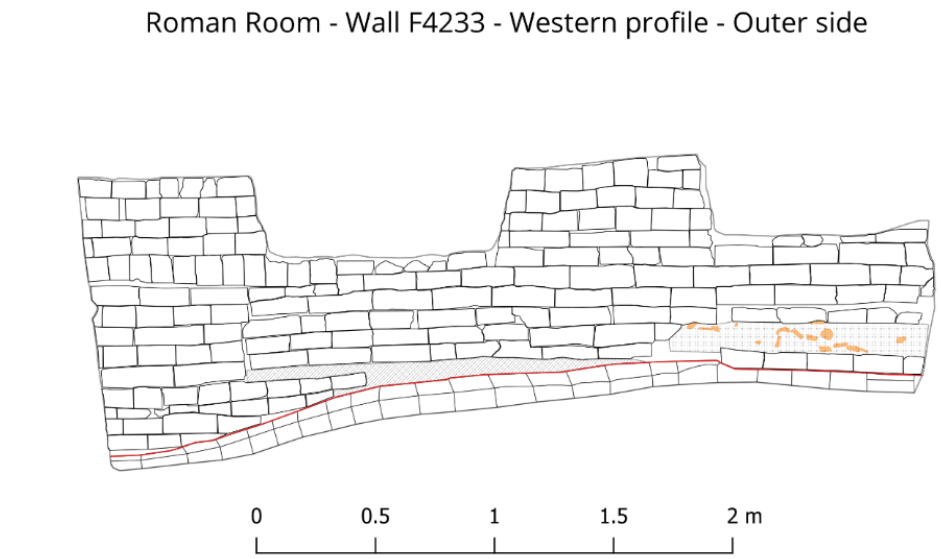


Figure 136 Orthophoto of the Roman Room's western wall (F4233) with the superimposed DEM (digital elevation model) indicating the shifts in elevation.

In terms of the 'concaveness' of brick courses, this wall allows us to observe the situation on both sides, something that has not been possible so far with the walls of the Late Roman house: the drawings denote inconsistency between the two sides, with the supposed concaveness increasing and decreasing in opposite directions (Figure 137). To illustrate this better, the drawn outlines of the two walls, with the offset indicated in red, were juxtaposed, with the western profile flipped to create the illusion that the viewer is observing through the wall while standing in front of the easter (internal) profile (Figure 138).



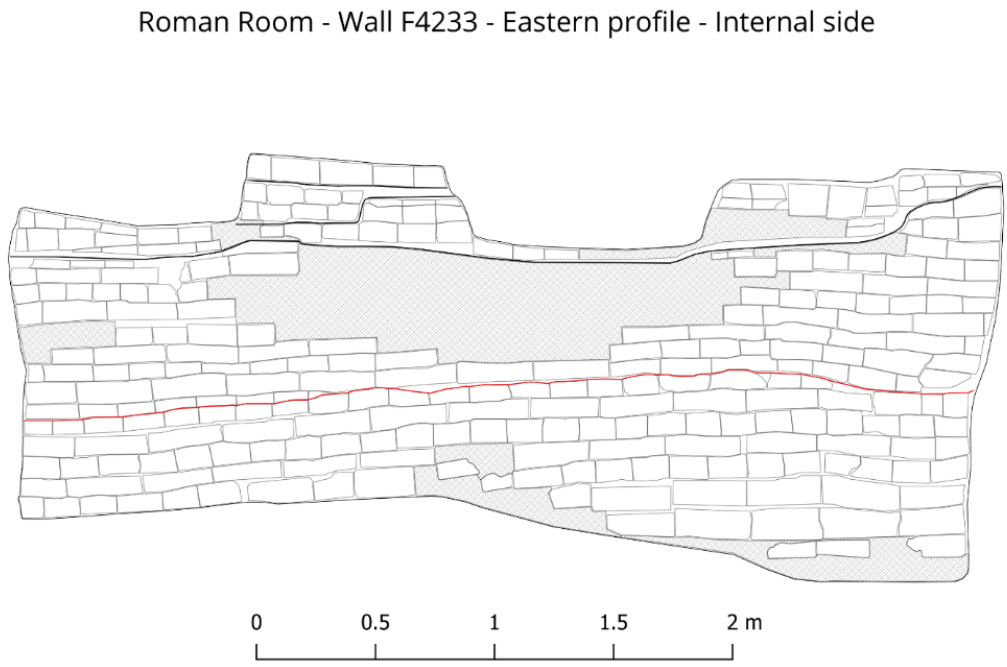


Figure 137 Profile drawing of wall F4233 of the Roman Room. The red lines indicate the offsets, the grey areas show parts of the wall where mudbricks were not distinguishable, and the orange spots refer to pottery sherds contained within a soil fill.

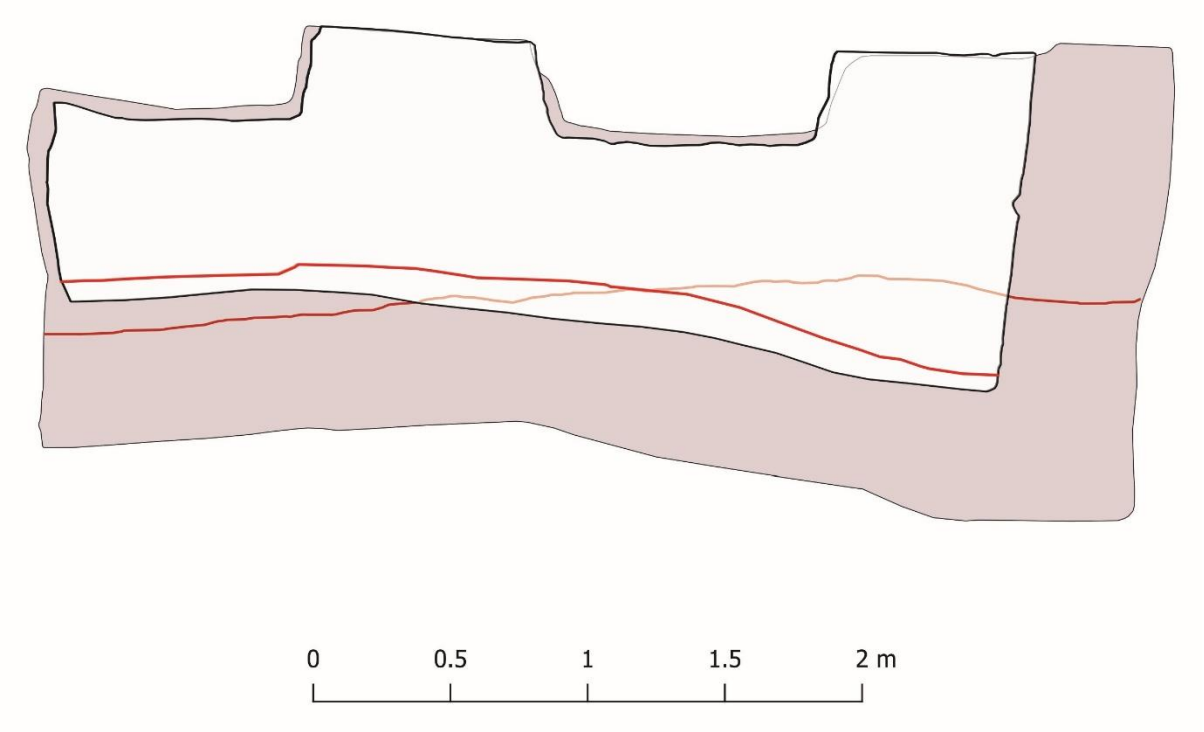


Figure 138 Profile view of the drawing of wall F4233, facing the inner side (the eastern profile).

The red lines indicate the offsets on both sides of the wall. They do not have the same elevation in corresponding instances; instead, they exhibit similar elevations at different instances. Assuming that the offsets would have shared the same course of bricks, which is suggested by the fact that they do have similar elevations (compare the northern part of the inner side of the wall and the southern part of the outer side of the wall), the course appears tilted in different directions along the wall, meaning that the course is not preserved as lying straight. The sway of the offset can be linked to the argument of the concave walls. The brick courses on the inner side of wall F4233 appear to trend towards concaveness; even so, the courses on the external side have a horizontal trend despite being part of the same wall. What can be seen in the courses of wall F4245, which bonded at a corner with wall F4233, is that they had horizontal layering.

The lowest courses of this wall were not reached, which affects the conclusions that can be advanced. Nevertheless, at least for wall F4233, it does not seem that the way the courses are preserved was how they had been intended to be laid, but it seems to be an involuntary outcome of subsidence. The outer side of the wall presents an instance where a part of it had been intentionally filled with a deposit of soil mixed with pottery sherds (see Figure 139), possibly as a solution for an issue with the mudbricks.



Figure 139 View of the outer facade of wall F4233; the possible consolidation of pottery and soil fill is visible to the right. Mudbricks of different soil compositions can be noted on the wall. The same can be observed for the house's walls, visible in the background.

4.2.3.5 – Conclusions

The information presented in this section shows that the concave courses of domestic structures, specifically those of the Ptolemaic and Roman periods, were not part of an intentional construction technique but the result of the architecture settling and reaction to the environment, presumably a process that occurred after some years. The data recorded from the case study house showed that the house's foundations had not been laid in a concave bed and that what prompted the mudbrick courses to adopt a concave shape was the settling in place of the building, possibly reacting to the swelling clay soils of the floodplain. Subsidence in clay-rich subsoil can be caused by an increase in the presence of water. Costa and Baker (1981) refer to the rainy season as an example. In the Delta, rain occurred more often than in the rest of the country (see *Section 2.2 – A wetland environment between the coast and the desert*), but the cycle of the annual inundation would have increased and then decreased the ground-water level in the lands along the river's course.

Despite the abnormality, it must be noted that the stability of the buildings may not have been at risk precisely due to the nature of the mudbricks, whose high compressive strength combined with low tensile strength yields a moderate shear strength, which makes them responsive to stimuli such as

stress, tensions, subsidence, and ground movement over time (McHenry 1984: 170–76). Tensile strength improves with the inclusion of straw in the clay mix (Yegül and Favro 2019: 135). Thus, although the building material suffered from concaving, it could also structurally withstand it, at least for some time (Figure 140).



Figure 140 The 3D reconstruction of Karanis House C45 was depicted with straight rather than concave brick courses (Wendrich, Simpson and Elgewely 2014: 236, figure 5). Presumably, this is how a house would have looked like just after construction.

4.2.4 – Floors

4.2.4.1 – Basement floor

The two floors identified within the house (and the other buildings) were all beaten earth surfaces. The marble and limestone slab fragments seem to have been used for fixtures rather than paving.[88] The floors' elevations were recorded following their contours and corners, and the average was calculated. These numbers were compiled in Table 35 to assess possible similarities.

[88] The walking surfaces identified within the Roman room were of disparate materials, including mud and earth as well as, perhaps, marble, as marble slab fragments from the Roman Room were found in situ.

Table 35 The elevation of the different levels identified as floors or surfaces within the investigated buildings and contexts (expanded version of Table 11.20 in Marchiori 2019 p.259). The different colours indicate similar levels.

Structure	Room	Context	Average elevation (m ASL)
House	A	Coin dispersal (78 coins) 'coin floor'	Between 5.899 and 5.686 (0.213m)
House	A	Fired brick dispersal	4.700
House	A	The lowest level reached in room A	4. 576
House	B	Coin dispersal (182 coins) 'coin floor'	Between 5.981 and 5.644 (0.337m)
House	B	Levelling layer 4074	4.410
House	Under Room B	Possible surface 4081	4.100
House	C	Possible surface F4217	5.730
House	C	Possible surface F4220	5.187
House	C	Levelling layer F4229	4.389
House	staircase	surface F4140	4.914
House	staircase	surface F4141	4.932
House	staircase	F4142, average elevation of lower step	5.148
House	staircase	F4142, average elevation of higher step	5.367
Amphorae Storage Building	B	Floor	4.800
Amphorae Storage Building	C	Floor	5.400
Amphorae Storage Building	D	Floor	5.200
Amphorae Storage Building	E	Floor	5.100
Amphorae Storage Building	F	Floor	5.080
/	/	Street	5.520

Beaten earth surfaces associated with the house's foundations were identified in Rooms B and C but not in Room A.[89] They functioned as the levelling layer prepared for the construction of the house and the floors of the basement rooms. They stand 1.11 and 1.13 m below the street level and 1.54 and 1.76 m below the average top preserved elevation of their surrounding walls.[90] As seen in examples from the Fayum sites and at Amheida House B2 (Boozer 2015a: 172–173), the street levels were continually rising, which meant that there was no necessary commonality between the levels of the storeys, those of the streets, and the other buildings.[91] When the street level rose, the buildings' ground floors would become basements or cellars. Papyrological evidence states that the lowest storey of the domestic buildings in Egypt (dating back between the 1st and 3rd centuries CE) would have been a cella (*kellios*) (Ellis 2000: 100; Polci 2003: 100). I reckon that these rooms would have been intended as basement rooms form the beginning in the case of those buildings that required deep foundations.

The basement or cellar rooms investigated at the Fayum sites were devoid of windows and doors. They could be accessed via stairs; their ceilings were barrel-vaulted or supported by wooden beams and occasionally a canopy (Davoli 1998: 140) (Figure 141). Ground floor rooms of houses at Elephantine almost all had this ceiling type (Arnold 2003b: 162). The case study house had no openings through its walls (at least the exposed ones), and no archaeological evidence of the ceiling survived. It

[89] The excavation reached an average depth of 4.576 m ASL, roughly 20 cm higher than the other rooms' surfaces' elevation.
[90] Average elevation of the wall remains of room B: 5.953 m ASL; average elevation of remains of room C, top elevation of remains of walls: 6.150 m ASL; average elevation of the wall remains of room A: 5.865 m ASL.
[91] The Third Building provides an example of rising beaten earth floors within a room (see *Section 3.3.9 – The Third Building*).

cannot be stated with certainty whether the ceiling would have been barrel-vaulted or flat. F. Arnold (2003b: 164, figure 106) indicated a variety of wall vault supports, none of which were detected within the case study house (Figure 142). The offsets could have served the purpose, but their absence from the internal walls negates this possibility. Either the vault supports had been removed or the rooms did not bear a barrel vault ceiling; Djeme houses had several examples of basement rooms with vaulted and flat ceilings (Hölscher 1954, Plates 41, 42, 43, and 44). Comparisons from Djeme also denote that some cellars were not connected to stairways, which led the investigators to assume the existence of hatches (an example is Coptic House 8) (Hölscher 1954: 49 and plate 41), as seen in the vaults of Houses 34 and 53 (Hölscher 1954: 46). A similar inference was deduced for houses E107 and E109 at Karanis (Campbell 1974: 113); trap doors were common both at Karanis and Djeme and Edfu (Figure 143) (Campbell 1974: 128).



Figure 141 View of the vaulted chamber E in Karanis House B3 of area G (Boak and Peterson 1931, plate XVIII, figure 35).

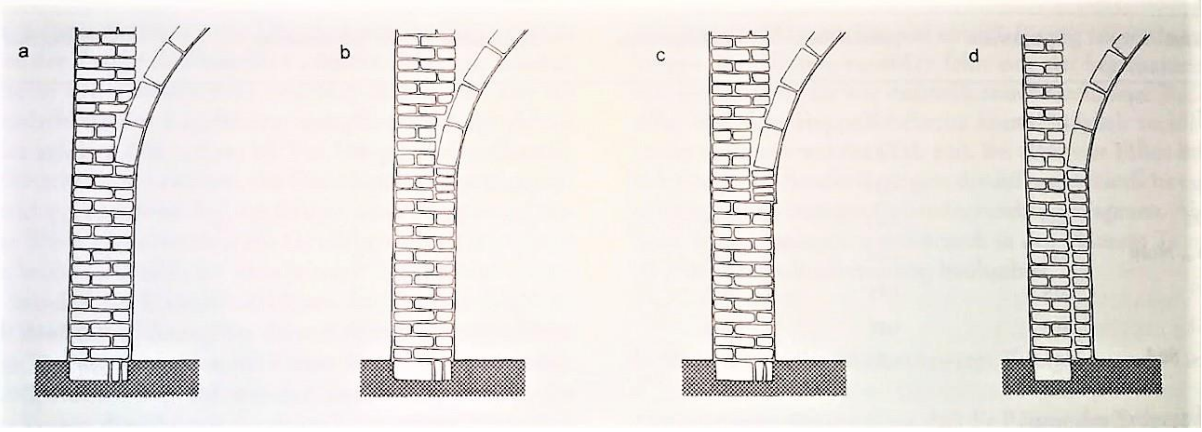


Figure 142 Four types of vault support were recorded at Elephantine (Arnold 2003b: 164, figure 106).



Figure 143 Karanis, a wooden trap door leading into chamber II 201 V (Boak, Peterson and Haatveldt 1935, plate V, figure 9).

Therefore, the architectural remains of the rooms allow the deduction that they were basement rooms. The existence of the possible 'coin floor' (see the following section) would indicate that the depth/height of the basement rooms could have reached between 1.28 and 1.57 m (Room A, using as reference the elevation of F4074 in Room B) and 1.23 and 1.49 m (Room B), though it is more probable that they were higher as the coin floor could have been part of a subphase of use of the house that did

not contemplate the existence of the basements. That being said, it is unclear whether the ceilings would have been flat or vaulted. The latter were often used for basements, but examples of the former have also been noted in the Fayum houses (Davoli 1998: 140; Gazda and Wilfong 2004: 23). Due to the absence of wall vault support, the ceilings of these basements may have likely been flat and built with organic materials other than mudbricks (see Appendix to Chapter 4, Architectural survey, Other).

4.2.4.2 – The 'coin floor'

In terms of quantity, one of the most significant categories of finds retrieved from the excavation unit has been bronze coins. This unit yielded one thousand and thirty-four bronze coins between 2014 and 2019 (for information on the coin type, dating, and mint see list in Appendix to Chapter 3 and 4, List of coins).[92] This section will look at the coin finds by considering the additional information yielded by analysing their distribution pattern. The coins' dispersal pattern within the unit and specifically inside the house's rooms suggested the existence of a floor associated with the house's ground level: it has been termed 'coin floor.'

Most of the coins (950) dated to the 4th and 5th centuries CE (Asolati and Crisafulli 2019: 14).[93] The coins were not scattered at one specific moment but became embedded within the rooms' layers throughout time. It is unlikely that the scatter could have resulted from the demolition of the house; the deposits that contained them did not include building debris. The 840 coins found in situ were registered with the total station. Data (ID numbers, the geographical coordinates, elevation, and dating) for each coin was collated in an excel spreadsheet; this was saved as a text file and imported into QGIS to create a vector point shapefile. The position of the coins could then be visualised and analysed. The GIS platform allowed me to explore the scatter pattern (Figure 144).

Cash was widely used in the Roman and Late Roman periods (Rathbone 2007: 715).[94] It is not uncommon to recover large numbers of coins within domestic contexts. At the site of Ismant el-Kharab (ancient Kellis), in the Dakhleh Oasis in Egypt, numerous coins were recovered from the rooms of House 3 (up to 50 specimens in one room in particular) (Alston 2001: 105).[95] Jars and bags filled with coins dating between the 3rd and 5th centuries CE were found in the Roman strata within the houses of Djeme in Lower Egypt (Hölscher and Nelson 1931: 51). At the site of Ehnasya, in Middle Egypt on the Nile's western bank, a high number of coins was retrieved from House K (this house dated to 250 CE);

[92] The finds retrieved from seasons 2012-2016 were published by Asolati and Crisafulli (2019: 1–60), whereas those of the 2017, 2018, and 2019 seasons are in course of publication.
[93] 16 coins dated to the 3rd century CE, 19 to the 2nd century CE, 3 to the 1st century CE, and 16 to the centuries BCE; other coin specimens were too mineralised to provide dating information.
[94] 'Villagers paid some taxes in cash, rented some land or accommodation for cash, laboured for cash, bought goods, materials, and foodstuffs for cash, and often took out small loans, or sold crops in advance, to meet cash-flow problems.'
[95] 'The pattern of coin loss in the rooms was irregular with three rooms having fifty or more losses while two rooms (3 and 5) had fewer than five coins discovered in them, which suggests that the rooms had rather different functions' (Alston 2001: 105, referring to Kellis House 3).

researchers associated them with the work of the owner, who was an ironmonger (Flinders Petrie 1905: 26). Several coin hoards were identified at Karanis (Christiansen 2004; Ford 2000; Haatvedt and Petersen 1964; Noeske 2001). Gazda and Wilfong (2004: x) mentioned that over 26,000 coins were retrieved from Karanis House C401/B501. The coins were found in the underground rooms, kept in jars and cloth bags. The house was named 'House of the Banker.'

In Kourion, Cyprus, the non-elite 'earthquake house' exhibited a similar pattern of coin loss which was described as random with no central point of origin; some rooms yielded between 57 to 170 coins (Costello 2014: 88).[96] The scatter was associated with the house's collapse (due to an earthquake). A coin scatter was also recorded from the ruins of the Patrician House in Meiron: 460 coins were collected in total, mostly dating to the 4th century CE (Meyers, Strange and Meyers 1981: 51).[97] The finding of many coins led the researchers to think it was an elite house.

The collection of coins from the case study house cannot be termed a hoard as they were not found accumulated as a group in a specific storage space but rather as stray finds, albeit in the same contexts, as they were not physically touching each other (Soto Marín 2018: 31–2).

[96] '[…] suggesting that they were not contained in a vessel located in the room, but probably fell from an upper floor (Costello 2014: 88).

[97] The finding of 63 coins scattered in one room led the researchers to think that the coins had been stored on the upper floor, forgotten, and scattered when the storey collapsed (Meyers, Strange and Meyers 1981: 54).



Figure 144 The coin scatter distribution within the excavation unit. The coloured dots represent the coins; each colour indicates the dating information.

The plan (Figure 144) indicates a higher degree of clustering within Rooms A and B, but coins are present within all the investigated buildings and the outside areas. Since a two-dimensional view biases the viewer's understanding of the elevations, the coin scatter was explored three-dimensionally using the QGIS plug-in Qgis2threejs (Asolati, Kenawi and Marchiori 2018: 142–3). Looking at the coin scatter from different perspectives allowed the creation of a visual impression of the distribution. Figure 145 shows the difference in elevation and scattering within the contexts of the area. The scatter slopes from north to south, similar to the modern ground of that part of the site. The coins within the latest layers in Rooms A and B of the Late Roman house were found within a vertical span of 21.3 cm and 33.7 cm, respectively; they were interpreted as the remains of a possible floor level that had not been identified during the excavation or was not preserved (Marchiori 2019: 259).

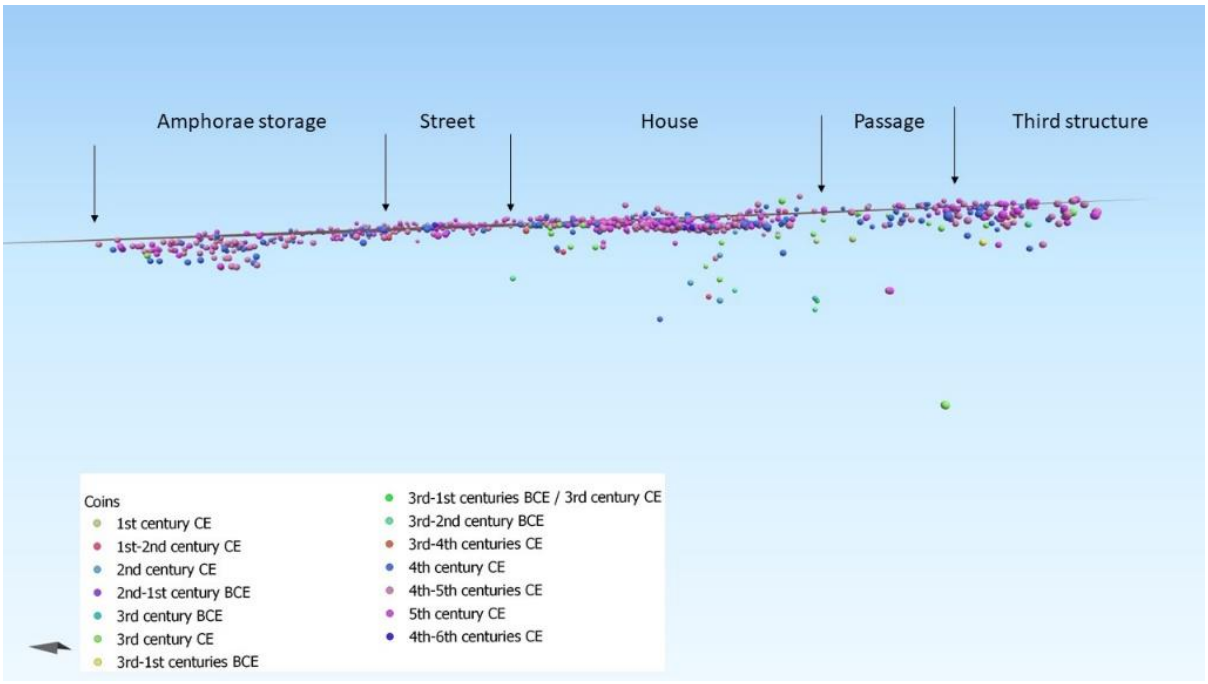


Figure 145 The three-dimensional view shows the difference in elevation and scattering within the area's contexts (the coin at the lower elevations were detected within Rooms B and C and the possible *sebakheen* pit).

The coins' geospatial data combined with the dating information were statistically analysed to understand further the distribution's nature. The analyses were run in QGIS using pre-defined functions, specific plug-ins, and enhancing or modifying the shapefile's appearance.

When a K-means function was run based on each coin's spatial location, the function subdivided the coins into a given number of clusters that can be input by the user (the function is located in the QGIS Processing Toolbox, under Vector Analysis). The K-means function groups the coins in clusters based on the nearest mean (Conolly and Lake, 2006, pp. 170–171). In this case, the function was attempted with 5, 7, and 10 clusters, respectively. The function divided the coins into clusters

corresponding to the activity areas identified in the excavation: the rooms and the outside space. This result highlights the relationship between the coin distribution and the architectural features, particularly the Late Roman house and the amphorae storage building, thus affirming the link between the scatter and the use of the buildings (Figure 146).

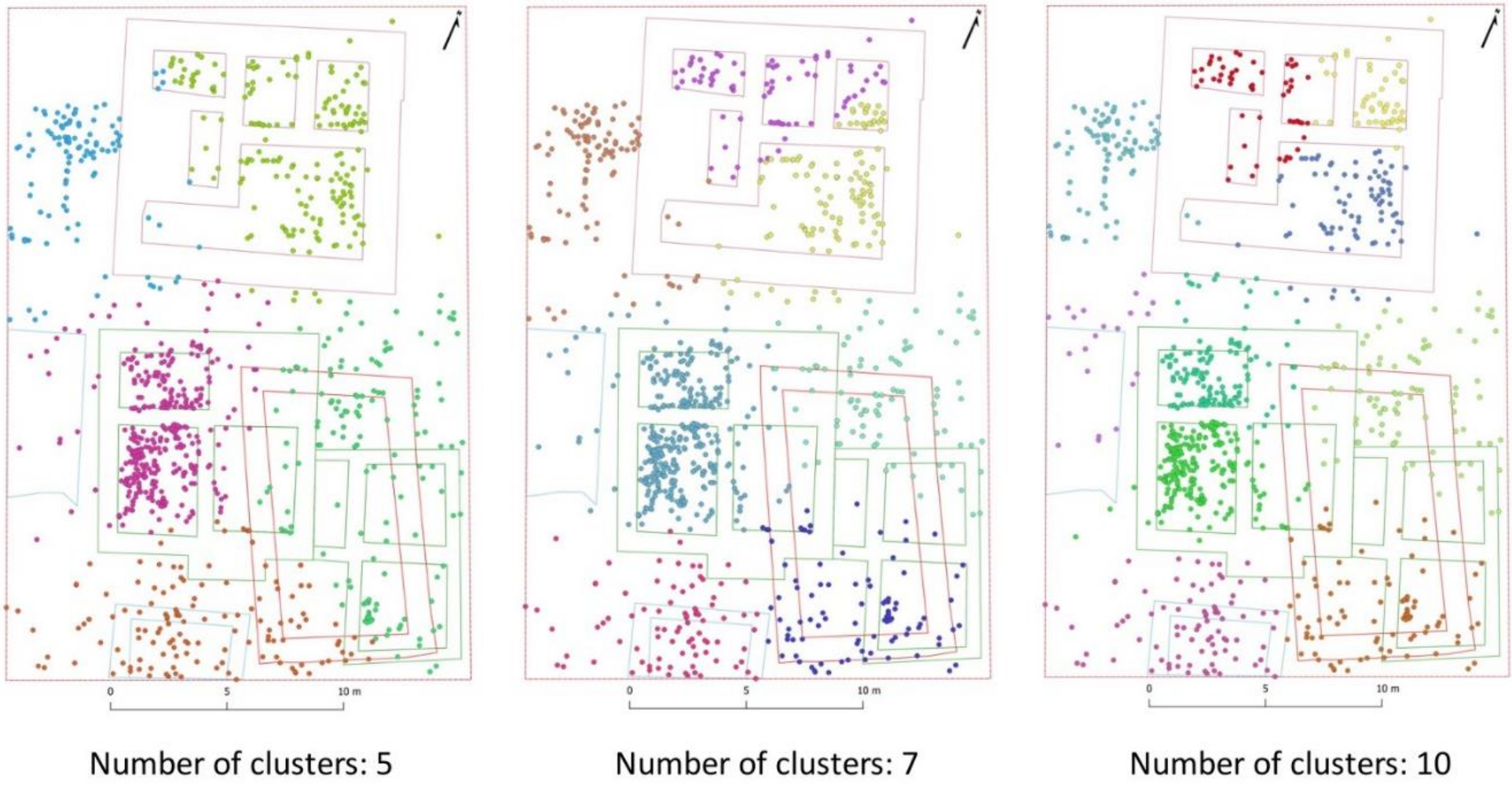


Figure 146 K-means function run on the coin distribution; the different colours represent the number of clusters.

The visualisation of point density also offers additional insight into possible clustering; this was arranged by changing the appearance of the points under the symbology tab within the layer's properties. The vector points were modified to represent the number of coins within a specific radius. The chosen intervals were 25 cm, 50 cm, and 1 m. The resulting images (Figure 147) confirm that the area with more coins in terms of density is Room B; nonetheless, it highlights other areas, such as the north-western corner.

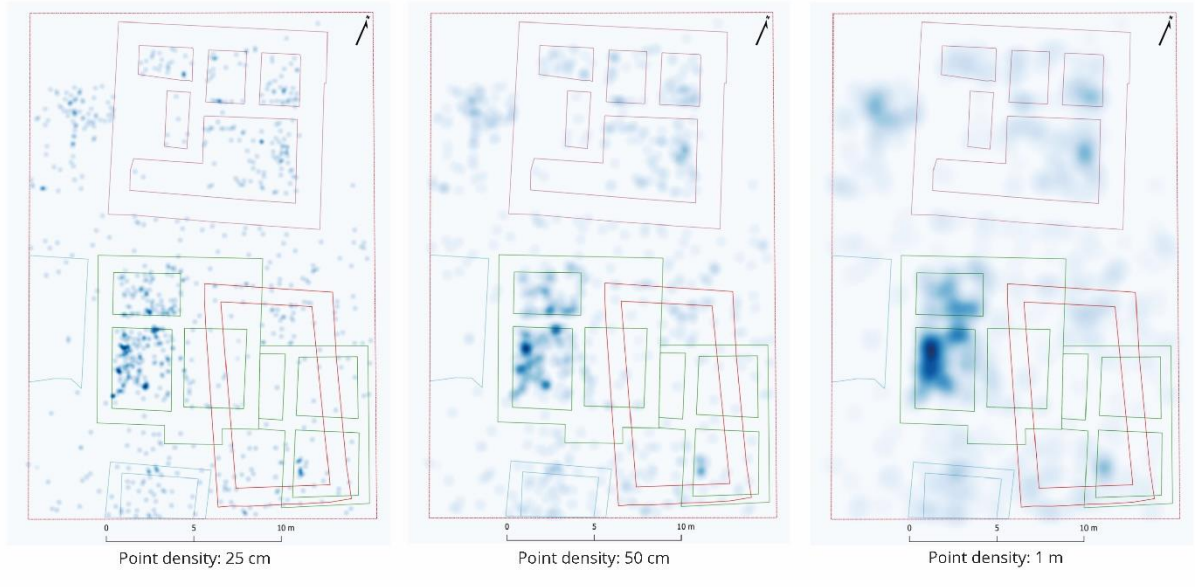


Figure 147 Three visualisations of point density at radii of 25 cm, 50 cm, and 1 m. The coins are represented by blue dots that merge to show their level of proximity pending on the chosen interval.

Concerning simple statistical functions relating to spatial autocorrelation, Local Moran's I and Bivariate Local Moran statistic were used to discern specific concentrations or distribution patterns. The QGIS plugin Hotspot Analysis was installed to run these specific functions (Oxioli et al. 2017). Local Moran's I measures the similarity of nearby features —in this case, the coins' position— to indicate the possibility that similar values may occur together. The variables represent the values —either the elevation or the dating— which the plug-in allowed to consider. This function in the Hotspot Analysis plug-in considers one independent variable, whereas the Bivariate Local Moran statistic considers a base variable in relation to a second variable applied to the other values (as in, the surrounding coins). The plug-in produces the results by adding two more columns to the attribute table of the shapefile for the Z-scores (the normal standard variates) and p-values (the statistical significance of the Local Indicators of Spatial Association – LISA). An output layer displaying the results is generated (Oxioli et al. 2017: 47). Said results are colour-coded: red indicates the occurrence of high values together, blue the occurrence of low values together, whereas white results represent no significant data: the red-lined and blue-lined white circles exhibit outliers of either high or low value.

The data that could be used as independent variables were the elevation of each coin and the dating evidence. Since the dating evidence is broad, it was decided to categorise it in temporal divisions represented by a number in the shapefile's attribute table (see Table 36). The first division is century based: each century or combination of different centuries was assigned a number from 1 to 14. Coins dated to a specific century were assigned the respective number; this number allows the plug-in to recognise which coins had similar dating information. Since some coins were dated with less certainty, groups of centuries were also included.

Table 36 The first temporal division created to run the statistical analysis on the coin database. The table also includes the number of coins pertaining to each category.

Temporal division by century	Assigned number	Number of Coins
1st century CE	1	2
1st-2nd century CE	2	5
2nd century CE	3	7
2nd-1st century BCE	4	3
3rd century BCE	5	2
3rd century CE	6	28
3rd-1st centuries BCE	7	1
3rd-1st centuries BCE / 3rd century CE	8	1
3rd-2nd century BCE	9	5
3rd-4th centuries CE	10	2
4th century CE	11	170
4th-5th centuries CE	12	371
5th century CE	13	234
4th-6th centuries CE	14	9

The choice to categorise the dating evidence into centuries was arbitrary, and the chance that it might bias the outcome of the analysis is possible. Therefore, a second temporal division that considered the dating of the coins to broader periods was also created (Table 37); however, the results did not vary considerably when the first and the second temporal divisions were used.

Table 37 The second temporal division created to run the statistical analysis on the coin database.

Period	Assigned number
Ptolemaic period	1
Roman Imperial period	2
Ptolemaic period / Roman Imperial period	3
Late Roman period	4
4th-6th centuries CE	5

The first analyses were run using the coin's elevation as the fixed variable. The plug-in also required the specification of a fixed distance no smaller than 1 m; thus, it was run with a fixed distance shifting from 1 to 2 to 3 metres. The resulting visualisation (Figure 148) expressed the difference in

elevation between the southern and northern sides of the excavation unit, showing that the coins registered within the amphorae storage building and the northwestern corner were at a lower elevation and that those recorded within the Late Roman house and the southern areas, at a higher elevation, clustered in separate groups. Room C's low-value cluster is because those coins were found at a lower elevation within the room than Room B's. These results emphasise the relationship between the house and the southeastern courtyard and indicate that the same relationship could exist between the amphorae storage building and the northwestern corner.

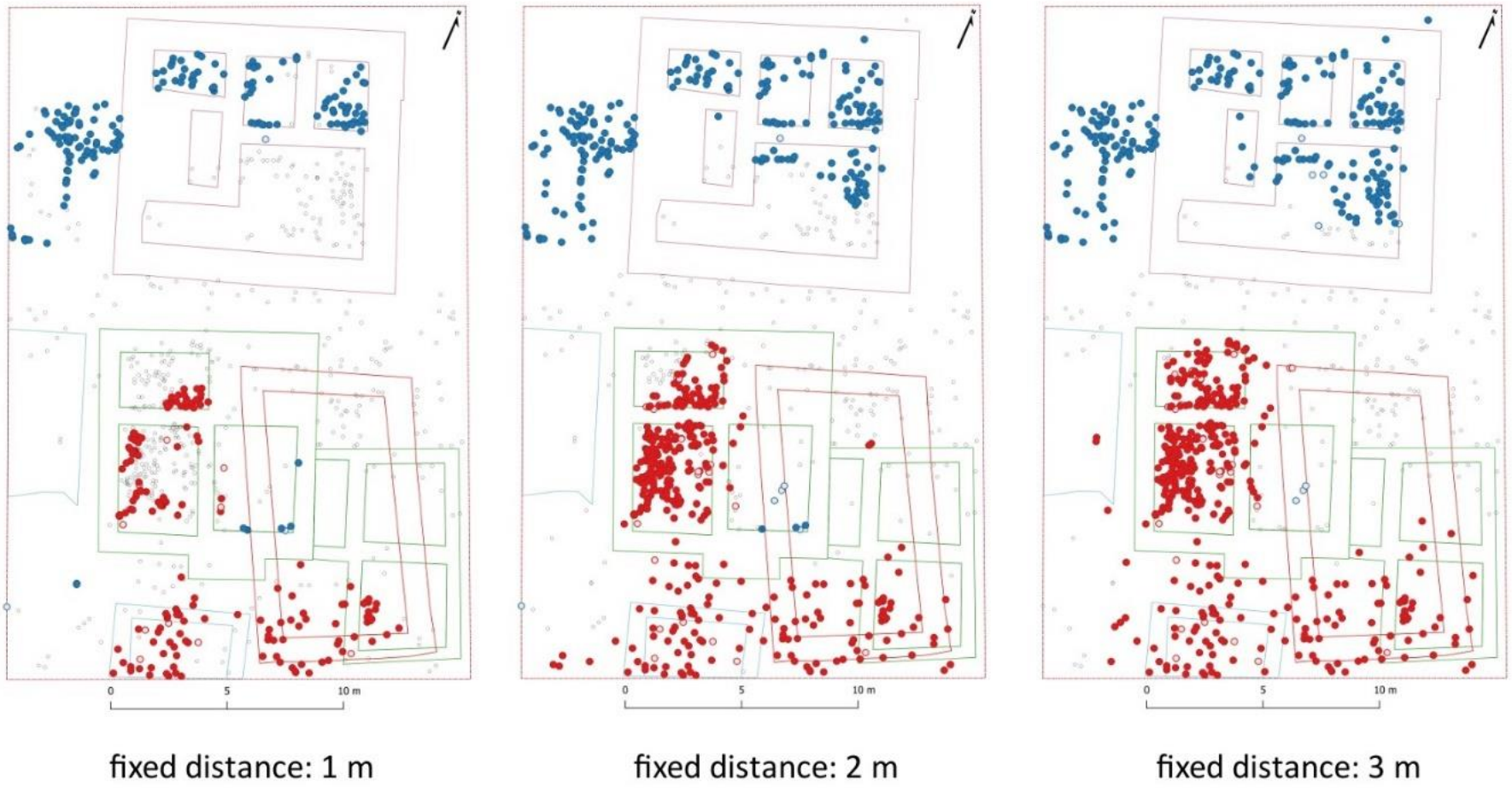


Figure 148 The Local Moran's I statistics results with elevation as the fixed variable and a fixed distance of 1 m, 2 m, and 3 m, respectively. The colour-code is the following: red indicates the occurrence of high values together, blue the occurrence of low values together, whereas white results represent no significant data: the red-lined and blue-lined white circles exhibit outliers of either high or low value. In this instance, we can see that the statistics result corresponds to the gentle sloping of the ground, which the coin dispersal follows. The red coins in the southern part of the unit reflect a higher elevation compared to the blue ones in the northern part of the unit.

A different pattern emerged when the fixed variable was changed to the temporal division. The results (Figure 149) indicated a temporal difference between the coins found in Room B, the amphorae storage building, and the northwestern corner of the unit compared to Rooms A and C and the southeastern courtyard. This analysis highlights the contemporaneity of Room B's latest recordable phase (*Subphase 4*) with that of the amphorae storage building, particularly Room C; this had already been noticed by studying the pottery and coins. Coins minted by Theodosius II / Valentinian III and dated to 425-435 CE had been retrieved from Room B (KAC 222, 224. and 233) and the amphorae storage building (KAC 231, 232, and b1326). The imported pottery dating was congruent with the proposed chronology of 425-450+ CE (Mondin 2019: 67, 69). Therefore, the Local Moran's I statistic supports the current interpretation. The low values (in blue) in the other rooms of the house and the southeastern courtyard may indicate the affinity of the coins in this areas, possibly denoting an earlier phase of use, such as *Subphase 3*.

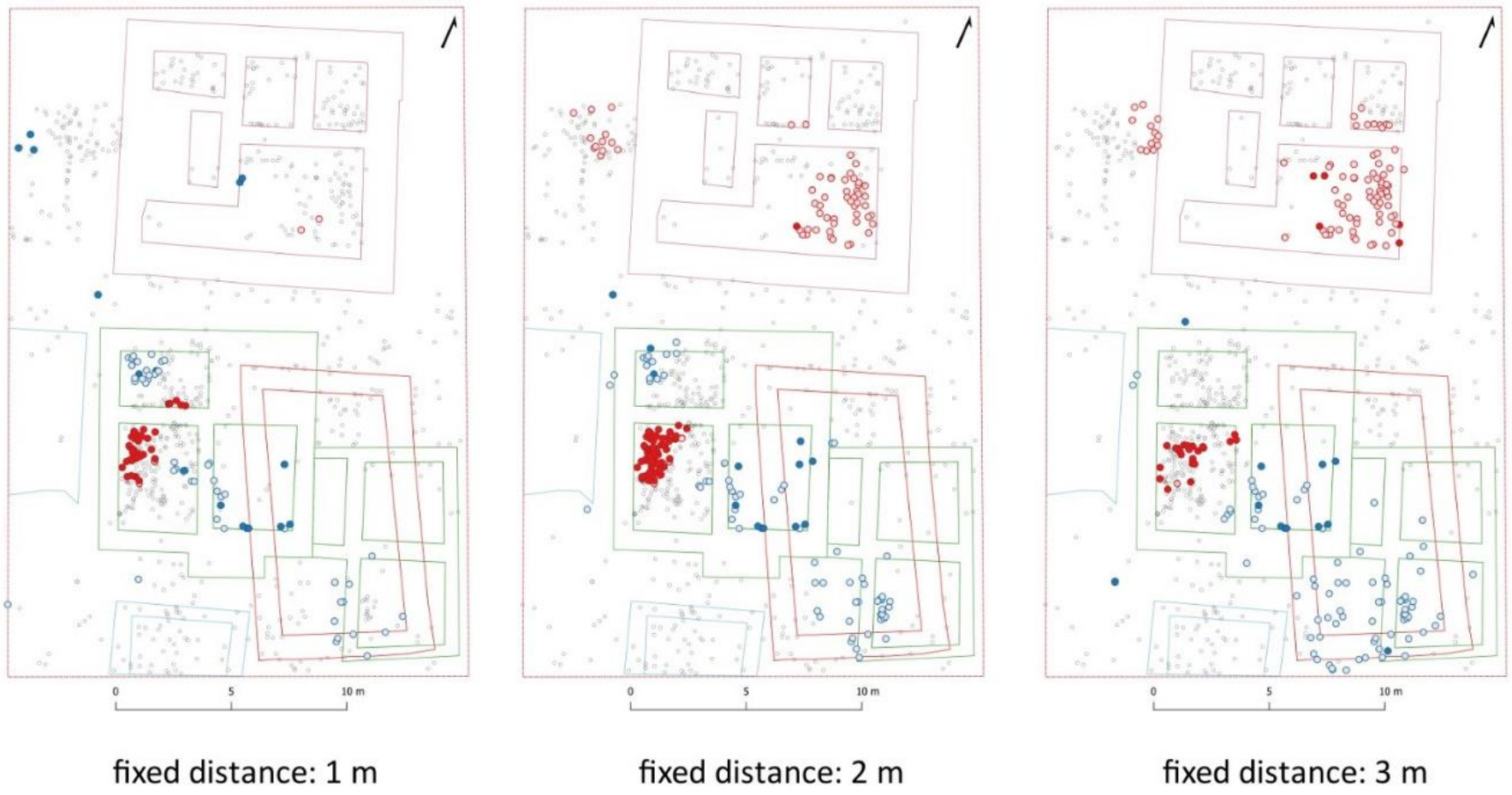


Figure 149 The Local Moran's I statistics results with the temporal division as the fixed variable and a fixed distance of 1 m, 2 m, and 3 m, respectively. The colour-code is the following: red indicates the occurrence of high values together, blue the occurrence of low values together, whereas white results represent no significant data: the red-lined and blue-lined white circles exhibit outliers of either high or low value. In this instance, the statistics results denote coins of similar temporal periods in the House's Room B; similar values also occurred in the amphorae storage building and the northwestern corner of the unit.

The Local Bivariate Moran statistic was run using the same variables (elevation and dating). Local Bivariate Moran allowed combining the independent variables, but no significant changes were noted when the results were compared to those of the Local Moran's I (confront Figure 151 and Figure 150 with Figure 148 and Figure 149).

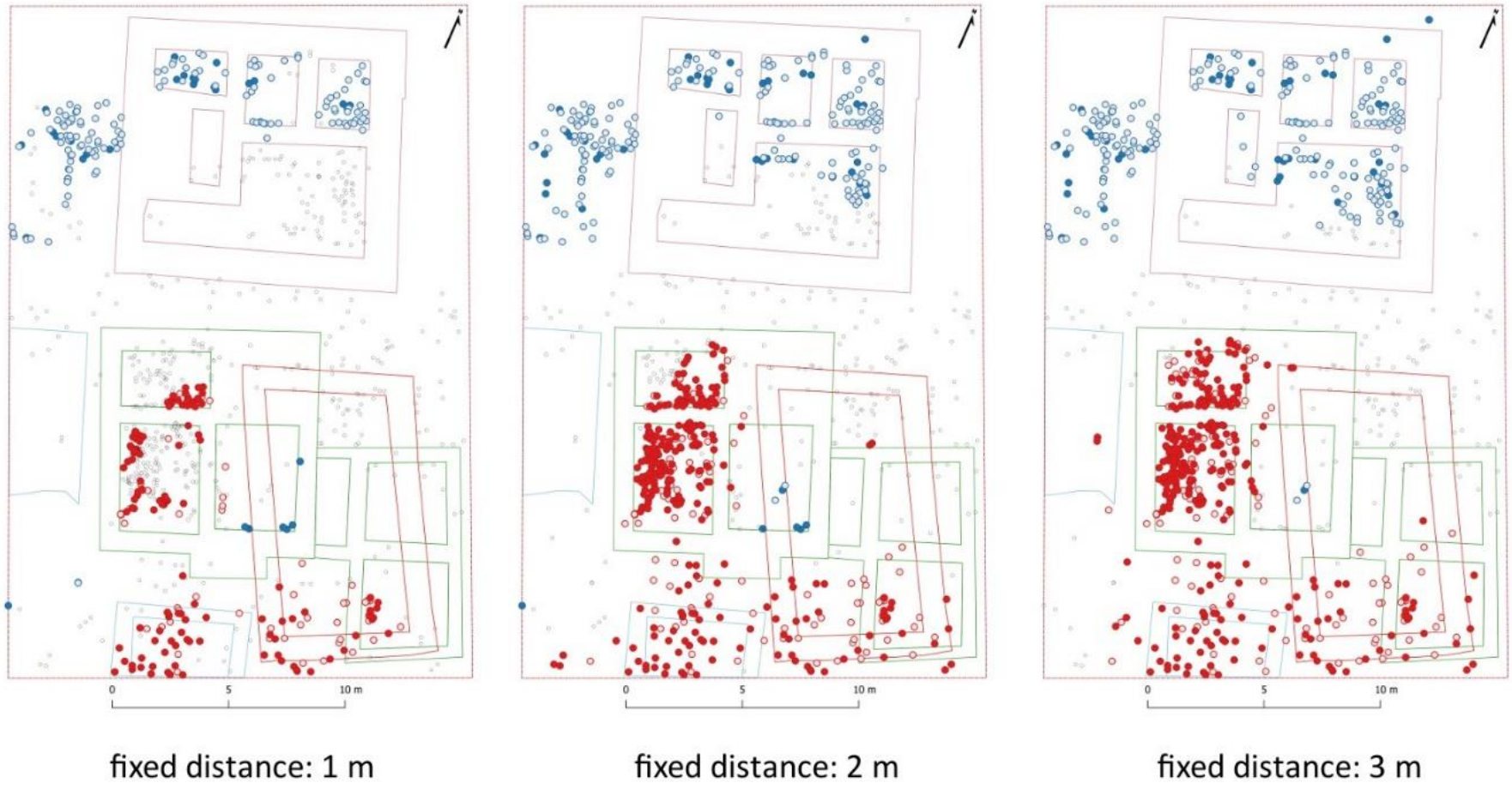


Figure 150 Bivariate Local Moran with the temporal division as base variable, elevation as a second variable, and a fixed distance of 1 m, 2 m, and 3 m, respectively. The colour-code is the following: red indicates the occurrence of high values together, blue the occurrence of low values together, whereas white results represent no significant data: the red-lined and blue-lined white circles exhibit outliers of either high or low value. In this instance, the statistics results show similar results as those obtained with the Local Moran's I statistics: the progressively sloping elevation (from south to north) is illustrated by the colour-coding. The coins retrieved from the House's Room C figure as low values due to their lower elevation compared to that of the coins found in the other two rooms.

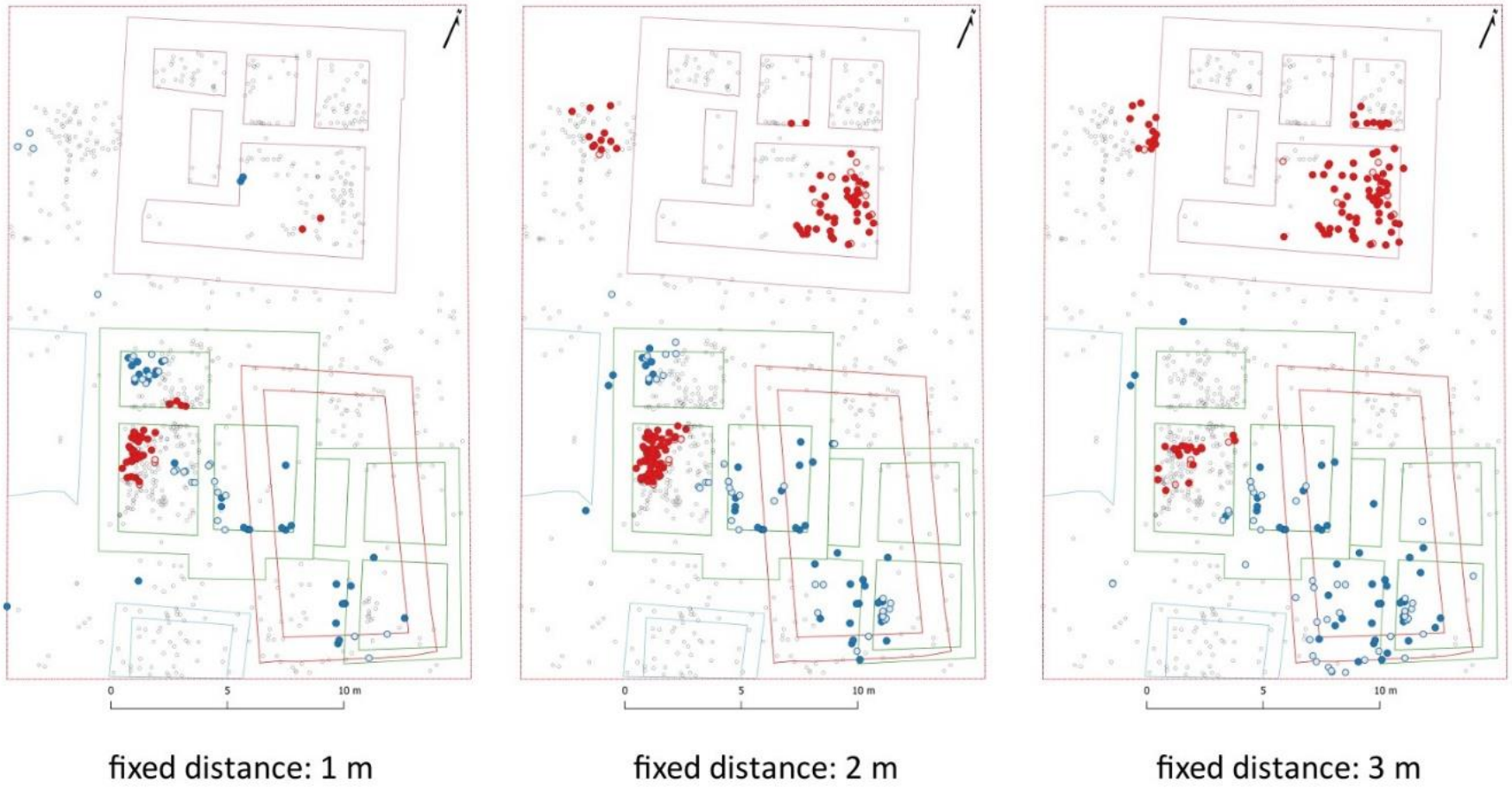


Figure 151 Bivariate Local Moran with elevation as base variable, temporal division as a second variable, and a fixed distance of 1 m, 2 m, and 3 m, respectively. The colour-code is the following: red indicates the occurrence of high values together, blue the occurrence of low values together, whereas white results represent no significant data: the red-lined and blue-lined white circles exhibit outliers of either high or low value. In this instance, the statistics results show affinity between the dating of the coins found in the House's Room B and those retrieved from the Amphorae Storage Building and the Northwestern Corner (*Subphase 4*). The low (blue) values identified in Rooms A and C and C and the Southeastern Courtyard may relate to the an earlier phase of use (*Subphase 3*).

What is noticeable is that the functions consider the coins' location but not their relation to structures and whether they are inside or outside specific rooms, buildings, or areas. Therefore, the analysis was carried out also on the coins found specifically within the house's rooms. Room A and Room B could be tested, whereas Room C could not as it did not have a sufficient minimum number of specimens for the test to run. Eighty-one coins were identified in situ within Room A. As in the previous examples, the coins were subdivided according to a specific time division, in this case, based on the different centuries, as the preservation conditions of most of the coins did not allow for more detailed dating. It can be noticed that the majority of the coins date to the 4th and 5th centuries CE and that there are specimens from earlier periods, mostly the 3rd century CE. The Local Moran's I statistic with the elevation as the fixed variable indicates that the coins in the southeastern corner have similar values in terms of elevation, thus suggesting a possible relation during the use of the room (the coins lied at elevations within a vertical span of 14 cm within all the fixed distances). A similar result was obtained when using the time division as the fixed variable, though the pattern becomes more dispersed as the fixed distance increases. The clustered coins lay at elevations within a vertical span of 13 cm, 14 cm, and 29 cm within 1 m, 2 m, and 3 m of fixed distance, respectively. The identified clusters are located in proximity to the room's southeastern corner, as in the only corner of the room not adjacent to the border walls of the house, where there could have been openings accessible from the outside. The southeastern corner of the room could represent a more secure location within the room.

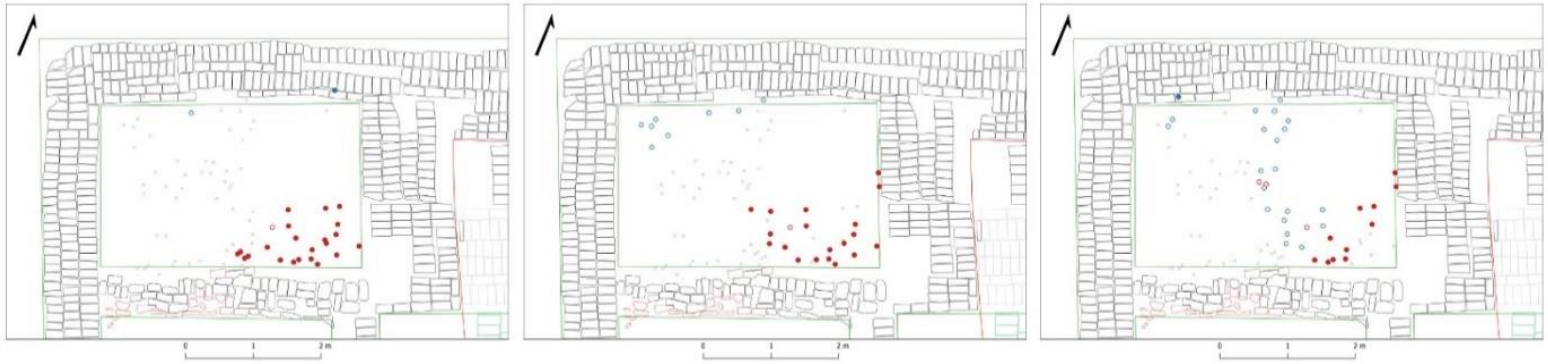


Figure 152 The results of the Local Moran's I statistics on the coin distribution in Room A, with elevation as the fixed variable and a fixed distance of 1 m, 2 m, and 3 m, respectively.

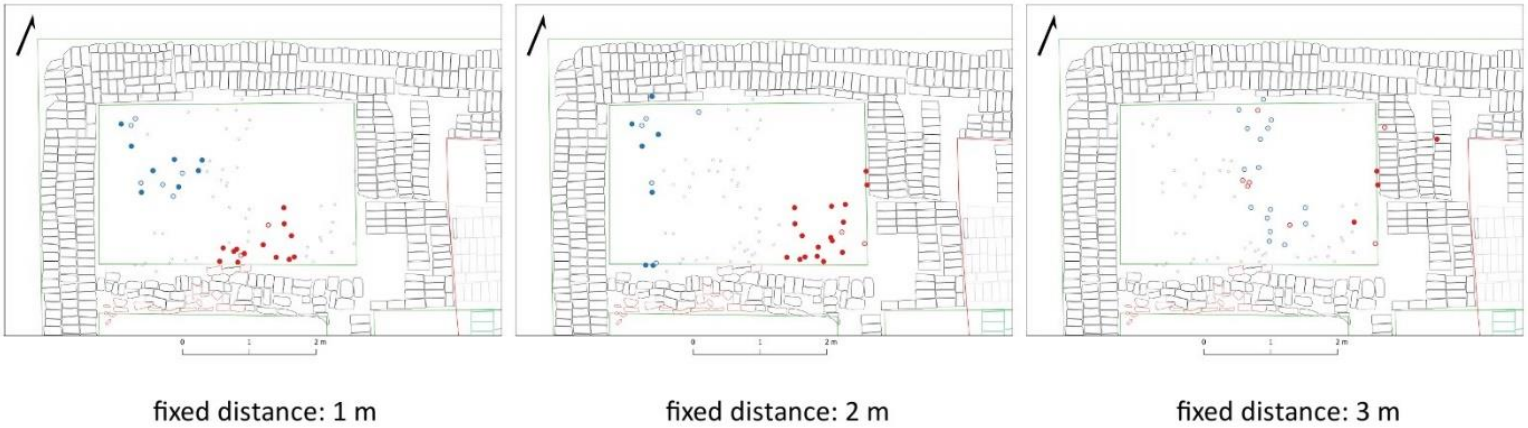


Figure 153 The results of the Local Moran's I statistics on the coin distribution in Room A, with the temporal division as the fixed variable and a fixed distance of 1 m, 2 m, and 3 m, respectively.

The same functions were applied to Room B. Despite the higher number of coins (164 were found in situ), the Local Moran's I function detected clustering of negative values when using the elevation variable. The coins pertained all to the lower deposits. They thus exhibited very different elevation data (within a vertical range of 1.95 m and 1.40 m within 1 m and 2 m of fixed distance, respectively). In contrast, the blue-lined outliers pertained to the upper deposits (F4014, F4018) and had similar elevations (within a vertical range of 10 cm, 15 cm, and 9 cm within 1 m, 2 m, and 3 m of fixed distance, respectively). Contrary to expectations, the blue-lined circles represent possible clusters rather than outliers (Figure 154).

Instead, the Local Moran's I statistic with the temporal division as the fixed variable detected possible clustering in the room's northwestern side. The coins' elevation indicates that they are set within a vertical span of 25 cm, 12 cm, and 10 cm (within 1 m, 2 m, and 3 m of fixed distance, respectively), thus suggesting that it does not represent a depositional cluster (Figure 155).

The statistical analyses demonstrate that the distribution of the coins was not random. The Local Moran's I statistic confirm that the coin distribution, particularly the most superficial part that yielded the highest number of coins, does not represent a specific event of scattering; instead, the distribution highlights that it was a long process, probably related to one of the latest use phases of the rooms and the spaces.

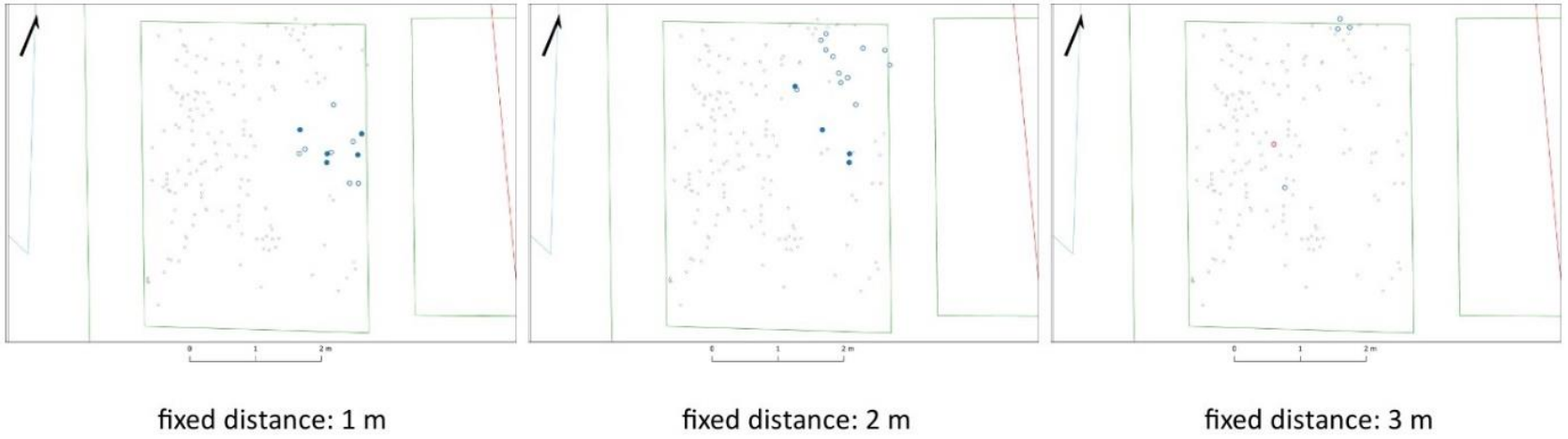


Figure 154 The results of the Local Moran's I statistics on Room B's coin distribution, with elevation as the fixed variable and a fixed distance of 1 m, 2 m, and 3 m, respectively.

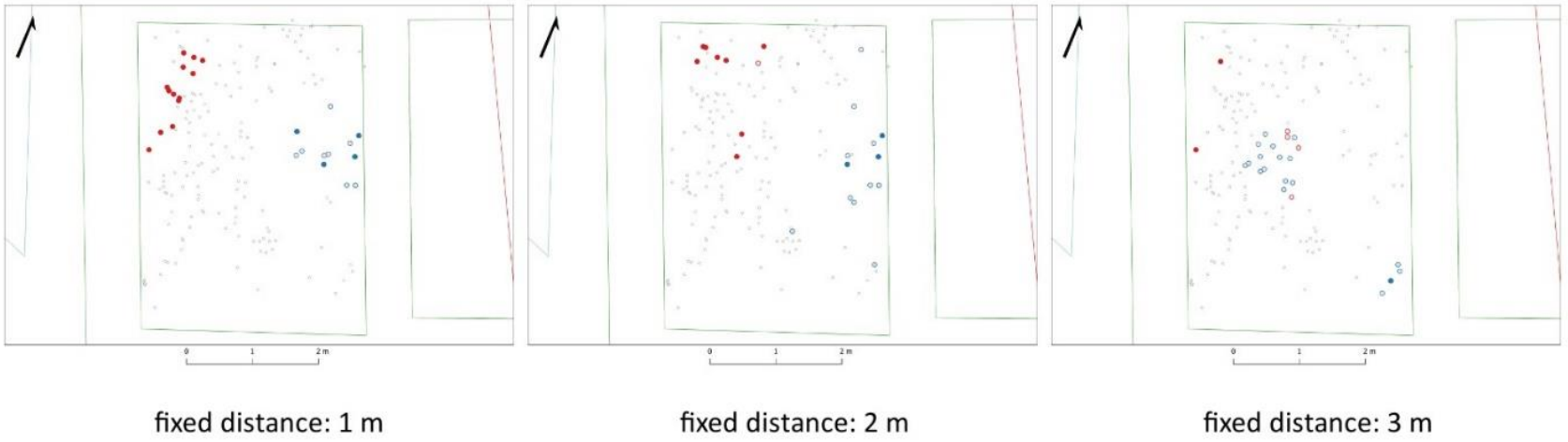


Figure 155 The Local Moran's I statistics results on Room B's coin distribution, with the temporal division as the fixed variable and a fixed distance of 1 m, 2 m, and 3 m, respectively.

4.2.4.3 – Conclusions

The mapping of all coins finds detected in situ allowed to obtain 2D and 3D perspectives on the scatter, which could subsequently be analysed by other means. Referring to Table 36 for numbers, it can be see that 92% of the coins date to the 4th and 5th centuries CE, thus denoting the epoch in which the house was constructed and used; the other century with the higher number of specimens was the 3rd century CE, however it constituted 3.3% of the dispersal. The finds from the imperial Roman period (1st-2nd centuries) amount to 1.6%, the Ptolemaic coins to 1.3%. These finds pertaining to these smaller percentages were retrieved from almost all identified contexts,[98] which implies that they were either residual or perhaps still in use. Therefore, the above analyses dealt majorly with the 4th-5th century coins (see Appendix to Chapter 4, Architectural survey, Floors for plans of the Ptolemaic, Roman, and Late Roman coins, respectively).

The coin dispersal identified in Rooms A and B could indicate the existence of a floor that was not physically detected during the excavation or that had already been removed when the house was levelled. The two and three-dimensional visualisation of the coin dispersal and the statistical functions indicate that the coin distribution was not a single scatter event but a process that took place during *Subphase 4*. The fact that the scatter is present also in the rooms of the Amphorae Storage Building, whose ground floor yielded better preservation than that of the house despite also having undergone levelling, and in other areas of the unit (in lesser quantities, less clustered, and at varying elevations) also argues against the eventuality of a one-time scatter. It likely depended on the commercial activities and transactions carried out in the buildings (Asolati and Crisafulli 2019: 11–13).

The possibility of a 'coin floor' was discussed in terms of how high/deep the basement rooms would have been based on the available data: between 1.28 and 1.57 m in Room A and between 1.23 and 1.49 in Room B. The dimensions could have been adequate as basement rooms with low ceilings were not unusual for tower houses (Arnold 2003b: 109). This scenario would fit with the apparent lack of access points into the basements and on the ground floor and no traces of possible vaulting to support it. Therefore, the 'coin floor' will be considered part of the main phases of the house, a phase that did not contemplate the basements. It is difficult to gauge when the basements were deserted and filled, and the ground floor took them over. The combination of coin and pottery evidence allows us to infer that the latest recordable phase of use of the rooms of the house – as well as other nearby contexts such as the Amphorae Storage Building, the Northwestern Corner and the Street – was 425-450 CE (Asolati and Crisafulli 2019: 13, Table 1.3; Mondin 2019: 67, 69, 81, Table 2.18); as such, the date 425 CE can be used in this case as an indicatory *terminus ante quem* for the abandonment of the basement.

[98] Surface Layers, House Room A, Area of House Room B, House Room B, Under House Room B, House Room C, House Southeastern Courtyard, Amphorae Storage Room B, Amphorae Storage Room C, Northwestern corner, Street, Robbed Foundation Trench, Over Third Building, Area between House and Third Building, Third Building, Sebakheen Pit, Outside Roman Room, and Roman Room.

Therefore, the 'coin floor' might have been implemented when the basement rooms were no longer in use and had consequently been filled (*Subphase 4* – tentative subphase).[99] The fired brick skirting applied to two of Room B's sides had an analogous elevation to the coins, an additional testimony of the existence of a floor. The excavated houses in the Fayum sites often revealed basements filled with waste, but this occurred when the houses had been abandoned (Davoli 1998: 120). Arnold (2003b: 175) noted that the basement level of the Late Antique houses at Elephantine was often absent, whereas it was detected in Roman houses.

It could be that the basements were eventually filled at some point, and the occupation was focused on the ground floor and the upper storeys. Given that the levels in tell sites were constantly rising, it would not be unusual that the house occupation would also have risen (Gazda and Wilfong 2004: 19–22; Husselman 1952: 58). Another option could be that not all rooms were used as basements. The cellar could have been preserved in one room, possibly Room C, where the lack of coin dispersal could imply a different use of the room and a different architectural level. This suggestion could fit better with the higher quantity of dumped slag found within it, which was considerably higher than in the other rooms (see Appendix to Chapters 3 and 4, Artefacts). Given that Room C was the only room of the house crossed by the robbed foundation trench, the higher slag quantities could have been related to prepping the ground for support.

Regarding the functional presence of the coins, such a high concentration suggests a frequent occurrence of transactions, possibly not simply related to the domestic economy of the house but to commercial activities. One function —domestic— does not exclude another —commercial. Therefore, the evidence of the 'coin floor' indicates that the ground floor of the house had been a venue for commercial transactions probably related to the household's purchases as well as business. This consideration will be further explored in *Section 4.3.2 – WFH (work from home): small scale workshops.*

The numismatic analysis has revealed that most coins were very small AE4 specimens; interestingly, even most of the Ptolemaic coins were of small dimensions, which led Asolati and Crisafulli to suggest that they could have been reused in the 4th-5th centuries rather than representing intrusions (Asolati and Crisafulli 2019: 12). Though many coins displayed heavy oxidative degradation, it was possible to identify a number of mints[100] from which they originated, which led to notice a predominance of eastern mints (Asolati and Crisafulli 2019: 15–16). This information on the coin mints indicates the participation of Kom al-Ahmer in the trade network within and beyond Egypt, which fits

[99] With thick soil deposits with inclusions of material culture that could provide some support for the floor and possibly some isolation from the humidity of the ground. The excavation of the Earthquake House of Kourion also revealed a number of fill deposits inclusive of material culture right below the final occupation surface Costello speculated the fill deposits could represent the build-up of gradual deposition or heaps generated by cleanings in relation to a disaster, or possibly both (Costello 2014: 40).

[100] Eastern empire mints of Costantinopolis, Nicomedia, Cyzicus, Sirmium, Thessaloniki, Heraclea/Nicomedia/Cyzicus, Antioch, Alexandria Troas/Troas; Western empire mints of Rome, Aquileia/Rome/Thessaloniki, Treviri, Arles; local mint of Alexandria (see full list of coins in the Appendix to Chapters 3 and 4, List of coins).

with evidence offered by the pottery data (see *Section 4.3.2.4 – The amphorae storage building*). Preliminary insights and considerations on the involvement of Kom al-Ahmer in the trade networks have been presented by Mondin (2016, 2019: 165) and will be discussed in Chapter 6 – Conclusions.

4.3 – Reconstructing the daily life of a house of the Late Roman Northwestern Nile Delta

Chapter 3 has illustrated the archaeological exploration of the contexts of the Late Roman house of Kom al-Ahmer. With basis on that data, this section will contextualise the house remains and their material culture considering the historic period. This process will allow add to the conclusions of the archaeological investigation and present a picture of one 5th century CE household of the Egyptian Delta.

The state of the remains limits the number of questions that can be answered about the house's inhabitants. Without written records, questions on personal information cannot be answered. Other questions on the household's situation (how many people inhabited the house?[101] Was there one or multiple families living under the same roof?[102] Did they all practice the same or different religions? Did the inhabitants undertake work commitments beyond the house context, such as administrative positions? Did they own or rent land for work?) are also out of reach. Nevertheless, not being able to answer these types of questions underlines that perhaps they may not be the appropriate questions to pose in terms of the evidence base and that the effort should be directed on questions that can be approached based on the archaeological data. For example, the architectural survey of the house engaged primarily with the foundation remains, and their analysis led to inquiring on topics such as foundation layers and concave walls as opposed to space syntax.

This section concentrates on combining the architectural interpretation with the material culture, emphasising the areas outside the house, as in the southern courtyard. The house's abandonment seems to have been planned, which resulted in the leaving behind of limited material culture, mostly fragmented. The findings recovered from the contexts outside the house are vital in understanding the domestic activities undertaken by the household members, which are not limited by the house's wall but expand outside in the immediate surroundings, thus demonstrating how the excavation of courtyards and the spaces around houses should be a must when investigating domestic contexts.

[101] Haas (1997: 199) had commented on the impossibility of quantifying the number of people living under the same roof, even when the number of rooms and dimensions are known.
[102] Papyri evidence revealed that whole houses, parts of houses, and individual rooms could be rented or acquired by different families (Brooks Hedstrom 2017: 189).

4.3.1 – The use of the house

The area of the house also seems to have undergone *sebakheen* activities, which may have removed the later occupational phases; however, it must be reminded that the upper layers of the house were removed in antiquity as no collapsed or accumulation of building materials was encountered. As such, the house had already been abandoned and demolished in antiquity. A building that is no longer inhabited will likely be emptied of its contents by its former individuals, mainly if the plan is to demolish it to build over it. 'Curate behaviour,' adapted from Binford (1973), is defined as removing objects and tools that can continue to be used elsewhere (Schiffer 1986: 90). Even if it were not possible for the inhabitants to remove everything, other individuals, most likely neighbours, could take some things. Regarding the house's architectural elements, the absence of collapsed elements —such as the roof— testifies to the levelling of the building; the mudbricks of the removed walls could have very well been re-used in other structures or even recycled (Kemp 2000: 82; Lorenzon et al. 2020: 111). Therefore, the traces of the house inhabitants' lifestyle are limited to the finds left behind, which had most likely been discarded. Following this argument, questions arise on the extent to which the remains can indicate how the house was intended to function, what activities were carried out in the rooms, and the dichotomy of public and private within the ground floor spaces. An interpretation of how the room's functions may have differed has been provided through the study of ceramic remains (Mondin 2019: 64–7), whereas the presence of the coins, whose distribution occurred both within the house and the amphorae storage building, suggest that transactions related to commercial activities would take place at least within two of the house's ground floor rooms (Asolati, Kenawi and Marchiori 2018: 147). Figure 156 shows a summarising chart of the finds retrieved from the three rooms of the house; it indicates the percentage distribution of the finds typologies, thus providing an overall idea of the finds distribution among the rooms.

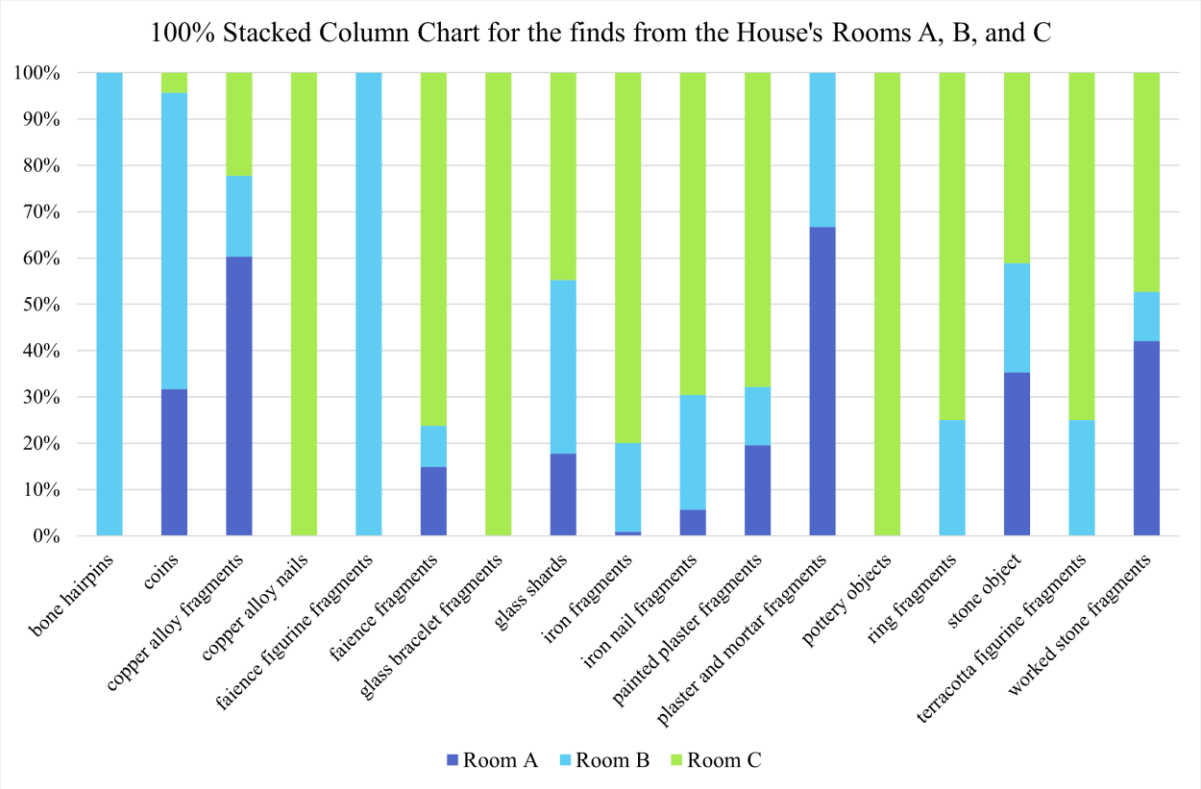


Figure 156 The 100% Stacked Column chart of the finds (excluding pottery, bone, shell, and slag) retrieved from the house's rooms. This type of chart presents data in proportion to the percentage distribution, not the total numbers.

Maybe unsurprisingly, the outside context of the house is equally telling as the house's interior. The detectable subphases of the house are characterised by the southern and eastern additions and the changes that the context immediately surrounding the house underwent. These subphases can be viewed as phases of life of the house, architectural testimonies of a possible appropriation of spaces —shared or available— which were modified following specific needs, probably related to the activities that were carried out. The courtyard, or the areas delimited by buildings within domestic neighbourhoods, were used to take advantage of space and for certain activities would have required an open-air setting, such as cooking, craft manufacture, and animal rearing (Figure 157); this would have created the opportunity for socialisation, which assumably conveyed an open shared workspace and a more amicable atmosphere. The exterior walking surfaces may not have been given as much attention as the interior for thorough cleaning, so there is a higher likelihood of dispersed material culture.



Figure 157 An example of courtyard structures in modern Egypt (Luxor) (Personal photograph I. Hinojosa Baliño 2011).

The courtyard of the case study house was an open space not entirely shielded from the street and partially delimited by buildings. Given this conformation, it could have been shared among the nearby inhabitants, but this possibility will become clearer pending the future excavation of nearby buildings. Overall, the courtyard could also be delimited by small walls and not necessarily placed behind the house (see Arnold 2003b for houses at Elephantine), incorporated within houses (see Boozer 2015b for a comparison between houses at the Dakhleh Oasis and the Fayum; Hope 2015 for houses at Kellis; Husselman and Peterson 1979 for houses in the Fayum; Rodziewicz 1984: 66–125 for houses at Alexandria), and there are also instances of houses that had no courtyard at all but sufficient rooms to allow their inhabitants to perform the activities inside (see the case of Amheida's Houses B1 and B2 in Boozer 2015a; Hope 2015).

Therefore, the material remains urge us to focus on the work activities undertaken on the premises of the house, which in this context offer some tangible indication of the occupations of the house's inhabitants. While work can be a strong marker of socioeconomic status, one realises that it is reductive to simplify individuals by their professions or work endeavours; the caveat is that, as will be discussed in the following sections, the data does not allow us to infer more. There will not be any

attempt to push further on this data by approximating details that cannot be confirmed (such as the number of inhabitants, number of families, gender, age, and who did what).

4.3.2 – WFH (work from home): small scale workshops

The archaeological evidence from the case study house hints that the building was used for commercial and craft activities, at least in its latest recordable phase of use. Room A could have been used as a possible storage space or *taberna*. It yielded a high number of sherds of amphorae (62.04% of the classified an analysed sherds were of amphorae, of which 65.67% were of Egyptian amphorae and 34.33% were imported amphorae), Egyptian utilitarian ware (37.65%) (Mondin 2019: 64–67), painted plaster fragments (281), marble slab fragments (nine) that could have been employed for counters or surfaces, and it was the only room that overlooked the street;[103] a pattern of coin dispersal (eighty coins) was also noted. Room B also yielded a pattern of coin dispersal (164 coins), a lesser quantity of painted plaster fragments (182), and the pottery remains exhibited a higher amount of Egyptian utilitarian ware than Egyptian and imported amphorae. The bulk of the sherds pertained to cooking ware (50.62%), and a considerable amount pertained to tableware (37.67%) (Mondin 2019: 67–69).

Prior to the latest recordable phase of use, which occurred on the ground floor, the rooms had been basements. In general, the underground rooms of Late Antique houses in the Near East have been understood as storage spaces (Sodini 1997: 518); this consideration has also been accepted for the houses in Egypt (Gazda and Wilfong 2004: 19). Indeed, all the house's wall facades exposed within the rooms denote a lack of openings, whether doors, windows, or niches. This absence suggests that these rooms may not have been frequented often.[104] This consideration brings questions regarding what materials would have best been suited for storage in the basements. In Rooms B and C, where the floor surface of the underground rooms was reached, there were few instances of material culture in situ.[105] Whatever the contents of the rooms had been, they were removed before the abandonment of the basements, which makes it unclear what was their particular purpose.

This overview has considered the spaces within the architectural remains; it will now consider those beyond the square plan of the building. As noted in *Section 3.3.8 – The glass kilns*, the excavation revealed the existence of a series of small glass kilns, whereas the post-excavation data analysis on bone artefacts and the recorded geospatial data suggested that their presence in the house's courtyard correlates with small-scale manufacturing activities. Hence, the courtyard behind the house exhibited domestic and craft-making endeavours. Can a single area, tightly embedded within a residential

[103] 'Shops occupied all the valuable commercial space along the street' (Yegül and Favro 2019: 264).
[104] The limited openings to these rooms lead us to think that the ventilation would not have been very efficient; if we combine this assertion with the fact that they were underground rooms built within a terrain that was prone to humidity, one wonders how pleasant they may have been in terms of air quality and smell (P. Wilson 2021, personal communication, 28 April).
[105] Fired bricks and the corner fragment of a statuette with a human left foot on a plinth (KAO 41) in Room B, and an iron nail, a shell, and a shard of glass in Room C.

neighbourhood, be host to several disparate activities? Yes, it could, and it links with the concept of a fluid use of space. Some approaches to studying houses can be problematic as we try to 'sectorise' the house, labelling and assigning tasks specific only to that part of the house; however, this is a modern approach —and even relatable to middle-high socioeconomic backgrounds— whereas that is not always the case, neither in antiquity nor in modern times. Costello (2014: 2) used the expression of 'pragmatical arrangement' against the adherence to specific architectural canons. It resonates with Rapoport's discussion on 'systems of activity' and the need to recognise the possibility of incongruence between architecture and activities (Rapoport 1990: 18). In archaeology, this approach is complex as it needs to be counterbalanced with the surviving remains and the recognition that some pieces of information were removed in antiquity or later. It is not an approach that can be quickly adopted in excavation, where the emphasis of work is on the physical remains; however, it becomes part of the post-excavation analysis.

As the evidence pointed toward the presence of glass and bone working activities on the house's premises, it became necessary to evaluate whether they could have constituted the remains of workshops. It has been suggested that workshops should not necessarily be considered unilaterally distinct from the domestic space (Costin 2020: 181–3; Boozer 2022: 117). The traditional view of workshops as establishments unlinked from the domestic ones sounds somewhat influenced by relatively modern Western concepts of work versus house discrepancy, where one tends to leave the house to go to work and where production is highly industrialised and primarily of large-scale. Instead, workshop activities could be performed out in the open, even in courtyards, and not be restricted within a closed, interior space; examples of such synergy have often been noted in Egypt (Cribiore 2015: 152; Kemp 1989: 309; Myśliwiec and Sztetyłło 2000; Rodziewicz 1984; Wilfong 2002: 11). Shaw (2004: 16) claimed this point of view for the New Kingdom, but Nicholson and Nenna (2013: 134) argued that it could perfectly apply also to the Ptolemaic and Roman periods. Moeller referred to multi-functionality and 'hybrid households' when introducing Old Kingdom houses with some rooms dedicated to both domestic and non-domestic activities, including administrative work (Moeller 2016: 192, 212). This pattern of house-life organisation was detected for houses at Kom el-Dikka: for instance, house D, which is one of the best-preserved buildings investigated so far, had the front door and shops facings onto the street, and the remaining parts of the lower floor were employed for craftmanship, the upper storeys for housing, the courtyard for a variety of purposes, among which resting —this has been suggested due to the presence of stone benches—, worship —a dedicated space for common prayers—, sanitation (latrines), and staircase leading to the upper floors (Figure 158) (Rodziewicz 1984: 332). When craft production was involved within the domestic context, the house setup would likely have reflected it due to the interrelation between the domestic and production activities (Huebner 2016: 170).

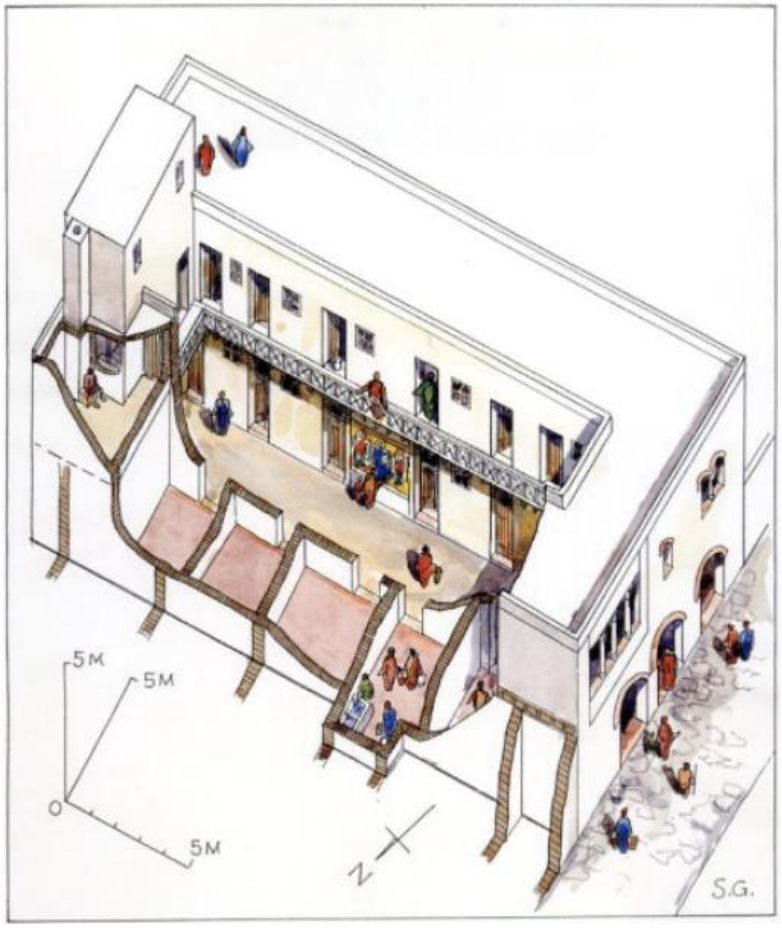


Figure 158 Axonometric reconstruction of House D in Kom el Dikka *(McKenzie 2010: 217, figure 374)*.

Rodziewicz (1984: 331) considered the bathhouse at Kom el-Dikka as a catalyst for the generation of workshops within the residential sector as the construction of the Roman baths may have 'attracted crowds and good conditions for trade.' It could have been the case for the residential sector of Kom al-Ahmer, whose Roman bathhouse was located approximately 65 m southeast of the house. Two successive construction stages constituted the Kom al-Ahmer bathhouse: the first was built roughly in the early empire, the second one roughly in the 3rd century CE, with continuous developments until the 5th century CE (Fournet and Redon 2017: 297–98). Kenawi (2014: 109) estimated that it was used between the 2nd and 8th centuries. The presence of the bathhouse could have influenced the development of the nearby residential sector. What is more, the presence of domestic workshops for commodities such as bone and glass products is another suggestion towards the status of Kom al-Ahmer as a town or city; though trades were registered in villages, they were usually related to livelihood (for instance, granaries, threshing floors, bakeries, dovecotes, pottery work) rather than commodities (Bagnall 1993: 111–133, 130; Keenan 2007: 231; Wilfong 2002: 11–12). We might also take a leap and wonder whether the presence of the minor Nile branch identified west of the site would have hosted a harbour or jetty, which in turn could have prompted the creation of local workshops as Kom al-Ahmer's

western residential sector could have accessed goods and materials shipped in and out of the site (see *Section 2.4 – Kom al-Ahmer in the Late Roman period* and Figure *27*).

At Tell Atrib, several figurines were retrieved from the premises of the Ptolemaic bathhouse, which led the investigators to suppose that the bathing establishment had been a venue associated to the cult of fertility (Myśliwiec 2004: 62–3). The figurines seem to have been produced at the local workshops (Myśliwiec 2000: 200–3), which suggest a possible influence exercised —either directly or indirectly— by the establishment on the business activities undertaken locally. The evidence from the workshops at Tell Atrib shares similarities with the ones at the case study house: Myśliwiec (2000: 30) noted that the walls of the workshop structures had hardly been provided with foundations and in some instances the ground had not even been levelled, which made it challenging to differentiate the workshops from the streets and the courtyards. Myśliwiec added that 'the brief use of these primitive structures necessitated frequent renovation and layout changes.'

A domestic workshop would probably have differed from an industrial one in terms of performance and scale. Speaking of large-scale production, that would have been carried out in suburban areas of settlements, away from the city centre, due to the preparation and handling of raw materials, which could have posed safety hazards —such as fires— as well as discomforts like strong odours and loud noises (Baldini Lippolis 2007: 228; Flohr 2012: 52; Klitzke 1959: 184–5; Putzeys and Lavan 2007: 81, 93). When discussing the location of workshops in Pompeian atrium houses, Flohr (2012: 72) concluded that care needs to be taken when claiming spatial problematics regarding specific crafts, as the response may have been practical or cultural-dependent, meaning that it varies depending on the craft. In the 6th century (possibly between 531-33 CE), Julian of Ascalon wrote a treatise focused on rules for the built environment that considered neighbourhood equality in terms of rights and responsibilities when it came to new constructions and changes (Hakim 2001: 8). One example of these rules concerning workshops was that productions that could pose a fire safety risk, such as glass, would have to occur on the outskirts of settlements or within uninhabited areas (Hakim 2001: 7, 10, 11). Saliou (1994: 270) noted that the separation between residential and production structures became a feature of the Islamic city (Brunschwig 1947: 146–149). Given the date of the treatise, it does not apply to 5th century CE Egypt, when in turn, according to papyrological evidence, some crafts specialisations (including glass) were restricted to cities (Kingsley 2003: 122) and not relegated to specific urban sectors but integrated within the residential ones (Bagnall 1993: 51–2).

As shown in Chapter 3 – The case study house, the subdivision of the courtyard was constituted by the construction and addition of architectural elements, whose size and layout denote that they were conceived as additions to the context of the established buildings, like the house and the amphorae storage building. It is possible to see an ongoing re-organisation of the open space into enclosed ones that correlate with the activities performed there; the change is emphasised in *Subphase 3* and *Subphase 4*. The act of subdivision brings to mind an aspect of the change of the classical city into the medieval one, where large spaces, notably within public buildings, were reclaimed and repurposed as dwellings

and commercial settings, with the creation of shops and workshops (Uytterhoeven 2007: 46–47). While the Kom al-Ahmer Late Roman sector does not seem to have sprouted from an already existing public building but seems to have been envisioned as a residential quarter of more or less similarly sized buildings, it is of particular interest to observe the remodelling of the shared external spaces, such as the case of the southeastern courtyard. This thought is of further relevance as the eastern-most side of the house's courtyard appears to have been left as an open space during *Subphase 3* (Figure 159 and Figure 160).

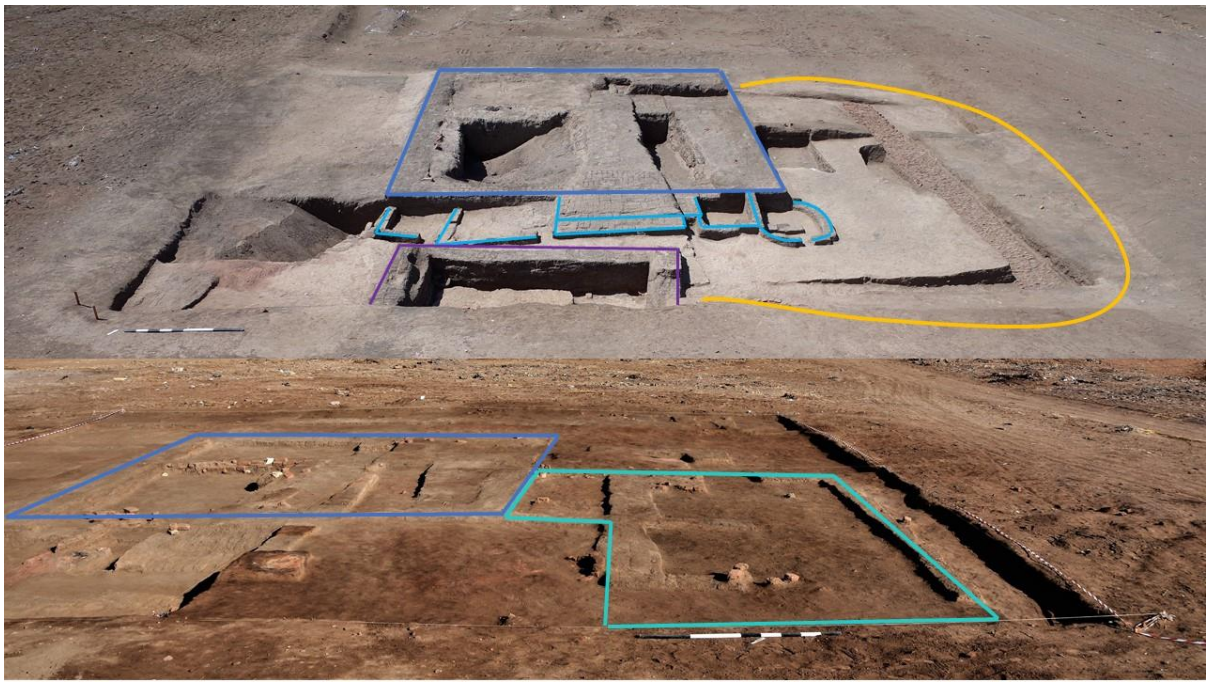


Figure 159 View of the southern side of the excavation unit (top) (*Subphase 3*). The southeastern courtyard is indicated in yellow (within the limits of the excavation unit); the remains of the house are in dark blue; the southern addition, flanking the house's southern side, is in blue; the third building is in purple. The lower image shows how the available space east of the house was later occupied by constructing the eastern addition (in aqua green) (*Subphase 4*).



Figure 160 View during excavation of the empty southeastern courtyard (*Subphase 3*), contemporary with the southern addition (in yellow in Figure 159).

The house stood within a residential sector on the western side of the settlement's preserved extension. It was surrounded by buildings, presumably ranging between domestic and commercial, of similar dimensions and was roughly 65 metres northwest of the bathhouse. The location can indicate that the house was embedded within the urban area of the settlement, without direct access to the fields. It was a sector where people lived and consumed goods; thus, it plausibly could have required small businesses from which the inhabitants could acquire supplies or commodities without moving longer distances within the settlement.

4.3.2.1 – Home, a place to work

The discussion regarding the case study house has often orbited around a particular question: is this a house? This query is mainly related to preservation: how much can be understood of an abandoned building that was emptied and levelled? To answer this question, it became imperative to address the concept of the house, think about inherent preconceptions regarding the interpretation of the house, and review the use of houses throughout time (see *Section 1.2 – What is a house, and why should we study it?*). The use of spaces in houses in Antiquity —and nowadays— did not necessarily have to correspond

to the initially intended purpose that had been assigned (see Allison 2005); it was fluid.[106] Literature on the study of Late Antique houses, even in Egypt, has emphasized the multi-functional character of non-elite dwellings: from shifts in the room uses depending on the grey area between public and private spaces within the house (Cribiore 2015: 149, 159),[107] not having definite spaces for specific activities within the house but carrying out said activities where needed without a location restraint (Costello 2014: 97, 105–6; Huebner 2016: 166), private houses that were flanked by storehouses and workshops but which were also employed to carry out businesses (Bagnall 1993: 48; Wilfong 2002: 11), to a blend of commercial, craft manufacturing, and domestic activities within the same buildings (Rodziewicz 1984: 332). One room could be used for convivial events and also for serious public affairs (Cribiore 2015: 156). The spaces usually dedicated to these endeavours were on the ground floors, which took advantage of the 'valuable commercial space along the street' (Putzeys and Lavan 2007: 83; Yegül and Favro 2019: 264).

Accordingly, the term multi-functionality acquires a broader reach in this context, incorporating workspace in house space. The co-existence of work activities, such as craft manufacture, and living spaces in domestic realms was not unusual even in earlier times: some crafts (such as pottery, ceramic, faience/pigment, glass, and weaving small-scale productions) were carried out in the main city of Amarna, either next to or within houses (Bard 2008: 178–179; Kemp 1989: 309). Even the houses of Deir el-Medina displayed evidence of small private businesses, with the front rooms used as shops, workshops, and beerhalls (Smith 1972: 710).

Purposing a defined space for various activities can be deemed an efficient use of space (Rodziewicz 1984: 331), and it can offer insights into the intricate character and nature of the very building. It is also very telling of the socio-economic situation of its inhabitants; the need for multi-purpose spaces can be related to situations where space is limited or unavailable.[108] One must also consider that the choice of making spaces activity-specific is relatively modern (Plimpton and Hassan 1987: 448). Thus, there are several facets to multi-functionality. It can be associated with the use of space, where a specific area —from a room to a smaller space, such as a closet, up to an unenclosed, open-air area like a courtyard— intended for a specific purpose is used or later repurposed, for other activities (Bowes 2010: 20). Likewise, multi-functionality can also relate to the realm of activities within a set space, not merely the originally intended aim of space and the eventual use for multiple or different purposes (Allison 2005; Berry 1997a; Nevett 2010: 97–113). Studies on material culture assemblages show that spaces figuratively and literally associated with specific functions may not have been used to carry out those functions but others (Costello 2014: 105).

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[106] One of the meanings of the adjective fluid is 'flowing or moving readily; not solid or rigid; not fixed, firm, or stable' (Oxford English Dictionary).

[107] Cribiore (2015: 159) asserted that the evidence from House B1 in Amheida emphasised how the dichotomy between public and private space in the house was not sharp at all since the same space could function in a variety of ways and could be used for different tasks.

[108] '[…] also necessary to recognise a flexible use of space in the ancient houses. Obvious in houses of modest size' (Tang 2005: 176).

This consideration of the house as a work area should also incorporate unwaged —or poorly retributed— housework fundamental for the wellbeing of the inhabitants and the execution and progress of their daily life (see Oakley 2018 for a sociological analysis of housework). Perhaps it is worth shifting our focus to another question: when have houses *not* been places of work? While this consideration has recently become a worldwide topic due to the Covid-19 pandemic, it has long figured in feminist discussion (Lonzi 1982) regarding domestic work.[109] Feminist anthropology is indicated as a pivotal contributor to the interest in household archaeology and theories of social practice (Tringham 2001: 6928). Indeed, the second wave of feminism, which began in the early 1960s but stretched for two decades, is bound to have affected this (Fryer and Raczek 2020: 11).



Figure 161 A quote exhibited on a store window in Alexandria, Egypt. The quote was mentioned in a 1955 episode of the American television series 'The Honeymooners' and subsequently included in Helen Plotz's (1982) 'Saturday's Children: Poems of Work' (Personal photograph I. Hinojosa Baliño 2014).

[109] 'La parità di retribuzione è un nostro diritto, ma la nostra oppressione è un'altra cosa. Ci basta la parità salariale quando abbiamo già sulle spalle ore di lavoro domestico?' (Lonzi 1982: 18). Equal pay is our right, but our oppression is something else. Are equal wages enough for us when we already have hours of domestic work on our shoulders? (my translation).

Figure 161 intends to remind us of the significance of housework. Even in current times, housework is not entirely perceived as a job itself as it is taken more for granted within the family sphere (Bird 1999: 33–34). On the contrary, maintaining a household includes gaining the means to support it and tending to its everyday needs, from food preparation and cleaning to upkeep. Housework is constituted by repetitive tasks carried out routinely; the most necessary ones are performed daily, whereas some can be executed with a lesser frequency. As such, the whole household is involved in the mechanism that ensures its sustenance. I aim to point out that the house, aside from being a safe and familiar realm for a group of individuals, is also a workplace for some, if not all, of them; therefore, I will not enter into the discussion of division of labour. Besides, the lack of specific information on the inhabitants would not allow a detailed assessment but would necessarily have to resort to parallels from other studies (for instance, Koltsida 2007; Meskell 2005) and would not bring anything additional to the table.[110]

The contexts immediately outside are a continuation of the house 'outside the house.' To quote Anne-Claire Salmas, 'the *street* is an extension of a home,'[111] which is reflected in the creation and use of courtyards. Due to the preserved stratigraphy, the courtyard and the architectural additions provide more evidence of the activities that took place there than those inside. The additions denote an organisation of space that was influenced by the necessities of the people of the house, which presumably were the ones utilising the space, possibly contemporaneously with other neighbours; this makes courtyards social workspaces that can be used for activities closely linked to the house management (such as food preparation) as well as other tasks related to livelihood. A series of small-scale craft activities were suggested: secondary glass production and bone crafting alongside food preparation. Furthermore, the Third Building was used as an animal pen at some point.

Cooking was an activity that could be carried out either inside or outside (see Boozer 2016: 178, 198). Indoor cooking facilities can be found in the Dakhleh Oasis: room 5 of House B2 at Amheida (Boozer 2015a: 92) and room 1 of House 1 at Kellis (Hope 1988: 167). The presence of small hearths suggests food preparation in the courtyard, which would not have been an unusual choice (Arnold 2003b: 52; Brooks Hedstrom 2017: 188; Davoli 1998: 47 specifies that it was common in both Pharaonic and Graeco-Roman contexts; Husselman 1979: 49–50). The remains of six hearths were identified in the courtyard, though they were not all contemporarily used; they were circular, either lined with fired or mudbricks; one was enclosed within a pseudo-circular mudbrick structure (oven H4) and another within a small, open room (small room H2), both of which form part of the Southern Addition to the house (see *Section 3.3.5 – Southern addition*).

[110] Boymel Kampen (1982) and Knapp (2011: 83–5) reflected on the artistic representation of working women of the Roman period, often portrayed in mythologised or allegorical contexts, seemingly in a way as to convey that well to do women would not have been involved in 'labour.' The depictions contrast with papyrological evidence from Egypt denoting that women of the Ptolemaic and Roman periods were engaged in non-agricultural economic activities (Rowlandson 1998: 245–79).

[111] Salmas said this during her contribution to the EES series 'Being Egyptian: What is Domestic Space?' that took place on April 27, 2021.

The hearths used for cooking were for vessels and could be distinguished from those used for secondary glass production due to differing amounts of burnt deposits, the former having a far lesser quantity than the kilns. Given the different temperatures required for these distinct activities, as well as the hearths' position closer to the house than that of the kilns, the hearths were probably cleaned regularly to avoid accumulations; on the other hand, the kilns exhibit a pattern of usage, clearing that included dumping the pulverised burnt residues around it, flattening, and recreation that resulted in multiple, overlapping phases (see Figure *81*). The fact that burnt waste accumulations were left around the kilns but not the domestic hearths could indicate a different perception of the area compared to the courtyard where meals were prepared rather than the use of a different fuel (see Arnold 2015 on waste management in domestic spaces). It could also indicate that the kilns would be left on fire for more extended periods than the domestic hearths.

The only wooden remains recovered from Unit 4 were charred twigs, often found associated with the hearths of the courtyard and the investigated glass kiln (Figure 162 and Figure 163). These findings suggest that small portions of wood were used to fuel the fires, though perhaps they were more suitable for starting, rather than maintaining, them. Nowadays, the ovens of the inhabitants of the villages in the Nile Delta are fuelled with crop residues and animal dung. This material is readily available to farm animal owners. Animal (cow and buffalo) dung cakes are an excellent option as they make for fuel that can be effortlessly lit and will maintain a steady flame for a prolonged period: they are also easy to make and store well —like on the roof or in areas around the house— since, contrarily to expectation, they do not smell and do not appeal to insects nor snakes (Barnard and Kristoferson 1985: 85, 87). As a benefit, they allow the disposal of animal waste efficiently. This type of fuel was also used in antiquity (Barnard and Kristoferson 1985: 40–41; Cagle et al. 2016: 209), and it was probably the case also for the hearths of the Late Roman house. The twig remains could represent what had been used as kindling (Charles 1988: 112). In addition to dung, chaff and garbage could also have been used as combustible material (Bagnall 1993: 41). Wendrich (2000: 266) wrote that old basketry, no longer usable, probably was used as fuel for ovens, kilns, and fires.

Another aspect of dung cakes used as fuel is that they generate smoke when lit, which then proceeds to decrease as the fire gets going; in Northern and Central India, it has been observed that the recurrent inhalation of cow dung smoke can lead to heart failure associated to chronic lung disease ('cor pulmonale') (Barnard and Kristoferson 1985: 86–87). The inconvenience of the smoke can be bypassed by carrying out cooking in open-air spaces or using portable cooking fixtures; this factor is of particular interest when related to the archaeological remains, as cooking was performed in the open courtyard of the Late Roman house. Ethnographical evidence shows that cow dung cakes can also be used in the smelting industry (Barnard and Kristoferson 1985: 91). It may not be inaccurate to propose that the same fuel used for the house hearths could be used for the kilns of domestic workshops.



Figure 162 Hearth in the Southeastern Courtyard with charred wood remains (F4184-F4188).



Figure 163 Hearth (F4209) in the Oven H4, part of the house's Southern Addition. Charred wood remains are visible and pink burnt deposits.

The Southeastern Courtyard's organisation should be compared with the Northwestern Corner of the unit, the area immediately west of the amphorae storage building (*Section 3.3.12 – The*

northwestern corner). The latest recordable phase of use included two small square spaces enclosed by two courses of mudbricks; the preceding phase of use exhibited a construction similar to those termed small rooms of the house's Southern Addition. The activities undertaken in this open space, in both phases of use, are not clear: one of the small spaces, enclosed by mudbricks only on two sides, could have been used for some burning activity as it bore layers of reddish colour indicative of burning, while the other, which did not bear burnt remains and was entirely enclosed by mudbricks on all sides, could have been used for other purposes, (possibly as a storage bin, though this deduction is related to the presence of the storage bin H3 in the house's Southern Addition). The small space of the preceding phase of use might have had a similar function as the Small Rooms of the Southern Addition, given that it presented the same architecture (two small walls joined at a 90-degree angle). The limited extent reached by the excavation in that area does not allow further suggestions about the context. Notwithstanding, it seems clear that the Northwestern Corner had been intended for open-air activities. Based on the fact that the context was contemporary to the house's latest recordable phase of use, it demonstrates a trend that involved the modification of space through the implementation of small structures for specific objectives. The retrieved data is not sufficient to say whether the individuals who used this space were those operating in the amphorae storage building; courtyards could be shared, especially if the space between buildings was limited.

The eastern addition to the house signified a marked change regarding the organisation of the outside area. If the southern addition appears not to intend to occupy much space —it was almost squeezed between the house and the Third Building— the eastern one takes a portion of space that either became available or was appropriated by the house's inhabitants. The wall delimiting Room D to the south was built over oven H4, which indicates that the new configuration of the courtyard did not fully include the southern addition, at least not that oven. In fact, the presence of a hearth (F4127+4132) within the courtyard outside the eastern addition and less than two metres south of the location of oven H4 could represent a replacement for the oven. The use of the eastern addition is also vague as the floor level was not preserved, but it is improbable that it had been an expansion of the house's living quarters. These additions remind us that house life is not confined to domestic walls but can expand outside.

4.3.2.2 – Glass workshop

There was a prominent presence of glass shards, including 48 fragments of glass bangle bracelets, within the material culture of the latest phases of use of the house compared to the investigated earlier ones, which could be correlated with the presence of the glass kilns. Glass[112] shards were recovered

[112] The glass finds of Kom al-Ahmer are currently under study.

throughout the unit (see Appendix to Chapters 3 and 4, Artefacts). In contrast, most bracelet fragments were found outside the buildings, as in the case of the bone hairpins.

Overall, glass had become more available in Egypt since the Ptolemaic period. Despite it being less represented within material culture assemblages due to its fragility and the fact that it was often recycled, it has been suggested that glassware was more widespread than ceramic finewares in the Roman period; this has been proposed concerning the small quantities of finewares retrieved from Roman period contexts when compared to the quantities retrieved from contexts of earlier and later periods, which led to suggest that other materials, such as glass, were being used more widely (Rathbone 2007: 714). Recent studies on Late Roman glass from Bubastis (Eastern Nile Delta) showed that the assemblage did not include imported material from outside Egypt despite the settlement's integration with the Mediterranean trade network; additionally, there was no evidence for low-lime glass compositions coming from Wadi Natrun despite the proximity (Rosenow and Rehren 2014: 182–83), instead there was a preference for HIMT glass, a typology called like this due to the high amounts of iron, manganese, and titanium contents (Freestone 1994), made of locally sourced materials (Rosenow and Rehren 2014: 181–82). Concerning Upper Egypt, analyses of Late Roman glass from Armant showed that new glass-making techniques were being developed and that there was a higher reliance on locally-produced glass than imported one (Rosenow and Rehren 2018: 317–18). Susak Pitzer's thesis on Karanis glass included ethnoarchaeological approaches to understand the *chaîne opératoire* of glass manufacturing and what Karanidians considered to have been the value of glass (Susak Pitzer 2015).

Glass is one of — if not the most — recyclable materials. It was not uncommon to recycle glass vessels and objects rather than using raw material; this was a practice attested in the Roman world and is considered a reasonable possibility for Egypt (Freestone 2015: 29; Nicholson 2007: 4). Installations for secondary glass production would be constituted by small-scale furnaces and accumulations of glass waste, cullets, trails, crucible fragments, and deformed vessels (Foy and Nenna 2001: 40–66; Keller 2005: 65–67; Putzeys and Lavan 2007: 87). Egypt had raw materials for glass production (Nicholson and Henderson, 2009, p. 197), and glass lingots would be exported to other Mediterranean countries; however, it does not look improbable that the already existing material would be recycled, especially when considering the easily breakable nature of glass. Besides, manufacturing glass objects with recycled raw material would have been a favourable choice for small producers as it would have drastically reduced costs (Stern 1999: 463–4). Only two glass droplets, which would have occurred from melting the raw material for moulding, were found within Unit 4; this is a relatively low number if the kilns had been used to produce first-use glass objects. The absence of slag from the kilns at Unit 4 fits the glass recycling interpretation,[113] where slag would not be produced.[114] According to Susak

[113] While slag could be produced from the heating of the kiln's sides, the absence of the superstructure of the kilns and the impact of the sebakheen pit on the kilns does not allow to corroborate this.

[114] There is still some uncertainty regarding glass workshop functions, but this depends on the difficulties in assessing glass production sites (for instance, it has been debated whether the kilns at Amarna had been intended for primary and secondary glass production (Nicholson 2007: 128–30)). Ultimately, chemical analysis on the glass shards retrieved at Kom al-Ahmer

Pitzer's ethnoarchaeological investigation, the furnaces' maintenance and preparation involved removing glass, slag, and corroded portions (Susak Pitzer 2015: 61; Taylor and Hill 2008).

The glass kilns on the premises of Kom al-Ahmer's Late Roman house would have been circular (it cannot be confirmed as the sebakheen pit truncated them) and were skirted with mudbricks. The cooking hearths associated with the house were also circular, but the skirting was in fired bricks. Another difference was that the kilns contained a considerably higher amount of burnt remains than the hearths. This disparity may have depended on the necessity of cleaning the domestic ones more often or on the use of different fuels (more on fuels in *Section 4.3.5 – 'Absentees' in the material culture*). Similar kilns to those of Kom al-Ahmer were detected at Antinoopolis: three small circular kilns, not larger than one metre in diameter and up to 0.29 cm in depth. The kiln sides did not present traces of glass remains (Silvano 2015: 245), and the absence of raw glass, glass droplets, and deformed vessels indicates secondary glass production (Silvano 2015: 246). A 3rd-century mudbrick glass furnace was identified at the site of Tell Timai in the Eastern Delta (Gentelli and Medhat 2017: 332). ATR-FTIR spectroscopy and SEM-EDS analyses confirmed its use as a furnace specifically for glassmaking. The furnace has been interpreted as a secondary production workshop that probably employed glass ingots imported from Wadi el-Natrun and recycled glass (Gentelli and Medhat 2017: 333–5). Remains of glass kilns have been investigated at Kom el-Dikka; some were circular and lined with fired bricks (Majcherek 2007b: 26). Other glass workshops of a similar date have been investigated at Beni Salama, in the Wadi Natrun area; the latest phase of this production activity has been dated to the 2nd century CE, but the evidence points towards a continuation from the 2nd century BCE (Nenna 2015: 18). The workshop was for primary glass production, and the furnaces were large, with tanks up to seven m long (Nenna 2015: 6). Another well-known site, albeit of a different temporarily than that of the case study of this thesis, where the glass was worked was Amarna, with circular mudbrick kilns; the remains exhibited layers of slag, at times embayed on the sides of the kilns (Nicholson 2007: 40).

Though glass workshops would have constituted a fire hazard, they could still be located in urban centres; Stern (1999: 458) mentioned this concerning the finding of a Byzantine glass workshop in a central location within the settlement of Bet She'an (Gorin-Rosen 1998) and deduced that the positioning of glass kilns in the Eastern Mediterranean sites might have differed from that of Northern Europe. Putzeys and Lavan (2007: 86) listed sites where small-scale kilns were detected in central areas of the settlements (Scythopolis, Beirut, Ephesus, Aphrodisias, Delphi, Rome. and Ostia). Therefore, the glass kilns within the Late Roman neighbourhood at Kom al-Ahmer do not represent a blatant disregard for the neighbours' wellbeing but the possible existence of a tolerated small-scale glass production. This possibility is emphasised if we consider that the workshop activity may not have occurred on a regular basis but during specific periods —for instance, during the inundation period. What is more, the

would help clarify this interpretation, as has been shown in the study of Late Roman recycled glass at Carthage by Schibille, Sterrett-Krause and Freestone (2017).

excavation unit offers a limited view of the residential sector's situation and there may have been other activities carried out by the neighbours.

Therefore, glass seems to have been part of the commercial endeavours of the neighbourhood; although glass finds were also retrieved from the other excavation units of similar dating (Late Roman, Byzantine) investigated in the central part of the site, the number of glass finds is considerably lesser.[115] The contexts of the central mound differ in nature from those of Unit 4 (refer to *Section 1.4.1 – Overview of the site*) (Kenawi and Marchiori 2019a, 2019b), but they attest to a consistent presence of glass remains; this seems to support that the higher quantity of glass in Unit 4 may be related to production.

Figure 164 shows the ratio of glass finds retrieved from the contexts of the excavation unit. The percentages denote that glass was more present in the Late Roman layers than in the earlier ones. Shards were found consistently within buildings, but higher quantities came from the open contexts.

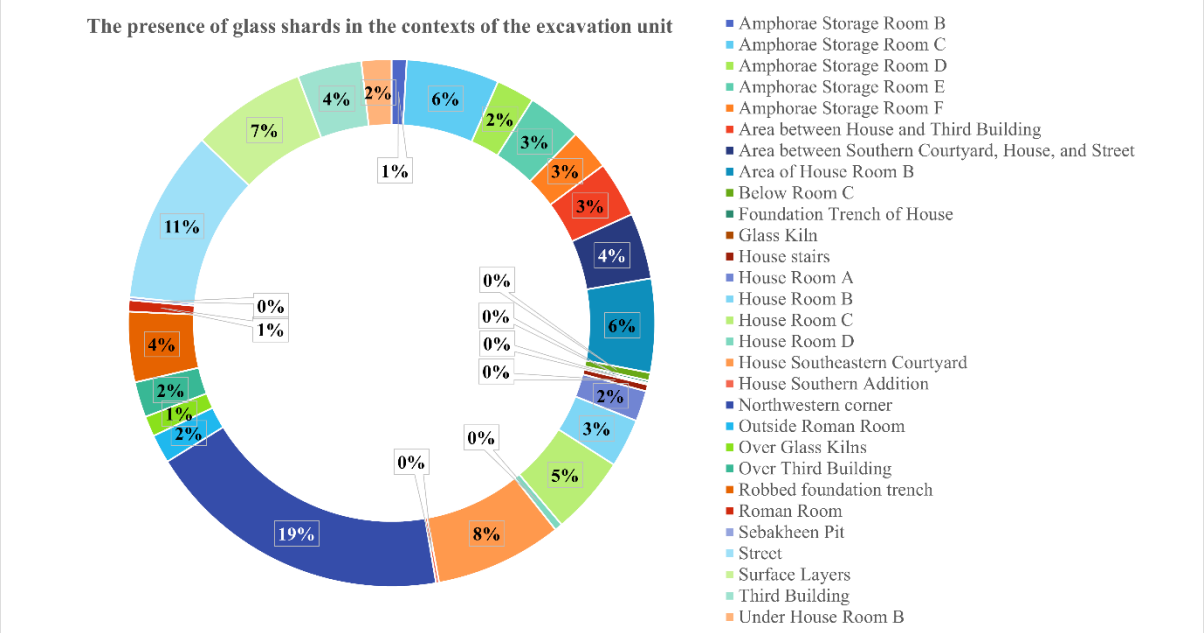


Figure 164 The pie chart shows the percentage of glass shards found in the contexts of the excavation unit. The list includes all the contexts from which glass shards and finds were retrieved; therefore, the contexts presenting 0% of glass presence denote minimal quantities.

The same calculation was carried out for the glass bracelet fragments; like the hairpins, bracelets formed part of a category of personal objects linked to personal adornment. The pie chart in Figure 165 denotes that bracelet fragments were not found in the contexts earlier than the house, similarly to the glass shards. Like the hairpins (see next section), the bracelet evidence was retrieved from the open areas, such as the southern courtyard; few were found inside the buildings.

[115] Around 230 shards in Unit 1 and 410 in Unit 2 compared to approximately 2700 glass shards from Unit 4.

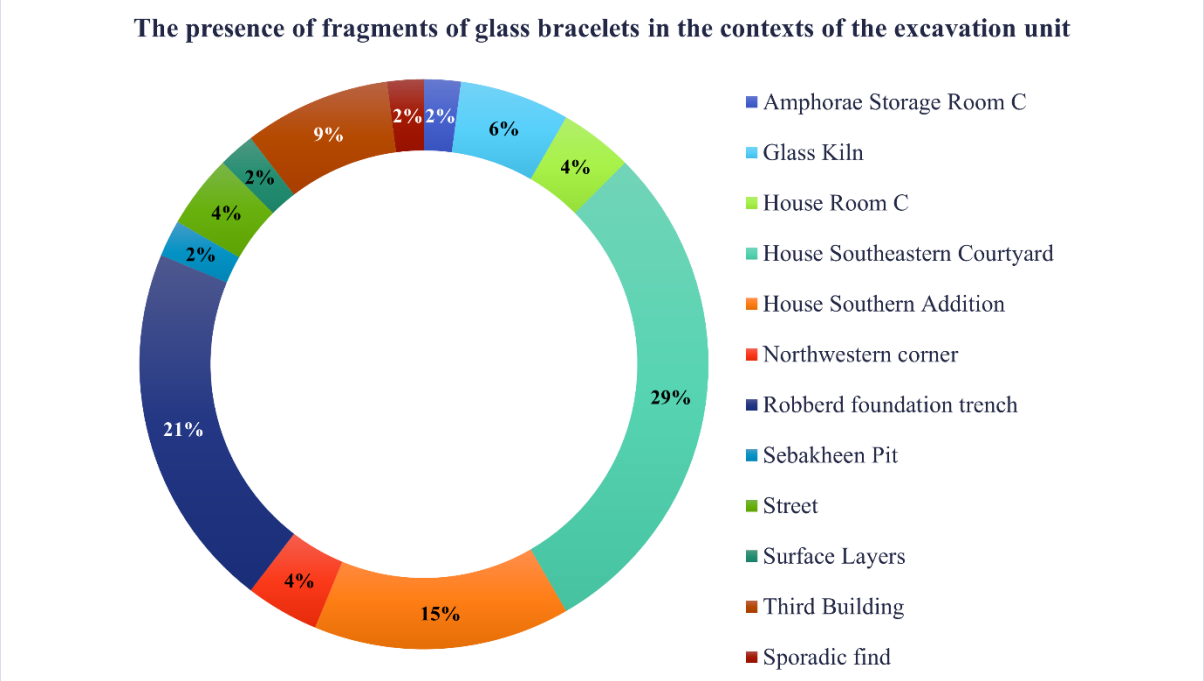


Figure 165 The pie chart shows the percentage of glass bracelet fragments found in the contexts of the excavation unit.

4.3.2.3 – Bone workshop

Regarding bone carving, parts of worked bone objects, as well as bone carving debris, were recovered from the contexts of the excavation: 70 fragments in total, 42 of which were found in the contexts of, or adjacent to, the house, 5 in the deposits over the street. 4 inside Room B, 1 in Room C, 3 in the Third Building, and 4 in the surface layers. As such, 25 fragments of worked bone were retrieved in the areas immediately outside the house, of which 37 were fragments of hairpins, while the other fragments seemed to be parts of objects or fittings (maybe for furniture). The ratio of bones found per context is illustrated in Figure 166. The majority were retrieved from the latest phases of occupation.[116] The rest mainly came from the same areas that yielded the hairpins, thus maintaining a congruency. Bone waste and fragments of finished and unfinished carved bone indicate bone carving workshops (Putzeys and Lavan 2007: 102). The *in situ* position of several of these bone fragments was registered, and the plotted results show that they were scattered. The registered positions may indicate that the working of bones occurred in the house's premises, namely the southwestern courtyard; however, the lack of a possible cluster that could designate a more specific work area or a discard zone could also suggest that the

[116] Two hairpins (b4289), the dice (b2329), and a ring (B4285) were found in the Roman context below Room C, whereas three hairpins (KAO 5, KAO 22, and b1479), and three worked fragment (KAO 32 and b1585) were collected from the robbed foundation trench F4126.

fragments may have been thrown out from the house and possibly kicked around/redistributed in the courtyard (see Figure 167).

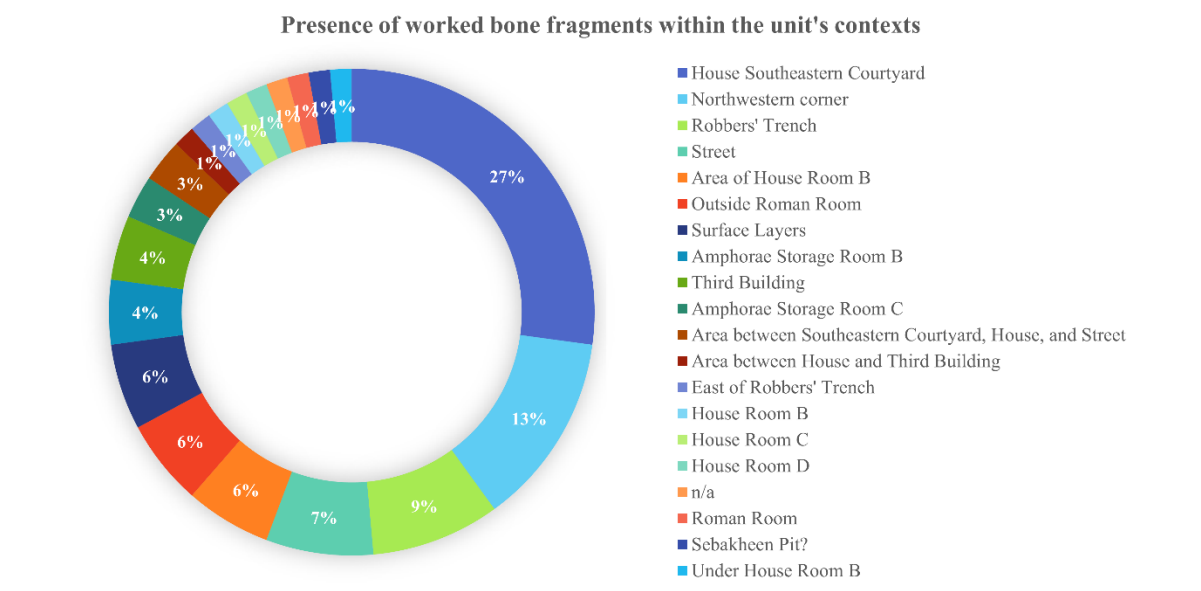


Figure 166 The pie chart shows the percentage of worked bone finds recovered in the contexts of the excavation unit.



Figure 167 Plan indicating the registered in situ position of some of the worked bone finds. The plan includes only the finds encountered within the Late Roman contexts associated with *Subphase 3* and *Subphase 4*.

According to the study of the faunal remains (see Appendix to Chapters 3 and 4, Faunal Remains), the area of Unit 4 could have been a butchering area (Bertini 2019: 317); therefore, the uncooked bone would have been readily available to be employed in the manufacture. Bones that are discarded due to having little flesh and marrow are ideal to be worked (Krzyszkowska and Morkot 2000: 327). Evidence for bone workshops is scant (Krzyszkowska and Morkot 2000: 328–9), but the presence of bone carving debris (Figure 168 and Figure *169*), including parts of bones that could not be used, has begun to be considered evidence for bone workshops (Bianchi 2013: 105), even if no specific shop or building has been identified, for instance at Halusa (Palestine) (Goldfus and Bowes 2000: 186) and in Rome (St. Clair 1996: 371). At a bone workshop in Sagalassos (Turkey), used in the 4th century and abandoned in the early 5th century, most half-finished products were hairpins (De Cupere, Van Neer and Lentacker 1993: 269, 271).[117] The finds from a bone workshop complex at Qantir-Piramesse,

[117] De Cupere, Van Neer and Lentacker (1993: 272–73, 76, figure 5) also discussed the bone working process for radio-ulane, which is overall applicable to all long bones. The methodology involved the cleaning and degreasing of the bones attained by sawing off the ends and boiling the bones; then the artisans would saw off the bones according to the length required, removing

associated with the armoury for the chariotry of Ramesses II, allowed researchers to identify the various productions phases of bone craftsmanship, from raw materials processing to the results (Prell and Kitagawa 2020).[118]



Figure 168 b1503, bone carving debris from the excavation unit. Note the cut saw marks upper right.



Figure 169 b1751, bone carving debris from the excavation unit. Note clean slice through the length of the bone.

and discarding the irregular and curved shapes. A regular and flat piece of bone would have been the desirable result from which objects could be carved.

[118] Abrasive slabs made of phyllite were found among the stone finds. Prell and Kitagawa (2020: 41) reported that phyllite objects had not been documented elsewhere in Egypt. A fragment of worked phyllite (KAO 111) was recovered from the robbed foundation trench. The stone identification was made by Dr Benjamin Pennington.

4.3.2.4 – The amphorae storage building

The house's southeastern courtyard bore traces of some activities related to the socioeconomic character of the inhabitants that represent small-scale production possibly associated with the profession of some of the inhabitants. The activities varied from those that would not have required a specialised facility (the bone carving) to those that needed to be assigned a dedicated space (glass working). In addition to this, more activities were going on in the neighbourhood. The amphorae storage building is the only other structure of the Late Roman sector that was fully exposed, whose remains have been investigated down to the floor level and can offer a perspective of comparison for the house.

The building was on the other side of the street, opposite the house. The amphorae storage building was larger than the house;[119] it had two more rooms —of variable size— and wider walls[120] (see *Section 3.3.11 – The amphorae storage building*). A larger footprint and wider walls technically imply a higher quantity of mudbricks. It can be assumed that the building would have had at least one upper storey, possibly more given the walls' thickness, and a space that could have been reserved for a staircase. The high number of amphorae found *in situ* on the ground floor leaves little doubt about the understanding that the ground floor was devoted to the storage of empty amphorae, possibly cleaned up —as several amphorae were found up-side-down— and stowed to be re-used (perhaps even re-cycled). The venue was employed for commercial endeavours linked to the re-use of the containers (Figure 170, Figure 171, and Figure 172); thus, the possible upper storeys would have been used for other purposes.

[119] The former had a footprint of 134.385 m², the latter's footprint was 90.254 m².
[120] Average width of 1.30 m for the former, and an average width of 0.80 m for the latter.



Figure 170 View of the amphora storage building's Room C with amphorae in situ.



Figure 171 View of part of the amphora storage building's Room E with amphorae in situ.



Figure 172 View of part of the amphora storage building's Rooms E, F, and B (east to west) with amphorae in situ.

It cannot be said what kind of other purposes would have been carried out upstairs: like the house, no collapsed walls nor roof remains were encountered during the excavation, meaning that the upper remains had been removed entirely. Nonetheless, there was no evidence suggesting there had been any plans to erect another building. The fact that the amphorae were left in situ indicates that the structure had not been cleared of its contents fully, but it does not suggest what happened to the building after its use.

Following the comparison between the amphorae storage building and the house, some specific disparities and similarities could be noted in the existing material culture (see Figure 186Figure 185). It must be specified that the material culture assessed for this comparison was solely that retrieved from within the buildings; the artefacts present in the outside spaces were not considered because the street represents a venue that may not have been exclusive to the inhabitants of individual buildings but may have been shared with neighbours. While the southeastern courtyard has been associated with the house's latest recordable phases of use, the relationship between the amphorae storage building and the northwestern corner is unclear.

Regarding similarities in the material culture, the presence of finds of more personal nature such as beads, glass bracelet fragments, rings, and worked bone were of similar proportion. In contrast, there were several discrepancies. The amphorae storage building yielded one tiny fragment of a figurine (KAO 38); the house bore seven fragments of different figurines (see Appendix to Chapters 3 and 4,

Small Finds). The amphorae were the most evident one. Though the house presented less faience evidence than earlier contexts (at both Kom al-Ahmer and Kom Wasit), it yielded about 100 small fragments of faience in contrast to 3 from the amphorae storage building. Lamp evidence was also scant in the amphorae storage building (two fragments), but this consideration is deceptive in the context of Unit 4, as small dishes were used as lamps.[121] If anything, it shows that the users of both buildings used dishes to light the interiors.

An additional difference was noted in decorative elements: no single fragment of plain or painted plaster was retrieved from the amphorae storage building, contrasting with the quantities retrieved from within (and below) the house. The absence of painted plaster fragments from every context of Unit 4 aside from the house is also a strong indicator of the different use made of the buildings. Plastering, specifically of fine quality, is often associated with residential buildings (see Ellis Jones 2007: 273, 278 for an example of identifying domestic spaces within 5th-4th century BCE workshops in Attica).

Two hundred and thirty-two amphorae were found in the storage building (in the excavation seasons between 2014 and 2019) (Figure 173) (Asolati et al. 2020: 41–43). They attest to importations from the Nile valley and Mediterranean regions and highlight the involvement of the settlement in trade activities (Mondin 2019: 165) (see Figure 174). 173 amphorae were Late Roman Amphorae 7 (LRA 7)[122], which were produced along the Nile Valley (Dixneuf 2011: 154–173; Peacock and Williams 1986a: 204–205; Pieri 2005: 129–132); 32 amphorae were Kellia 172, Bi-tronconique tardive or Amphore Égyptienne 3 tardive (AE 3T),[123] produced in Egypt, most likely in the Delta (Dixneuf 2011: 138–142; Egloff 1977: 114; Pieri 2005: 128–29); 12 Late Roman Amphorae 4 (LRA 4),[124] from the Palestinian-Jordan area (Peacock and Williams 1986a: 198–199; Pieri 2005: 101–114); 14 Late Roman Amphora 1 (LRA 1),[125] from the southern coasts of modern Turkey (Peacock and Williams 1986a: 185–187; Pieri 2005: 69–85); one prototype of Samos Cistern Type amphora[126] (Arthur 1990; Pieri 2005: 135–136). The specimens of LRA 7 amphorae seem to have been manufactured at different ateliers due to differences in mixtures and surface treatments; the LRA 1 amphorae bore traces of *tituli picti* (Asolati et al. 2020: 42). The study on the *tituli picti* is currently underway. Some of the amphorae types are often associated with wine transport (Mondin 2019: 68–69).[127] These containers from disparate regions within and beyond Egypt attest to the trade network in which Kom al-Ahmer was involved during the 5th century CE.

[121] And at least two, KAP 916 and 927, were found in Room C of the amphorae storage building.
[122] They generally date to the 4th-9th centuries CE (Bailey 1998)
[123] They date between the first half of the 4th century to the end of the 5th century CE (Dixneuf 2011: 139–40; Egloff 1977)
[124] They date between the 4th and 7th centuries CE (Majcherek 1995)
[125] They date between the 4th and 7th centuries CE (Empereur and Picon 1989: 236).
[126] Samos Cistern Type amphorae date between 6th-7th centuries CE (Arthur 1990; Pieri 2005: 135–36), but the prototype from Unit 4 was found in the context dated 425-450 CE (Asolati et al. 2020: 43).
[127] Dixneuf 2011: 138–142, 154; Pieri 2005: 81–85, 110–114, 128–129, 132.

Five ceramic containers of common Egyptian ware were retrieved among the amphorae: three jugs of large dimensions, one pot with two handles (see number 7 in Figure 174), and an anthropomorphic vessel (see Figure 57 in the Appendices); the pot with two handles bore no traces of burning (Asolati et al. 2020: 43), which may imply that it was also used as container.

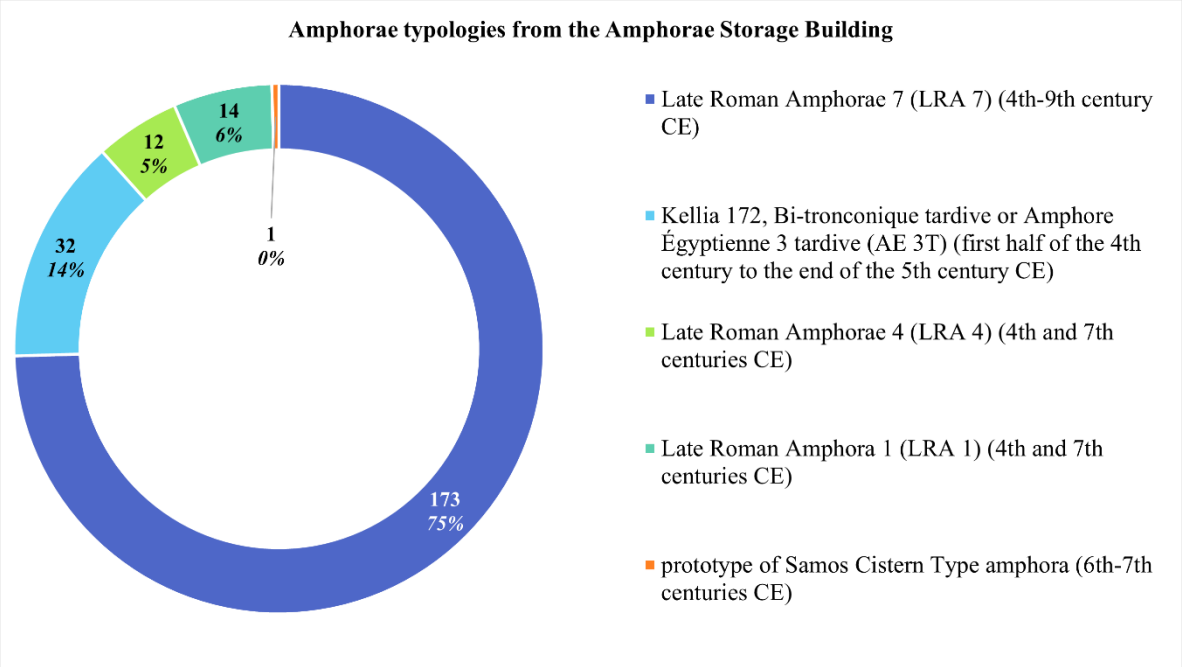


Figure 173 The pie chart shows the number and percentages of amphorae found in the amphorae storage building.

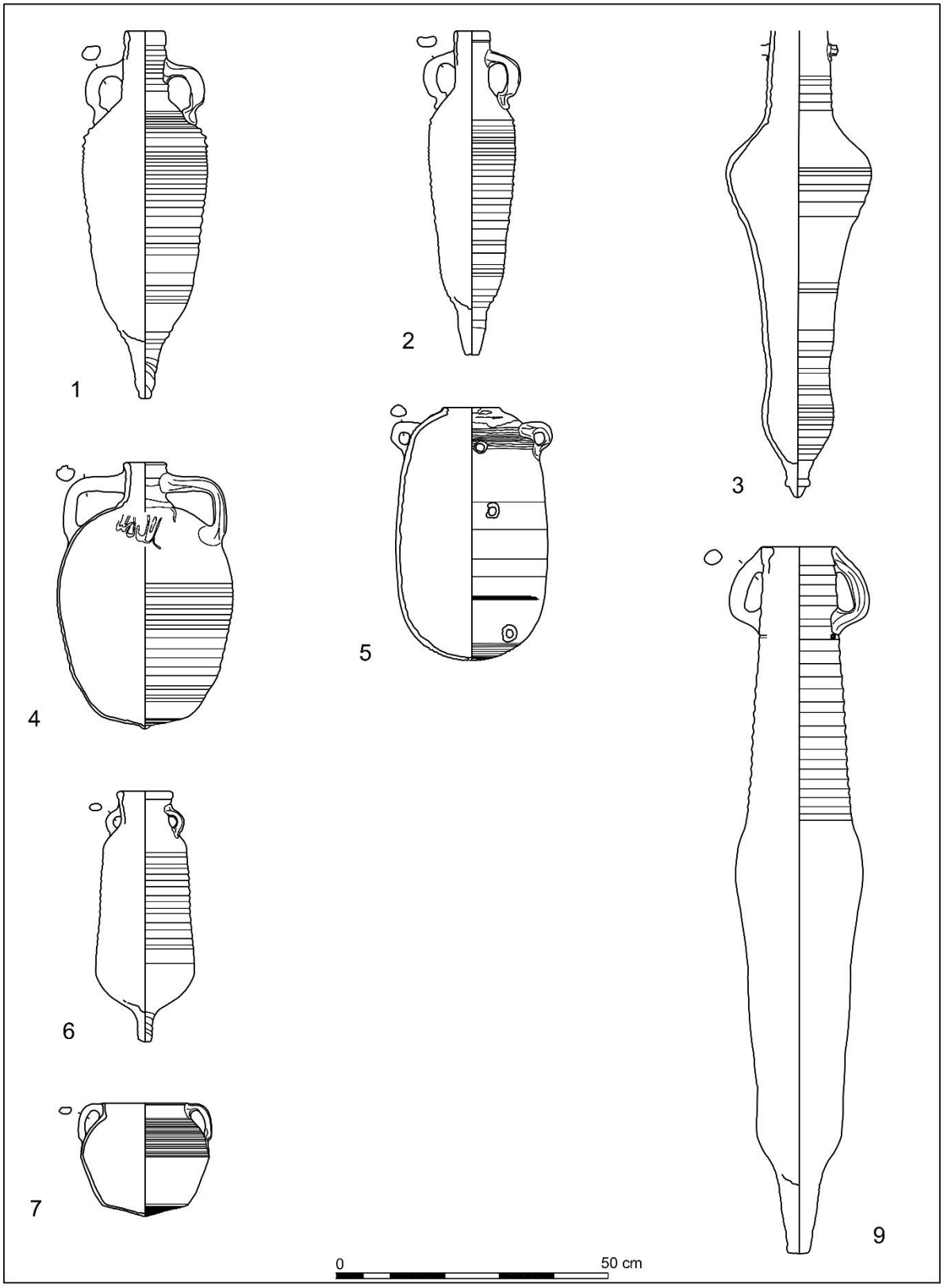


Figure 174 Amphorae types from the excavation unit: LRA 7 (1 and 2); Kellia 172/AE 3T (3); LRA1 (4); LRA 4 (5); Samos Cistern Type (6); pot with two handles (7); Spindle-shaped amphora (9) (Asolati et al. 2020: 24).

Amphorae were some of the most assiduously, variedly, and versatilely reused items in antiquity (Peña 2007: 119–92). Herodotus (1920 3.6.1-2) mentioned the reuse of wine vessels and water containers, thus suggesting that amphorae reuse was practised in Egypt long before the Roman period. Economic factors could have influenced the choice to reuse amphorae since it would have been cheaper than purchasing new ones (Abdelhamid 2013: 102); no production area has been identified at Kom al-Ahmer so far, which implies that getting hold of containers would have depended on trade. Furthermore, they could be employed for various uses besides that of containers: burials, construction, drainage, and planting pots, to name a few. The life cycle of amphorae was assessed by Peña, which categorised it into eight stages: manufacture, distribution, prime use, reuse, maintenance, recycling, discard, and reclamation (Peña 2007: 8–9). It can be inferred that the amphorae in the amphorae storage building were being stowed to be repurposed; it cannot be said whether they would have been recycled too, as evidence for that has not emerged so far. The *in situ* position of the amphorae offers some indications. The upside-down position is indicative of a former use because they were probably emptied and dried as a preparation for secondary reuse, which could have implied another sort of content or that the original contents may have left traces that required to be removed. The presence of a limestone basin (KAO 105) could be linked to the cleaning of vessels. It must also be noted that the largest room of the building (Room C) had one of the least numbers of amphorae, whereas two of the intermediate rooms had been filled with vessels; this could imply that the larger room was used for other activities, perhaps decanting contents into other vessels and selling them, as well as cleaning, drying, and redistribute the vessels.

Parallels of facilities that had areas devoted to amphorae storage were found in Pompeii: they represent possible packaging facilities that reused amphorae, though they date back to a much earlier period than the amphorae storage building at Kom al-Ahmer (see Appendix to Chapter 4, WFH (work from home)) (Berry 1997a, 1997b; Curtis 1979; Jashemski 1967, 1974; Peña 2007). These establishments mainly were housing, but they dedicated some of their spaces to activities linked with the local trade and commerce, another example of the multi-functionality of the buildings.

4.3.3 – Traces of belief, cult, and religion

There seems to be a paucity of material culture related to beliefs, cults, and religious practices. Nine figurine fragments were collected from the entire unit (five in terracotta, two in faience, one in limestone, and one in frit), one limestone altar —or incense burner— and two copper alloy bells (see Appendix to Chapters 3 and 4, Artefacts). Compared to the other domestic contexts excavated at Kom al-Ahmer and Kom Wasit (albeit of earlier periods) (see Furlan, Kenawi and Wilson 2019a), there is an evident decrease in such objects. While this could depend on the preservation of the context and possible

later intrusions, the other contexts also consisted of the remains of ground and/or underground level(s), and objects relating to personal beliefs were retrieved.

Most figurine fragments are small, and it is challenging to associate them with specific parallel examples (see Appendix to Chapters 3 and 4, Artefacts). There are four recognisable specimens: an incomplete amulet of Harpokrates or Horus the Child (KAO 39) (Furlan 2019: 298), which was found within the upper layers of Room B (Figure 175); an incomplete amulet of an anthropomorphic depiction of Nefertem (KAO 40) (Furlan 2019: 298), which was found in the surface layers of the southeastern courtyard (Figure 176); a faience statuette of a human left foot on a plinth (KAO 41) (Furlan 2019: 298), found lying over the levelled surface in Room B (Figure 177); an unidentified four-legged animal whose findspot was in the deposits related to a hearth of the house's southeastern courtyard (b1869) (Figure *178*). The first two are linked to Egyptian religion. They are both child gods of distinct divine triads: Harpokrates represented the Hellenised rendering of Horus the Child, part of the Graeco-Roman triad with Isis and Serapis and related to the theme of fertility and fecundity (Boutantin 2014: 132–33), whereas Nefertem formed part of the Memphite triad with Sekhmet and Ptah (Barrett 2016: 388; Bárta 2016: 771).



Figure 175 KAO 39, incomplete amulet of Harpokrates, or Horus the Child, in blue frit; broken in half at the perforation level.



Figure 176 KAO 40, incomplete amulet of the anthropomorphic depiction of Nefertem, in painted limestone.

KAO 41, a statuette fragment in faience depicting a human left foot standing on a plinth, was found lying over the beaten earth surface in Room B, which positions it securely within the context of the room. It is difficult to advance an interpretation regarding whom it represented due to its fragmentary nature, but it has been suggested that it could relate to representations of Serapis. According to Castiglione (1971: 31–2), monumental statues of independent feet would be placed in sanctuaries to represent the Serapis.[128] Foot engravings were also commonly found in temples and were interpreted as having been produced by clergy members in an attempt to remain in the presence of the deities (Boutantin 2014: 105; Yoyotte 1960: 59). Concerning the domestic contexts, four foot engravings in limestone blocks were found in individual houses at Memphis and Karanis (Boutantin 2014: 104). Boutantin (2014: 106) suggested that they would have probably been displayed in niches or spaces within the houses dedicated to cult.

[128] For further information on this topic, see Castiglione 1974; Malaise 1978.



Figure 177 KAO 41, incomplete faience statuette: a human left foot standing on a plinth.

The figurine of the four-legged animal could represent a dog or a horse (Figure 178) (see Appendix for parallels); either option could have been used as a toy or placed in a house shrine for protection (Bailey 2008: 175). The figurine has few details; it is incomplete as it is missing its front left leg and bears damage to the snout and ears; given its findspot, within the deposits of the courtyard hearths, it could be suggested that it had been discarded —if part of a house shrine— or left behind —if it had been a toy—. The veneration of animals was common in Egyptian religion, and it seems to have been something that persisted in Roman Egypt, too (Abdelwahed 2012: 207; Bell 1948: 82–97). The issue of discerning whether a figurine was intended to function as part of the domestic cult or as a toy is not uncommon, and its intricacy has often been discussed (Boutantin 2014: 129–132; Mota 2011: 76; Quirke 1998; Stevens 2009: 3; Tooley 1991).



Figure 178 b1869, a terracotta figurine of a four-legged animal, possibly a dog or a horse.

The other finds that could be related to votive beliefs were primarily recovered from the deposits of Rooms B and C; none were found in Room A, which seems to have been the room dedicated to commercial activities, not to mention it was the only room of the house facing the street. The lack of superstructure does not allow one to infer whether any of these rooms had been equipped with a niche (see Husselman and Peterson 1979: 47–8 for examples of house niches at Karanis). A limestone altar (KAO 126), or incense burner, was found in the filling deposits of Room B (Figure 179); as with the other findings, it is difficult to gauge whether it was there because it had been part of the room's, or the house's, assemblage or whether it was part of the fill coming elsewhere. If we presume that it had been part of the house's assemblage, it could have been related to a ritual activity (Furlan 2019: 304); miniature altars were among the items related to domestic shrines, and incense burning was practised in the 4th-5th century Egypt on a domestic level (Frankfurter 1998: 63, 135, 167).



Figure 179 KAO 126, limestone altar or incense burner; this side seems to bear the remains of carved decoration that was not present on the other sides.

A copper alloy bell (KAO 179) was found in one of the amphorae storage building's rooms (F). A second bell (KAO 178) was recovered from one of the surface deposits covering the northern wall of the building (Figure 180). Furlan (2019: 294) noted that bells could have been associated with apotropaic customs; however, the difference in the size of the two specimens suggests that they had different functions. This building yielded one tiny figurine fragment (KAO 38) (Figure 181) from the same room as one of the bells.



Figure 180 Copper alloy bells retrieved from the contexts of the amphorae storage building: KAO 178 (to the right) and KAO 179 (to the left).



Figure 181 KAO 38, a fragment of the right hand of a faience figurine.

The hairpins provide stylistic evidence, and while most could be categorised as having plain and globular ends, some specimens bore decorations of figural motifs: a possible pine cone (KAO 16 and b1779) (Figure 182 and Figure 183) and a hand holding a spherical object (KAO 4) (Figure 184). Hairpins functioned as accessories but could also be attributed cultic significance depending on the finial depiction: the hand clutching a spherical object,[129] which could have been an apple, egg, or globe,

[129] Parallels of the Roman period have been found elsewhere in Egypt, for instance at Gurob and Shurafa and other unprecised localities (Flinders Petrie 1927, plate XIX, n. 26, 54, 56, and 58).

has been interpreted as relating to the action of offering a votive gift (Berg 2021: 127; Bianchi 2013: 108; Eckardt 2014: 171–3), whereas the pine cone has been associated to religious symbolism (Bianchi 2013: 105), immortality (Eckardt 2014: 170), and possibly fertility (Berg 2021: 131–2), though pine cones were not native to Egypt and their depiction, and eventual meaning would have been imported from elsewhere. If anything, it shows a possible local appreciation for styles coming from outside Egypt.



Figure 182 Fragment of a hairpin (KAO 16) with an oval tip resembling a pine cone (Furlan 2019: 296).



Figure 183 Fragment of a hairpin (b1779) with an oval tip resembling a pine cone.



Figure 184 Upper portion of a hairpin (KAO 4) with carved hand holding a spherical object (Furlan 2019: 295).

It is possible that one or more ground floor rooms were used for work activities related to the sale of goods or craft manufacturing. In that case, it is possible that belongings of a more personal nature would have been stored elsewhere, as on the upper floors, or in the room(s) that would have been more shielded, with less direct access from non-household members. Depiction of deities in Ptolemaic and Roman Egypt is frequently found within domestic contexts, most often as terracotta figurines (Boutantin 2014: 106; Flinders Petrie 1905: 28 in the case of the 4th-century houses of Ehnasya). In this case, the paucity of specifically recognisable cultic materials could reflect the commercial nature of the Late Roman house's ground floor, as in the case of the amphorae storage building. Additionally, the fact that the house was levelled to make space for the construction of a new building meant that the house's contents, particularly objects of value, whether sentimental or monetary, were probably removed beforehand and what was left behind, we can assume was discarded either due to damage or disinterest. After all, all these finds, except for the altar or incense burner, were found broken or incomplete.

The limited and fragmentary condition of the finds makes it challenging to infer the religious preference(s) of the inhabitants, particularly because the two figurine fragments that could be identified seem chronologically out of place: Nefertem does not seem to have been worshipped much in the Roman period, and Furlan (2019: 298) noted that parallel examples all dated to the Ptolemaic period. Since the Nefertem amulet was recovered from superficial layers, its association with the house's context is not secure; the Harpokrates' findspot in Room B was within the possible 'coin floor.' which correlates it to the house, but Furlan (2019: 298) dated the figurine to the 4th century, earlier than the house's *Subphase 4*. It seems that both figurines were residual finds. Regarding evidence for Christianity, Van Minnen (1995: 52) noted that much of the material culture associated with level A (5th century CE) in Karanis bore Christian symbols. At Kom al-Ahmer, no finds directly related to

Christianity were found from the contexts of the house and the nearby buildings; the pottery[130] did not present any Christian symbols, and neither did the painted plaster fragments bear traces of depictions that could recall religious scenes (unlike examples from Karanis, Kellis, and Kom el-Dikka).

No archaeological evidence for Christianity has yet been unearthed at Kom al-Ahmer; buildings for worship have not been archaeologically detected yet, either for the Late Roman or the earlier or later periods. Nevertheless, the historical investigation considers the possible identification of Metelis with Kom al-Ahmer during the Late Roman period (see *Section 2.4 – Kom al-Ahmer in the Late Roman period*), with the Coptic written sources mentioning bishops of Metelis for four different dates: 325 CE (Kronios), 431 CE (Makarios), 482 CE (Ioanees) and 743 CE (Victor) (Eller and Kenawi 2019: 3). According to the date of the documents, there would have been a part of the population who was Christian.

In this sense, and in contrast with Karanis, it has been suggested that the lack of evidence in the Kom al-Ahmer house could point to Christianity. Christianity had steadily grown in momentum by the 4th century, Nicean Christianity had been established as the official religion of the empire towards the end of the century (Humfress 1999: 490), and Pagan worship had been interdicted in 391 CE (Leadbetter 2000: 286), though there was a certain degree of tolerance (Tilden 2006: 281). Churches seem to have become widespread; Van Minnen (2007: 213–14) referred to the Historia Monachorum in Aegypto, according to which Oxyrhynchus had at least twelve churches by the end of the 4th century CE, a number which increased in later centuries (Ruffini 2018a: 4), and that even small settlements such as Aphrodite had multiple churches. The increase in the number of churches gained momentum from the end of the 5th century onward (Papaconstantinou 2012: 205). Concerning an overall picture of Egypt between the 4th and 5th centuries, quantification attempts were carried out by Bagnall (Bagnall 1982, 1987) and Depauw and Clarysse (Depauw and Clarysse 2013) by calculating the percentage of Pagan and Christian names mentioned in written documents. Their results suggest that by the beginning of the 5th century CE, roughly 60% of the population in Egypt was Christian. The plotted figures and the generated logistic curve indicate a gradual increase in the use of Christian names throughout the 4th and 5th centuries (Bagnall 1987: 248–49; Depauw and Clarysse 2013: 432–33).[131] By the 6th century Egypt 'was probably at least as Christian as any premodern culture could be' (Frankfurter 2018: 5; Ruffini 2018a: 4), and the processes leading to this occurred during the two preceding centuries.

It might not even be surprising that the household's religious orientation might not be as evident as one could expect given the reputation of Late Antiquity as a transitional period, or rather a time of

[130] Only fragments of lamps were recovered and they overall pre-dated the contexts' chronology (see Appendix to Chapters 3 and 4, Artefacts).

[131] Bagnall's first attempt to analyse the spread of Christianity during the 4th century CE acknowledged the relatively small sample used and the large margin of error. The initial results indicated a quicker spread of Christianity than originally anticipated, suggesting that a fast conversion rate resulting in striking majority of the population being Christian by the start of the 5th century CE (Bagnall 1982: 121–23). Nevertheless, the analysis was rerun a few years later following the change of date of one of the documents used (the *Skar Codex*, whose date was corrected from 388 CE to 463 CE) (Bagnall 1987: 248–49) and the results decreased from 90% to 60%. This same approach was later used by Depauw and Clarysse on a larger dataset of 4th and 5th century names: their results concur with Bagnall's 1987 calculations (Depauw and Clarysse 2013: 432–33).

change. It is compelling to look at Frankfurter's analysis of the Christianisation of Egypt, viewed as a complex process —constituted by multiple simultaneous processes correlating with local traditions— instead of a 'historical achievement or monolithic cultural institution' (Frankfurter 2018: 6). Frankfurter (2018: 15) explained the cultural process of syncretism as essentially Christianisation and the continuation of local religious practices; for the new religion, this would have been an essential process as it interfaced and acclimatised within the local milieu and as it would adopt local practices and expressions, often linked with social interactions, as it was being embraced and expressed by the locals. Outcomes of syncretism could be the decline of traditional cults and the Christianisation of local practices[132] (Frankfurter 1998: 33–36, 2018: 8), resulting from the negotiation between the earlier local cults and practices with those of the new religion.

While the imperial decrees had their consequences —for instance, from the decline of temples (Bagnall 1993: 54, 263–64; Frankfurter 1998: 27–30) to the decrease in the production of particular items, such as the funeral masks and paintings in the Fayum (Dunand 1979: 30–31)— local domestic practice in the cities and villages was less affected and domestic cultic activity kept embracing 'popular gods of protection and fertility' and popular culture (such as magic) also as a way to maintain ties with their own social identity (Bagnall 1993: 274; Brown 1978: 91–2; Frankfurter 1998: 27, 131, 144; Liebeschuetz 1995: 195; Maguire, Duncan-Flowers and Maguire 1989: 32; Ritner 1998: 27; Russell 1982: 544–45), also demonstrating a degree of pragmatism (Lee 2001: 37). The Nile provides an example: in Graeco-Roman times, the river-god Neilos was associated with the flood (Blouin 2012; Tallet and Zivie-Coche 2012: 442), and there seem to have been multiple Nile cults. The festival of the Nile continued to be celebrated even in Roman times (*P.Oxy*.XLIII 3148 records an order to supply wine for the festival celebrations). These cults can be interpreted as long-standing ritual practices closely associated with agriculture and economy, thus the country's survival, and even having a 'national character,' embedded within popular culture to the point that they survived in Coptic culture (Frankfurter 1998: 45; Parsons 2007: 101 P.Turner 10 and P.Lond.Lit 239 provide examples of how the Nile was regarded in the 6th and 7th centuries CE).

Religious syncretism, vital for the enrichment, transformation, survival, and transition of creeds (Frankfurter 2018: 15–20), allows finding avenues for people to unite, often by linking narratives and imagery through appropriation or embracement.[133] According to this, the objects could potentially also have formed part of the belongings of a Christian household. Harpokrates and Nefertem are both child gods of distinct divine triads and could have been linked with the Christian child cults (Brooks Hedstrom 2019: 677). Harpokrates himself is an example of religious syncretism as it represented the

[132] An interesting example is provided by the abbot Shenoute and his approach towards the annual flood of the Nile, which he claimed to control in order to appropriate the symbolic value of the inundation, something that was deeply embedded within local customs spanning back to the Pharaonic period (Bonneau 1964: 436–37; Papaconstantinou 2012: 208–09).

[133] The domestic realm was not only considered as a new religious scene, transitioning from an interregional priestly centre to the regional, local, and ultimately domestic venue (Frankfurter 1998: 143–144), but also as a locus for unsanctioned religious groups, even Christian ones (see Maier 1995).

Hellenised rendering of Horus the Child (Barrett 2016: 388). Regarding the foot, Maguire *et al.* (1989: 68) wrote that in the 4th-7th centuries CE, images of feet would be considered to bring good luck and protection and that they were used by both Pagans and Christians. Concerning carved bone manufacture, plaques exhibiting decorations of Greek mythology and classical themes were still produced in Alexandria in the 5th and 6th centuries CE even though their manufacturers seem to have been Christians (Alston 2001: 115; Kiss 2007: 200).

Overall, given the complete lack of Christian-related finds and the presence of fragmented figurative objects linked to local cultic images, the evidence would seem to lean towards Paganism as the household's religious preference; however, the fact that some of the findings may be residual and long pre-date the contexts does not make this suggestion secure. Yet, it cannot be excluded that the figurative objects expressing pre-Christian local cultic images could have also been used by a Christian household given the circumstances of religious syncretism within Late Roman Egypt. Though scarce, the finds from the Kom al-Ahmer house are a testimony of belief that may have formed part of domestic cultic practices performed in that house. The same consideration applies if they may have been memorabilia, as sentimental value forms part of one's identity. Considering that they may have garnered some meaningful value, it is also possible that they may have been removed by the occupants when the house was vacated. It is worth highlighting that the case study house does not represent the whole settlement's situation but is a nuance. Investigating more houses in the same sector is necessary to deepen the topic, particularly in relation to the abandonment of houses and the variety of material culture left behind.

4.3.4 – Comparing the finds from the house, the amphorae storage building, and the Roman room

Another way to compare the contexts and buildings is by quantifying the associated material culture. Thus, it was decided to undertake an exercise inspired by Penelope Allison's analysis of the material culture of the Pompeian households (Allison 2005). The exercise compares the presence and absence of material culture within the features of the identified contexts.[134] Compared to Allison's work, this exercise is of small scale as the number of investigated buildings at Kom al-Ahmer is still somewhat limited; nonetheless, it provides a preliminary overview of the differences in material typologies depending on the contexts.

Some considerations need to be addressed regarding this exercise. Firstly, it must be noted that not all artefact categories were quantified in the same way during post-excavation processing —some were counted (number of pieces or fragments), some weighed, and objects were measured— and it is

[134] The contexts are the house, the house's southern addition, the southeastern courtyard, the Third Building, the amphorae storage building, the northwestern corner, the Roman Room, and the space outside the Roman Room.

not possible to compare quantifiable data efficiently across material categories. Secondly, there is an inherent bias when evaluating a fully excavated room against one that was only partially investigated or an open-air context, as well as a purposefully filled context and one that still retained layers with more explicit traces of the activities undertaken there, not to mention those contexts explored above the floor level against those explored below the floor level. To carry out the exercise whilst bypassing these biases, it was decided to account for the presence and absence of finds in features; for instance, if one or more coins were found in a given feature, a value of 1 would be added to that feature. The value increased depending on whether coins were also found in other features of the same context. Here is an example: say there was a context, such as a building, whose excavation had identified 20 features; if coins were retrieved from 5 of these features, then the value of 5 will be assigned to that feature concerning the material culture category of coins. Therefore, the figures assigned to the finds categories do not represent the quantitative and qualitative characteristics of the finds but their occurrence in features. Even so, there subsists a degree of bias since contexts with a higher number of detected features are more likely to have higher quantities of material culture than contexts with fewer detected features (though not necessarily).

Additionally, a higher number of features can be associated with activity, whereas fewer features can be related to abandonment or absence of activities. To reduce the bias, it was decided to present percentages calculated for each context individually. The formula used to calculate the percentage is: (value/total value)×100%. The value of each finds category was divided by the total number of features of the context, and the result was multiplied by 100; this calculation allowed to obtain the percentage of the occurrence of that particular finds category within that specific context, avoiding the result becoming biased if calculated together with a context that had fewer or more features. The resulting percentages were collated in a colour-coded table; the percentages can be viewed as Boolean data types; they intend to show whether the finds were present or absent. In this case, the values of the percentages show the degree of presence of finds within contexts selected for preliminary comparison (Figure 185).

	Late Roman House	House Southeastern Courtyard	House Southern Addition	Amphorae Storage Building	Third Building	Roman Room
Animal bone(s)	85%	90%	100%	86%	65%	69%
Bead(s) - faience	0%	0%	8%	14%	0%	0%
Bead(s) - glass	0%	7%	0%	0%	0%	0%
Bead(s) - stone	0%	0%	0%	0%	0%	0%
Bone (hairpin)	9%	20%	0%	29%	12%	0%
Bone (object)	6%	13%	0%	29%	6%	4%
Coin(s)	62%	57%	23%	100%	47%	12%
Faience	56%	3%	8%	14%	6%	15%
Figurine(s)	18%	3%	0%	14%	0%	0%
Fired bricks	71%	37%	62%	86%	53%	38%
Glass (diagnostic and non-diagnostic glass shards)	79%	87%	54%	86%	59%	35%
Glass bracelet(s)	6%	33%	23%	14%	18%	0%
Iron nail(s)	53%	53%	15%	86%	18%	35%
Lamp	41%	7%	0%	29%	6%	15%
Metal (copper alloy) fragments	53%	33%	15%	86%	12%	12%
Metal (iron) fragments	12%	7%	8%	14%	0%	12%
Metal (copper alloy object)	15%	10%	0%	14%	0%	4%
Metal (iron object)	21%	0%	8%	0%	0%	4%
Mortar and plaster	76%	23%	15%	0%	0%	50%
Mudbrick(s)	24%	13%	0%	29%	18%	23%
Object(s)	3%	3%	0%	0%	0%	0%
Organic remains	6%	23%	31%	43%	24%	0%
Painted plaster	68%	13%	0%	0%	0%	19%
Pottery	88%	93%	100%	100%	76%	92%
Rhizoconcretion(s)	12%	0%	0%	0%	0%	8%
Ring(s)	6%	17%	0%	29%	0%	4%
Shell(s)	76%	67%	46%	86%	6%	65%
Slag	88%	67%	31%	86%	35%	46%
Stone (building material)	44%	3%	0%	29%	6%	35%
Stone (object)	32%	3%	8%	57%	6%	4%
Stone (pebbles, cobbles)	29%	37%	31%	57%	41%	38%
Wood	3%	3%	0%	0%	0%	0%

Figure 185 The presence and occurrence of finds (expressed in percentages) in the contexts of the Late Roman House, the Amphorae Storage Building, the Third Building, and the Roman Room. The intensity of the colour provides a visual guide with regards to the degree of occurrence, ranging between none (white), low (light green), medium (green), and high (dark green).

Figure 185 compares the material culture of the four buildings that have been explored so far. The table allows for a general analysis of the fluctuations of the occurrence of finds; though it does not consider further information provided by the study of finds, it delivers an overview with the potential to detect possible changes. The juxtaposition of four separate contexts can be viewed as a sample, a 'test trench', which can provide some insights into how the contexts were used and can also help trace patterns related to the continuity of use of specific materials in different periods as well as the occurrence of finds in specific areas. This method only accounts for the preserved finds, and thus it does not consider the material culture that may be missing due to environmental issues rather than removal (see *Section 4.3.5 – 'Absentees' in the material culture*).

What can be noted is the persistence of certain finds and the decrease of others. Finds related to consumption, such as animal bones, pottery, and shells, maintain consistency in presence, though it is interesting that shells were almost absent from the Third Building, which resonates with its use as an animal pen.

Stone objects were more common in the house and amphorae storage building than in the other two buildings. Unworked stone fragments and fragmented mudbricks appear consistently instead of stone as a building material, barely found in the Third Building. Fired bricks seem to be more widespread in the Late Roman than in the Roman period. Painted plaster, and mortar and plaster in general, was exclusive to the Late Roman house and the Roman Room, though the latter had presented far lesser quantities.

Regarding containers, faience seems to have been a prerogative of the house, whereas glass, though present in all contexts, appears to increase in the contexts related to *Subphase 4*, which included the glass kilns. On the other hand, glass bracelet fragments are not found much inside the buildings, the majority having been retrieved from the outside contexts. The same occurs with bone hairpins, though the results indicate that more worked bone was found in the amphorae storage building instead of the house. In general, all finds related to personal adornment (including beads of any material and copper alloy rings) were found more prominently outside than inside buildings.

Concerning the metals category, coins occur much less in the Roman Room than in the later contexts. Metal objects appear to be more common in the house than in the other contexts; on the other hand, the amphorae storage building exhibited a higher presence of iron nails and copper alloy fragments, which could be correlated to the fact that it was possible to excavate the deposits lying over the floors as opposed to those below. The paucity of metal finds from the Third Building could relate to the penning activities, where softer materials may have been preferred (for instance, ropes instead of chains to tie the animals). Slag is found consistently in all contexts, but more often inside the house and the storage. Slag has been associated with dumping activities (see Appendix to Chapters 3 and 4, Artefacts), and the fact that it was also consistently found in the storage rooms may hint that it had also undergone dumping activities, either related to abandonment or as a protective layer against insect intrusion.

It is interesting to notice that the finds categories that show a more prominent distribution are those directly related to the subsistence of the area's inhabitants, specifically to the activities inferred during the excavation of the contexts. The high quantity of animal bones is most likely a by-product of the diet preferences, but then we should also bear in mind that they represented the raw material for the worked bone workshop. Glass was also part of the workshop activities and is preponderantly present in the contexts related to the *House main phase – subphase 4*. The distribution of the coin category, as shown in Figure 185, is particularly striking: just by looking at the figure, it would be possible to suggest that the amphorae storage building —at least its preserved remains— had a commercial vocation and that the house remains and those of the southeastern courtyard had also been involved in transactions. I am not trying to push the interpretative agenda but solely observing that this exercise of exploration of the finds' distribution could be a helpful tool for representing the finds in a succinct and illustrative way that facilitates the comparisons between contexts.

Overall, the comparison between the contexts is a helpful method to engage with a large set of data preliminarily, and it can allow inferring aspects regarding the presence or absence of finds (for a comprehensive table of all the contexts see Appendix to Chapters 3 and 4, List of artefacts). The exercise can be a tool to gauge inconsistencies or outliers that may be worth exploring more in detail. We can observe how the results change when comparing the house with its associated external spaces: the southeastern courtyard and the southern addition. Finds variety is less prominent in the restricted area of the southern addition, whereas the southeastern courtyard results indicate that finds of personal adornment (hairpins, glass bracelets, rings) were more common than in the deposits of the house. Most of the finds are fragments of objects, and their presence is residual; nonetheless, the discrepancy can be correlated with the workshop activities that were likely carried out in the courtyard.

4.3.5 – 'Absentees' in the material culture

Paul Veyne wrote 'a dwelling was above all an empty space' (Thébert 1987: 316) when referring to the Roman house. This statement can easily be applied to the archaeological remains of the case study house, which yielded limited quantities of finds. Nevertheless, the absence of material culture indicates that either it could not be preserved —especially in the case of organic material— or had been physically removed.

The categories of finds provide an overview of the material culture retrieved from within the house, the contemporary surrounding areas, and the previous context below it. The material culture ranged from objects of everyday use, furnishings, material productions, and materials related to architecture and construction. While the presence and use of these artefacts concerning the context are discussed throughout the thesis, it is equally pivotal to highlight the absence, or scarcity, of other typologies of finds that can be commonly found in domestic contexts. Both incidence and dearth of

artefacts can help gauge insights into the lifestyle of the inhabitants of the buildings. An interesting example has been that of painted plaster, fragments of which were retrieved almost exclusively from within the house's rooms. In contrast, they were completely missing from the amphorae storage building and the other contexts overall, thus remarking a will or a necessity to decorate dictated by commercial needs or personal tastes and economic opportunities. The finding of a few fragments of finds related to material culture, as opposed to building materials, can easily be related to the abandonment of the building, by which objects of interest and daily use would have been taken out prior to the demolition.

The complete list of the material culture from Unit 4 can be found in Appendix to Chapters 3 and 4, List of artefacts.

4.3.5.1 – Textiles

Textile products could have figured in the Late Roman period house in the form of clothing but also as furnishings such as curtains, hangings, mats, cloths, and bedspreads; less wealthy houses would have had a limited range, often confined within specific rooms (Swift, Stoner and Pudsey 2022: 224). No textile remains were encountered in the case study house. The wet environmental conditions of the Nile Delta are detrimental to the preservation, making it unusual to find textile remains. Even so, textile finds were often removed from houses to be reused elsewhere, for instance, in grave contexts (Swift, Stoner and Pudsey 2022: 225). Artefacts linked with textile production (such as loom weights and spindle whorls) were also lacking. It has been argued whether two fragments of objects (KAO 31 and 286) could be remains of rudimental awl (in bone and iron, respectively), but they may as well be bone carving debris and an iron nail, respectively. The finds' locations were within the robbed foundation trench and east of it, thus close to the domestic sphere. The lack of tools is interesting since textile production and maintenance have been regarded as widespread in the Romano-Egyptian house according to both archaeological and papyrological evidence (Boozer 2022: 112–16), which could have been used to create textile commodities for personal use, implies that clothing and textile goods would have been purchased from specific areas in the city if certain areas had covered specific trades. Papyrological evidence from the Roman period has indicated that clothes were more likely to be purchased (Rathbone 2007: 709), possibly due to a developed textile industry based within cities (Bagnall 1993: 82).

House 3 at Kellis (Dakhleh Oasis), inhabited during the 4th century CE, provides an example of a house involved with the textile industry (Bowen 2015). The archaeological data included scraps of unspun wool (dyed and natural), spindles, and spindle whorls from Room 2; other finds associated with textile activities were loom parts, such as a piece of palm rib, possibly used to maintain the warp in position since it bore notches at regular intervals, fragments of weavers' combs, a possible shuttle, a

wooden needle with a knotted yarn, and a prepared warp (Bowen 2015: 234). Furthermore, the data encompassed seventeen Coptic and five Greek documents relating textile business (Bowen 2015: 235).

The absence of textile-production tools from the case study house cannot easily be explained. It may be related to the household's focus on different sorts of craftwork, but it may be too simplistic to narrow it down to this. Textiles may not have been produced, but they could have been repaired, which may account for a relatively small number of tools. The abandonment process may have included removing these tools, which may be why they were not retrieved as discarded material. Regardless of the explanation, what can be taken by this is that textile production may not have been carried out in all houses as part of customary household activity.

4.3.5.2 – Wood

The paucity of wood, particularly remains of wooden architectural elements rather than wooden objects, is noteworthy. Wood was used in mudbrick architecture in specific instances, such as for doors and window shutters (Wilfong 2002: 11), jambs, thresholds, and stairs (the frame for the stairs) (Davoli 1998: 140–41), as support for the upper floors (Husselman and Peterson 1979: 37), and also to strengthen the corners and foundations of the walls of houses, the latter was seen mainly in houses from the Ptolemaic to Late Antique periods (Arnold 2003a: 246; Spencer 1979: 98–103). The absence of wooden remains might be related to the environmental conditions; other areas of Egypt yielded better preservation to the point that taxonomic identification could be carried out on objects and architectural features (Vermeeren 2016). Some contexts at the nearby Kom Wasit yielded several fragments of wood, among which some specimens bore signs of burning (Furlan, Kenawi and Wilson 2019a: 120–121), as well as the remains of a wooden naos decorated with metal and pigment (Furlan, Kenawi and Wilson 2019b: 175).

The absence of wooden architectural features can be associated with the planned demolition of the house. Some scholars (Kemp 2000: 82; Lorenzon et al. 2020: 111) have pointed out that building materials such as mudbricks could be re-used in other structures or recycled to make new mudbricks. The same happened to wood, especially since there were lesser quantities of it: written evidence from the New Kingdom includes the timber accounts from Memphis, which recorded an inventory of wood parts —from old ships— that were owned by officials, attesting both the officials and administration's interest in the material (Brand 2010: 2; Kitchen 1975, 1994); Cooney (2017) analysed the reuse of 21st dynasty wooden coffins; Creasman (2013) discussed the reuse of ship timber in the Pharaonic period, a practice that was carried out also in the Roman period, with evidence from Berenike of the reuse of ship timber in the construction of houses (Vermeeren 2000: 340–41).

Therefore, it is plausible that the absence of wooden construction materials —perhaps for floors?— is a consequence of the planned demolition of the house, by which the collapsed materials

were removed to prepare the grounds for the placement of what eventually became the robbed foundation trench. It is plausible that there would also have been objects fabricated from wood that were removed or did not preserve.

4.3.5.3 – Faience

Though faience cannot be categorised as one of the 'absentees', the quantities were very minimal compared to contexts of earlier periods (for finds retrieved from the nearby Kom Wasit, see Furlan, Kenawi and Wilson 2019a, 2019b). The majority of pieces were small fragments, possibly of containers, ranging from a light blue to a light yellowish colouring (Figure 186 and Figure 187); they were all found in poor conditions, and the great majority were retrieved from the interior of the domestic buildings, namely the house and the Roman Room (see Figure 65 in the Appendix). The contexts from which the faience residual finds were collected denote that they were used prevalently within dwellings, most probably as containers as a few diagnostic fragments imply. The minimal quantities could suggest that it was not a kind of material preferred by the house's inhabitants, but was this choice dictated by personal taste, financial possibilities, a lack of necessity, or unavailability?

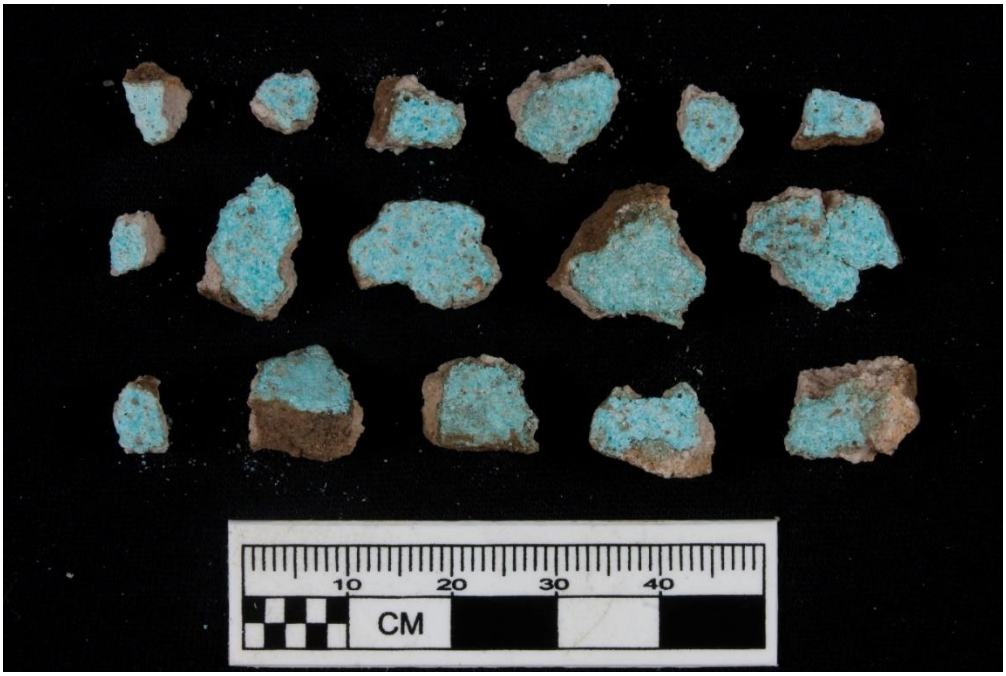


Figure 186 Fragments of faience retrieved from the area of Room B (F4014).

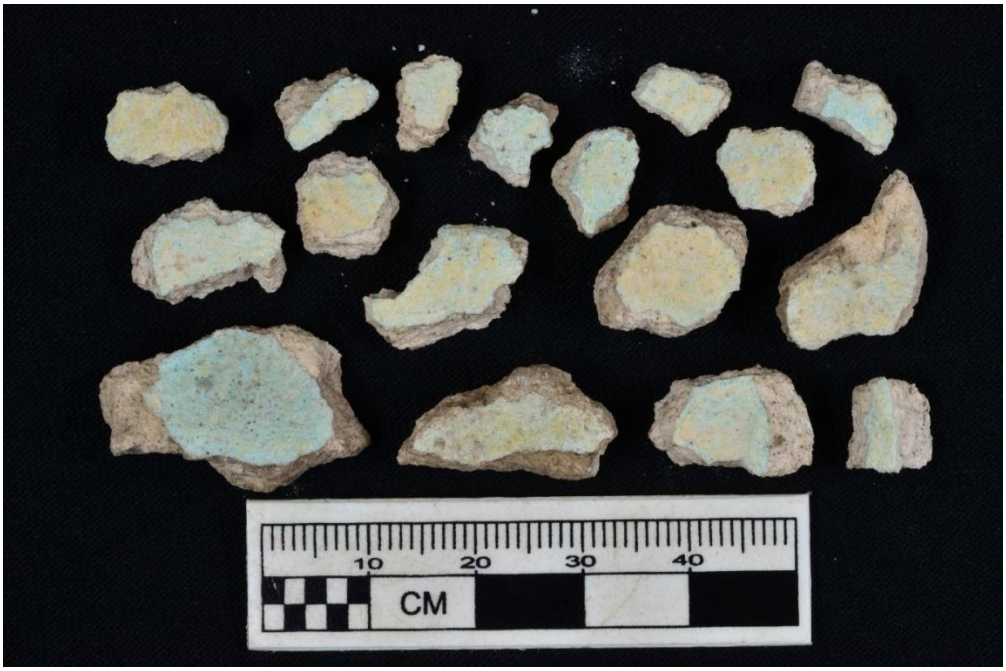


Figure 187 Fragments of faience retrieved from Room C (F4219).

It has been noted that faience finds of the Roman period —over the different regions of Egypt— have been retrieved in significant quantities; this shows that it was commonly produced (Nenna and Seif el-Din 1999: 80) and that there might have been specialised manufacture closely associated to that of pottery (Nicholson 2012; Nicholson and Nenna 2013: 133). Regarding faience and terracotta figurines, they began to be fabricated with mass-production techniques in the Roman period, which had consequences on the quality of the products (Rathbone 2007: 709). So far, faience production in the Roman period has been attested at the workshops of Kom Helul (Memphis) (Flinders Petrie 1909: 14–15; Nicholson 2013), Kom Abu Billo (Nenna and Seif el-Din 1999: 79), and Elephantine (Rodziewicz 2005). Nevertheless, the evidence becomes more blurred for the Late Roman period, either due to lesser evidence or fewer excavated contexts, though the use of Egyptian faience was widespread at least until the 7th century CE (Tajeddin 2014: 85). The faience forms became more utilitarian in the Roman period when compared to those produced in the Pharaonic periods for example at Memphis (Nicholson 2013: 148–49). There were exceptions, at least for the later period: Rodziewicz mentioned the presence of tiny quantities of Egyptian faience from Fustat —Luster ware— in the contexts of the houses of Kom el-Dikka; he describes Luster ware of high quality and reckoned that it could have been used more as a decorative, rather than utilitarian, component (Rodziewicz 1984: 343).

It can be stated that the house's inhabitants probably could acquire/had access to faience goods, as evinced from the fragmentary evidence. The poor quantities indicate that the assemblage would have been small, and it is not possible to comment on the quality of the craftsmanship as the faience from the Late Roman house has not been assessed by a specialist. Given the close relationship between

faience and glass production, it is worth considering the glass remains from the house. One can note that the quantity of glass finds surpasses by far that of faience; a direct quantitative comparison will be possible in the future (the glass from Kom al-Ahmer is currently under study). Among the finds were 48 glass bangles and bracelet fragments, which could form part of the glass materials used in association with the kilns but could also highlight a popularity for this type of jewellery. At Amheida's House B2, Cervi noted ten containers in faience and remarked on the balance between faience and glass vessels, with the former seeming to decrease in favour of the latter (Cervi 2015: 341). Was faience more challenging to manufacture than glass? Faience production involved a *châine opératoire* of various stages (Nicholson and Peltenburg 2000); for instance, the moulding of faience into shape, moving and placing it into the kiln without compromising it, not to mention the application of the glaze, have been described as stressful (Nicholson and Peltenburg 2000: 186–187). Glass manufacture that did not involve the making of glass from raw material could have been less laborious (Nicholson and Henderson 2000).

Could the purchase of faience goods on behalf of the house's inhabitants have been inhibited more by the readily available glass production rather than factors such as cost or personal liking? Or was glass preferred for some other reason, such as aesthetics, functionality, weight? A sensible conclusion is far from being reached; these considerations can be viewed as mere suggestions. There are also other factors to acknowledge: Berg (2019: 228) observed that faience might have an ethnic, Egyptian connotation, and Nicholson (2013: 149) proposed the possibility that faience may have appealed to the native Egyptian population due to its symbolic meaning. Nonetheless, it was also considered that the utilitarian faience vessels could have been to the liking of the non-native population, as the forms would have been reminiscent of Mediterranean styles. These remarks remain food for thought for the time being, but it is interesting to consider them concerning future understandings of the ethnic background of the Late Roman families in Egypt.

4.3.5.4 – Writings

The only finds retrieved from the whole excavation unit, from all phases and buildings, that bore writing of any sort were *tituli picti* written on sherds of LRA 1 amphorae found in the amphorae storage building.[135] No other artefact bearing writing was identified, except for the coins. The presence of the coins, which attests to the commercial activities undergoing on the ground floor of the house, raises questions regarding the accounting of the supposed financial exchanges taking place on the premises. Nevertheless, no written document was retrieved from within and beyond the house. This absence may denote that the house inhabitants either did not require to keep records or annotations or could have

[135] The study of the *tituli picti* of the amphorae found at Kom al-Ahmer is still in progress. The *tituli picti* could indicate information on the original contents of the vessels and/or the producers and shippers (Curtis 2015: 179).

been illiterate, thus eliminating the purpose of keeping notes or recording written information. This deduction seems rather simplistic, especially in the light of inadequate environmental preservation conditions in the Nile Delta, where papyri evidence has almost not survived (Bagnall 1993: 15) if not in carbonised form (Blouin 2014: 45) or mostly retrieved from Alexandria (Yiftach and Vandorpe 2019: 182).

It is essential to consider the state of literacy in Late Antique Egypt. Concerning the period, a decrease in papyri findings has been noted from the 4th and to the late 6th centuries CE, which initially led researchers to suppose that it equated with a fall in literacy (Bagnall 1993: 248), which was further associated with the subjective notion of decadence impregnating Late Antiquity (Wipszycka 1984: 281); however, this circumstance is too easily influenced by environmental preservation and range of excavations. On the contrary, literacy could have slightly increased between the 4th and 7th centuries CE as it would have been required to carry out specific liturgical appointments (Bagnall 1993: 246; Wipszycka 1984: 295). In the case of the case study house, not much can be advanced on the matter; either the written documentation did not preserve or the inhabitants may have not required to keep written records.

4.3.5.5 – Organic materials

Basketry, as in 'objects made of plant parts of limited length often with a shape specific to that particular plant part' (Wendrich 2000: 254), was numerous within the Egyptian dwelling, but they do not preserve in the wet contexts of the Delta due to their organic, perishable nature. They may have also served as fuel. Evidence from Oxyrhynchus shows that baskets were used as containers to dump waste (in that case, papyri), which may explain their absence from contexts with better preservation conditions (Grenfell 1897: 8). No finds of such kind were retrieved from the case study house. Nevertheless, the desertic conditions of many Egyptian sites have allowed for the survival of this category of finds, from which it is possible to draw links with what could have been present also in the houses of the humid Egyptian environments. Contrary to textile production, basketry weaving would not have required a loom or frame (Adovasio 2010: 1). Basketry could be used to create various objects, but the most common were baskets used as containers (Swift, Stoner and Pudsey 2022: 218), which have been deemed as widespread as ceramic containers (Wendrich 1999: 1). Woven plant fibre mats would have figured among the furnishings that formed part of the modest townhouse (Huebner 2016: 169; Swift, Stoner and Pudsey 2022: 222–24). Mats would be used for decoration and comfort. They would have insulated and softened the floor, making seating a more comfortable experience; they were also used as bedding in the more modest houses (Swift, Stoner and Pudsey 2022: 222).

It is plausible that woven plant fibre objects and furnishings would also have been present in the case study house; in this case, the absence of any trace suggesting their presence is probably related to their removal from the premises or the unsuitable preservation conditions.

4.4 – Conclusion

This chapter expanded on the archaeological data presented in Chapter 3 – The case study house first by focusing on the architectural survey of the building remains of the house and secondly on the architectural remains outside the house and the related material culture. It answered the research questions on how the Delta's environment potentially influenced the architecture and management of space of domestic contexts and on what could be inferred of the lifestyle of the inhabitants of a household in a settlement of the northwestern Nile Delta during the early 5th century CE Egypt. One aspect was to see if it was possible to infer the Roman presence archaeologically within a domestic context by evaluating if any cultural trends in architecture and material culture were detectable, which may have transferred to the identity of the Egyptian inhabitants.

The architectural survey could only consider the foundations of the house, which are the only preserved part. Regarding the relationship between the internal and external spaces, the case study house does not allow to infer much about this aspect due to the lack of preservation of doorways and windows, without which the generation of access diagrams is not feasible. These diagrams could have revealed details of the internal spatial organisation and how the inhabitants made it function (space syntax, as developed by Hillier and Hanson 1984), as well as particulars such as which rooms would have been more 'sheltered' and which had direct access to the street or the courtyard. Nonetheless, the foundations are the backbone of a building and can suggest much about the originally intended character of the house. The foundations and the walls were analysed by considering factors like the technical characteristics of mudbricks and the relation between the building and the underlying geology. The conclusions that were reached were that the environment of the floodplain, precisely that of swelling soils, influenced the builders' decisions regarding the depth of the foundation trench for a building intended to rise in height.

The environmental conditions that could generate issues to the buildings were bypassed by the use of mudbrick, whose technical properties make it the ideal building material to withstand subsidence issues, which are common in areas prone to swelling soils. The building settled into position, but the multi-storeys implied considerable weight on the foundations. The mudbricks' reaction to stimuli such as stress, tensions, subsidence, and ground movement can take time and, in the archaeological record, can be observed in buildings exhibiting concave mudbrick courses. The concavity seems to portray the struggle of the building against subsidence rather than being a deliberate building technique; nonetheless, the ductility of the mudbricks ingeniously works toward the building resisting the stress.

Using stone or any other materials different from mudbrick for the foundations seems to have been dictated by the availability of the resource in the area[136] and the preference of the people who commissioned the construction since different combinations have been recorded throughout northern Egypt. The shift from mudbrick foundations to foundations that included a packing layer of fired brick did not have the purpose of withstanding humidity issues but of providing levelling and support. The inclusion of fired bricks seems to be linkable with the availability of material and the possibility of producing or acquiring it. This economic change could be a result of the settlement's possible development as regional capital during the Roman, Late Roman, and Early Islamic periods (Kenawi 2019a: xvii); however, this deduction is currently restricted

Concerning the understanding of the lifestyle of the house's inhabitants through the grasping of their everyday activities, it was initially recognised that the dearth of written evidence from the context of the case study house limits our understanding of particular details of the inhabitants, ranging from their identities to the social organisation of the house and household. The current inability to respond to these queries seems to further disengage the past inhabitants from the remains, as it is not possible to relate a depiction or a name to the people who had made the building their own irrespective of whether they owned or rented it. Nevertheless, one must work with what one has and make the (possible) most out of it. It was found that much evidence was in the outside areas associated with the house, which emphasises how equally pivotal it is to investigate the interior and exterior spaces of dwellings. The changes and remodelling of the architecture allow us to appreciate the vitality, resourcefulness, and agency of these unidentified individuals over the spaces where they carried out their daily lives.

The courtyard provided evidence for domestic and workshop activities, indicating that the house's inhabitants were involved in artisan activities; these activities could have been performed for personal needs, perhaps for the family and the neighbours, yet the conspicuous number of coin finds suggests that they could have also formed part of the inhabitants' sustenance. It cannot be said if this was the primary occupation or whether specific family members carried it out since multiple economic activities could be carried out contemporaneously by a single household (Rathbone 2002: 161). Nevertheless, it demonstrates the range of economic activities that could be carried out in Late Roman Kom al-Ahmer. This production of goods meant that consumers were requesting them. Furthermore, the fact that the household was engaged in these activities reveals that it could have been non-elite. The elite members in Egypt were majorly involved in the agricultural economy and held administrative positions, whereas a significant middle group —within a broad social tripartite division— would have been involved in production, distribution, and services. Even if they also partook in the agricultural business (Bagnall 1993: 225–26).

[136] For instance, Flinders Petrie reported that some of the Roman houses of Naukratis had been built using stones from the Great Temenos (Flinders Petrie 1886: 10).

The study conducted in this chapter underlined a fluid, or multi-purpose, use of space within and outside the case study house, a matter of necessity in small houses, where it would be impractical to assign a single definite purpose to any given space (Bard 2008: 174). This notion blends maybe too well with those instances in which the inferring of use is challenging due to the lack of material culture and/or architectural elements and may seem like the simple answer applicable to all cases. Nevertheless, it may very well have been the case for most contexts; the struggle to reach definite answers or to comply with the current expertise's 'expectations' (as in, the current knowledge) can pose a threat to the outcomes reached by an investigation, which may tend to force or apply an interpretation that may not necessarily fit.

It is relatively easier to identify a glass production activity that left behind remains of kiln installations than to recognise a worked bone object production that did not rely on installations, specific tools, or structures (Putzeys and Lavan 2007: 82). When these activities occurred in the same context, there incurs the risk that the evident remains of one may prevaricate over the subtler remains of the other, even though the activities shared the same space and may have been carried out by the same people —or members of a household— and occurred contemporaneously. One activity does not exclude the other, and the space in question included both while at the same time serving the purpose of accommodating housework such as food preparation. That being said, workshops associated with domestic contexts were no novelty and may have been common. Amarna presented evidence for small-scale workshops located in the residential Main City, some of which resided within private houses (Bard 2008: 179; Kemp 1989: 309). Ptolemaic artisan workshops were detected at Tell Atrib within the residential district; the workshops had dedicated to the production of vessels, terracottas, and lamps (Myśliwiec and Sztetyłło 2000: 30–31). Serenos, the owner and occupant of House B1 at Amheida — built in 340 CE and abandoned in 365 CE— seized the rooms of an adjacent building and created private workshops (Cribiore 2015: 149, 152). For Late Antiquity, Kom el-Dikka (Alexandria) provided a well-known example of this occurrence with its 6th century CE glass and bone workshops in the residential quarter (Rodziewicz 1984: 239–45); storerooms and workshops figured among the houses of Coptic town Djeme, and it was not uncommon for houses to function as venues to carry out business (Wilfong 2002: 11). Both glass and worked bone production could be carried out by a small group of workers (Bagnall 1993: 85; Sodini 1979: 92–94, 07, reference to P.Oxy 45.3265 and P.Genova I24(4c)), which meant that it could be performed in limited spaces amidst residential buildings.

The blending of the domestic sphere with the business one has been viewed as part of the change from the classical to the medieval city in the Eastern Mediterranean (Uytterhoeven 2007: 47). Nevertheless, it seemed to have been quite widespread even before, most likely as it would have been a necessity for the less wealthy. Shops were also a common feature of the Roman house, acting both as business places as well as dwellings (Ellis 2000: 78; Putzeys and Lavan 2007: 81–3). Within the case study house itself, it has been suggested that the room overlooking the street might have functioned as a commercial venue; the high number of coins retrieved from within and beyond the walls of the case

study house also attest to this combination. It is not clear what kind of goods could be sold, whether related to amphorae contents or to the workshop activities taking place in the courtyard; unfortunately, the evidence from the house's room does not point toward a direct answer.

The courtyard exhibited a trend of the house's inhabitants to tailor the area immediately outside their dwelling according to their needs (Huebner 2016: 169). The tentative reconstructions of the different phases of use of the house's courtyard are indicators that, throughout its longevity, there was a definite will to expand within the domestic context, a possible appropriation of the outside shared space, though limited to the area behind the house, opposite the street. This will was most probably fomented by need (Arnold 2003b: 39, 'Die anderen Flächen des Grundstücks – Nebenhöfe und Nebengebäude – sind in der Regel Produkt funktionaler Notwendgkeitne').[137] The street did not bear traces of small structures or activities; this can be inferred as a consideration of the street as a public venue pertaining to all that had to be left void to allow the flow of people, animals, goods, and transportation, or a hint that the space might have been too limited.[138] Nevertheless, the difference in area between the Southern and Eastern additions denotes a large availability of space of which advantage was taken. Similar cases of appropriation in defined residential spaces were noted at Elephantine (Arnold 2003b: 38). At Amheida Serenos, the owner of house B1, expanded his house by incorporating the adjacent building, which used to be a school, into his own (Cribiore 2015: 150). A 'progressive invasion of free space' has been observed as a characteristic of Byzantine Alexandria (Saliou 1994 p.34).

Modifying the house layout also implies incongruence between what the builders had constructed and what the users required or wanted to do with it. One thing is sure: they needed additional space and took advantage of what was available outside. The excavation of the Eastern Addition has revealed that the area had been empty before its construction, prompting the idea that it had previously been left as open space. The fact that it had been void of features does not imply that it was not used; various activities can take place leaving barely any trace, for instance, temporary markets, animal rearing, children being looked after, packing and unpacking of materials, lying out materials to dry, etc. Therefore, the construction of the Eastern Addition can either be viewed as an appropriation of the available communal space or an attempt to re-organise communal space.

The late Roman residential sector of Kom al-Ahmer is orthogonally organised, as seen from the aerial photographs. Nonetheless, the appropriation of communal spaces between the houses can reveal a change in how the settlement was being developed. Davoli (2019: 77–80) highlighted this about the townscape of Late Roman Amheida, which began to recall the conformation of a Medieval Islamic town more than that of a Roman settlement, with a compact, high-density presence of vernacular

[137] 'The other areas of the property —side courtyards and outbuildings— are usually the product of functional necessities' (my translation).
[138] Evidence from street R4 Kom al-Dikka shows that there was a trend of constructing shops encroaching on the street; however, the street was 9 m wide and the encroaching shops rendered it 6.5-6.7 m wide (McKenzie 2010: 24, 150).

architecture, narrow streets and alleys no longer following the orthogonal layout, and ‘a certain disposition to close spaces to avoid exposure to sun and winds.’ This consideration resonates with what seems to happen around the Late Roman house of Kom al-Ahmer, whose inhabitants’ local, small-scale changes may reflect a growing and different trend in using and tailoring space. It would fit with the aspect of transition as part of what was happening in Late Antiquity. This statement will require further exploration of the Late Roman sector to be able to affirm if it was a widespread trend.

Chapter 5 – An Egyptian house in a Mediterranean context

> *[…] the Mediterranean world was long divided into autonomous areas, only precariously linked. The entire globe is today far more united as between its constituent parts than the Mediterranean was in the age of Pericles. This is a truth one should never lose sight of even when contemplating the apparent tranquillity and unity of the Pax Romana. The plural always outweighs the singular. There are ten, twenty or a hundred Mediterraneans, each one sub-divided in turn.*
> Fernand Braudel (2001: 23), The Mediterranean in the Ancient World

The case study house has been archaeologically analysed (see Chapter 3 – The case study house), and it has been contextualised within its geographical and chronological backgrounds (see Chapter 4 – Beyond the excavation: analysing architecture and usage). It can now be established how it fits in the general picture of Late Antique domestic architecture by reviewing it against a sample of more or less contemporary houses beyond Egypt in order to establish if it had architectural/cultural ties with the immediate and further regions of the empire and see if there is evidence of Roman influence in the identity and design of the case study houses.

In summary, the case study house was a mudbrick building constructed in the late 4th century CE and abandoned around 450 CE. It formed part of a settlement built on high grounds in a wetland environment; the house formed part of a residential and commercial quarter on the western side of the modern extension of the settlement. It had a square plan of roughly 90m^2, subdivided into three rooms and a corner space for a staircase; the floors were of beaten earth, but the internal walls had been decorated with painted plaster. The house was inhabited by a household involved in artisanry production of glass and worked bone goods, carried out in the courtyard alongside domestic tasks. They were possibly using the room facing the street as a retail space. The form of the house changed throughout its existence, with mudbrick additions being added and abandoned —these additions correlated with the household's activities and eventual requirements for space. The household seems to have been non-elite due to its involvement in small-scale production and retail business. The fact that the case study house was located in a suburb close to the settlement's bathhouse is evocative of the workshops of the Late Roman residential quarter at Kom el-Dikka, emerging in proximity to public buildings like the bathhouse and the auditoria, which functioned as catalysts for services and goods due to the number of people that would have frequented those premises (Rodziewicz 1984: 331). The bathhouse at Tell Atrib yielded a high number of votive objects, most of which combined female figurines and baths, which led the researches to suppose that the baths establishment could have hosted events related to Dionysian fesitivties (Myśliwiec 1995: 127); the workshops identified in the nearby residential quarter may have

also supplied the figurines related to the activities carried out in the bathing venue (Myśliwiec and Sztetyłło 2000: 30–31). On the other hand, the elite in Egypt were majorly involved in the agricultural economy; they could be engaged in other business activities, but these usually concerned their estates (Tacoma 2006: 86–88). The case study house was embedded within the Late Roman residential sector of Kom al-Ahmer, and the surrounding space was either public (the street) or shared with the nearby neighbours.

5.1 – Introduction

This chapter will analyse the extent to which Egyptian and Roman influences can be detected in the architectural form of the case study house by observing if it is possible to assess any degree of acculturation due to the Delta's proximity to the Mediterranean. Despite the research efforts and the growing interest in Egyptian domestic archaeology, there might not be enough data to be able to assemble a comprehensive evolution of the Egyptian houses throughout time; this is due to the focus having so far been on specific periods (the New Kingdom, Persian, Ptolemaic, and Roman periods). This discrepancy has been influenced mainly by the methodology and objectives of the investigators, whether it be large-scale, papyri searching excavations of the 19th-20th century (Karanis and Soknopaiou Nesos; another example is Oxyrhynchus, but the excavations at that site yielded so many papyrological remains that the analysis of the archaeological data was overlooked) or the long-term excavations focussed on single settlements (Tell el-Dab'a, Tell el-Amarna, Deir el-Medina, Buto, Elephantine). In recent years, there has been a surge of interest in Hellenistic tower houses, which resulted in several publications of tower house excavations at various sites, mainly from the Fayum region (Tebtynis, Philadelphia) though not exclusively (Tuna el-Gebel, Elephantine). Another issue to consider is that many of the houses excavated belonged to members of the elite, who were not representative members of the overall population. Their dwellings tended to be tailored according to different parameters than those influencing the construction of more modest houses; 'they were completely different from those of the elite' (Grossmann 2007: 130).

One more issue to consider is the name used to refer to the case study house, the Late Roman house, and the connotations that this naming has or could have on the investigation. The name was given to provide a general context, distinguishing it from the other houses being excavated at Kom al-Ahmer and Kom Wasit. I considered using a more specific term (inspired by Herslund 2019b);[139] however, I decided that basing a name on material culture could potentially create a bias, particularly given the paucity of finds (except for the coins). Nevertheless, I now find that the chosen name to refer to it can also bear a bias of its own: though the intention was solely to refer to the historical period,

[139] Herslund termed a Late Dynastic, Early Ptolemaic tower house at Kom Wasit the 'House of the Horses' due to the finding of several fragments of terracotta horse figurines.

which is accepted in Egyptian archaeology and history as Egypt had been included within the Roman empire, the name seems to imply a sort of 'Roman-ness' to the house beyond the chronological association, like a more direct association to Roman customs that there might have essentially been.

Several of the publications consulted for this research are on Roman construction and building (Adam 2014; Ellis 2000; Gros 2006; Wallace-Hadrill 1988); these authors approach the topic of houses in Egypt or the Eastern Roman empire as a whole, nevertheless, the topic is assessed within the scope of Roman building. While this is not methodologically inappropriate, as it is applaudable that Egypt is included in the broader Mediterranean picture rather than a standalone case, this could result in a bias towards the Egyptian building practice. This potential bias has been bypassed in some cases with the adoption of terms such as Romano-Egyptian, especially in instances where the interpretation encompassed matters of acculturation (see Boozer 2015a, House B2 at Amheida is referred to as Romano-Egyptian). Additionally, it is thought-provoking to reflect on Braudel's view of the Pax Romana and the acknowledgement that, despite appearing tranquil and unified, it was a constellation of subdivided realities (Braudel, de Ayala and Braudel 2001: 23).

Wallace-Hadrill explored the question of 'what makes a Roman house a 'Roman house?' in a publication by the same name and conceded the complexity of defining an ideal house form in a geographically diverse, multicultural, and long-running reality such as that of the Roman empire (Wallace-Hadrill 2015: 177). The conclusions reached by Wallace-Hadrill are that the 'Roman-ness' of the Roman house pertains to its ability to function as a realm for private and public life (Wallace-Hadrill 2015: 184),[140] which does have to do with architectural form per se but also with luxury, or 'the capacity to receive visitors and impress' (Wallace-Hadrill 2015: 185), eliciting an exhibition of elite power. A similar trend was also noted in the 4th century BCE Greek world, with houses becoming a symbol of status and wealth, a form of private ostentation in contrast to the Classical *polis* values (Tang 2005: 167, 176). At the same time, Wallace-Hadrill (2015: 177, 181) stressed the flexibility of Roman identity in time and space and even described Roman culture as a magpie culture that took and borrowed things that it liked and remarked that what Vitruvius defined as the Roman house should not be taken as applicable to all as Vitruvius had recounted what he could experience during his time, not during the entire duration of the Roman empire (Wallace-Hadrill 2015: 184).

Overall, this reflection on the too hastily applied Roman-ness does not aim to deny nor neglect the evidence of Roman influence within vernacular buildings in Egypt, nor any other kind of influence; development of any type benefits from the exchange of ideas and influences not necessarily from within the same context but from outside. The intention is to point out that local customs can still be regarded as local despite taking in some foreign elements or influences as this can be part of their natural growth

[140] 'The better answer to my question is that what marks a Roman house as Roman is the perceived necessity of providing a suitable framework not only for private but also for public life, its willingness to embrace any model from the E Mediterranean that will enhance the sense of grandeur, and even […] and understanding that the rules of symmetry add greatly to the capacity of a house to make an impression on the visitor.'

and evolution, not to mention that they can be influenced by the local environmental conditions. This matter is particularly relevant when discussing post-Pharaonic Egypt, a reality regularly described as multi-cultural and multi-ethnic (Johnson 1992). Regarding cultural identity in the Roman empire, Laurence (1998: 8) wrote that 'there can be no single reading, only multiple readings and re-readings at a later date.'

In this instance, the focus will be on houses in Egypt in the Late Roman period, and the following will be considered: how Egyptian are they within the context of the Late Roman empire(s)? The question ties with the scope of this thesis about assessing the existence or absence of Roman influences on the design and identity of a 5th century CE non-elite house located in the northwestern Delta within the hinterland of Alexandria, the chief city of Egypt at the time, and whose settlement was well integrated within the Mediterranean trade network. The possibility of Roman influences is linked to the long-term affiliation to the Roman empire that 5th century Egypt had. The case of the Kom al-Ahmer house is then cross-compared with that of houses outside Egypt, within the reaches of the empire, to evaluate if similar dynamics were occurring.

5.2 – Overview of the development of house form in Egypt

To answer the question that ended the previous section, it is worth considering the Egyptian dwelling throughout its history to understand the form of the Kom al-Ahmer Late Roman house and its ties with Egyptian construction. This section will provide a brief overview of the evolution of domestic architecture in Egypt. The overview will focus mainly on the ground plan of the buildings due to the preservation of the houses' remains, which in most cases comprise the foundations and the ground floor solely, something that also applies to the Late Roman house of Kom al-Ahmer. Therefore, the most immediate way to compare it with previous and contemporary buildings is by observing the ground plan and the building materials. Understandably, the complexity of a dwelling cannot be summarised to its ground plan; however, the paucity of superstructure, accesses, and internal furnishings in the case study house puts limits on what can be inferred with hard evidence and what can be supposed. Therefore, it was decided to focus on the ground plan and the building materials as this data is the most commonly preserved.

The amount of existing data on excavated houses comes with its own biases from varying regional/geographical settings to socioeconomic factors, either of the individual inhabitants or the entire settlements, and eventual contrasts between state-funded dwellings and individual ones, to name a few. Therefore, the following summary is not meant to be a comprehensive review of Egyptian housing but rather a linear overview attainable with the available data.

The chronology used in this overview is from the Digital Egypt for Universities.[141] The New York Metropolitan Museum of Art's chronology was also consulted.[142]

The earliest evidence of domestic structures uncovered so far dates back to the **Neolithic** (6000-3300 BCE). The structures were built using mud, reeds, palm (used for its wood, fibre, branches, and leaves), timber —though limited— and possibly animal hides. The structures were characterised by circular, oval, or rectangular plans of one room that were occasionally partially sunk in the ground (Arnold 2003a: 110; Hayes 1990: 49; Köhler 2017: 338). The circular house type in Egypt developed from 6500 BCE and dated back at least to the 5th millennium BCE (Arnold 1989: 88, 90). Examples of these dwellings were recorded in northern Egypt, at sites in the Nile Delta: at Merimde Beni Salama, the Neolithic houses were dug into the ground, their plan was oval, and they were constructed in mud clod with a superstructure of reeds or wattle (Hayes 1990: 49–50); at el Omari, the structures had a circular plan, and evidence points to them having had a hearth at their centre (Hayes 1990: 50); at Maadi, houses with a rectangular plan were found along with the ones with circular or oval plans. They had been constructed with wattle and daub, and there is evidence that they had been supported by posts, though it seems that they were roofless; like the El Omari houses, they had hearths at the centre of the room. A particularity of the rectangular plan houses was that they bore remains of a sheltering wall in front of their entrances (Hayes 1990: 50). Circular plan houses were also registered in the Nile Valley: at Hemamiyeh (Middle Egypt), the structures were constituted by a low mud wall, a superstructure of bundles of reed, and a thatch roof that was upheld by poles; at Mahasneh (Upper Egypt), the houses were constructed with wooden posts, and the walls were constituted by intertwined twigs coated in mud plaster, but it was unclear whether these structures were roofed (Hayes 1990: 50). Evidence for pits or post-holes for early Neolithic houses was also encountered at Sais; the houses had possibly been constituted by wattle fences and mud (Wilson 2006: 93).

It was from the prehistoric huts that the Egyptian house (square or rectangular plan constituted by a main room accessible by one or more rooms or that gives access to rear rooms) originated (Arnold 2003a: 110); the rectangular house became the standard, and the prototype of the longhouse by 3000 BCE (Arnold 1989: 90). Nevertheless, it must be mentioned that the rectangular house co-existed with the circular or ovals ones as long ago as 6000 BCE (Arnold 2003a: 110; Hoffman 1982); as such, there does not seem to have been an evolution from circular to rectangular but rather a preference. Ricke (1932: 6–15) had proposed that the central hall, or the main room, had evolved from the one room of the huts and early dwellings, to which additional rooms were eventually added; however, Arnold (1989: 88) disagreed and instead suggested that the central court/hall developed from the open space enclosed by the group(s) of single-room structures. Among the abovementioned houses, Arnold (1989: 90) also

[141] It was developed by University College London (UCL) for the Petrie Museum of Egyptian Archaeology, created and maintained by Grajetzki, W., Quirke, S., and Petrie Museum of Egyptian Archaeology (2000; https://www.ucl.ac.uk/museumsstatic/digitalegypt/chronology/index.html).

[142] "Egypt, 8000–2000 B.C." In Heilbrunn Timeline of Art History. New York: The Metropolitan Museum of Art, 2000 – http://www.metmuseum.org/toah/ht/?period=02&region=afe (October 2000).

referred to the farmhouse, described as a number of longhouses placed within enclosed courtyards. Hoffman (1980) stated that farmhouses have been attested since 3650 BCE, the Naqada Ib-c period; it seems that they were widespread at least until the 13th dynasty (Arnold 1989: 90).

The introduction of sun-dried mudbrick occurred in the late **Predynastic** period (4000-3100 BCE). This building material became canon for Egyptian architecture and continued to be used throughout history to modern times (Lancaster and Ulrich 2013: 199). The earliest evidence for use in the Nile Delta is in semisubterranean houses dating back to the earlier part of the Buto-Maadi culture (around 3600 BCE) (Hayes 1990: 51; Moeller 2016: 62). Moeller suggested that the mudbrick technique was an import from the Levant. Evidence of buildings wholly made of mudbricks and rectangular plans have been recorded from the Naqada IIC/D1 period[143] (Moeller 2016: 64; Tristant 2004: 119). Evidence from the Delta becomes widespread from the end of the Naqada IID and the beginning of the Naqada IIIA periods (Moeller 2016: 64; von der Way 1997: 116–126).[144]

Arnold (1989: 90) reckoned that the Mediterranean court-centred house (with the central court having access to all parts of the house) was the inspiration for the 'most important Egyptian house type' since the **Old Kingdom** (2686-2181 BCE). Moeller argued that the typical Old Kingdom house had a 'core unit of several rooms' at the centre, frequently used for residential purposes, that was surrounded by other rooms and open spaces designated to be used for a range of activities (food production, storage, manufacture) (Moeller 2016: 211). An entryway often constituted the entrance into a vestibule followed by a corridor that led to the inner spaces of the house. The 'core unit of several rooms' would often have a rectangular room or hall, visibly larger than the others. Examples of securely dated Old Kingdom houses have been excavated at a variety of sites: Kom el-Hisn (Wenke et al. 1988), Bubastis (van Siclen III 1996), Giza —Heit el-Ghurab and Khentkawes— (Lehner et al. 2011; Lehner, Kamel and Tavares 2009a, 2009b), Elephantine (Ziermann 2002), the Dakhleh Oasis —Ayn Asil and Ain el-Gazareen— (Jeuthe 2012; Mills and Kaper 2003) (Figure 188). Moeller, whose book on ancient Egyptian urbanism between the Predynastic and the Middle Kingdom devoted much attention to the study of houses, did not pick up on specific or evident regional differences in Old Kingdom houses based on the number of excavated houses that could be compared. Still, there is a rightful nod to the possibility of not having enough data to note subtler differences (Moeller 2016: 194).

[143] The Digital Egypt for Universities chronology indicates that the Nadaqa II period lasted between ca. 3500-3200 BCE; according to the chronology of the Metropolitan Museum of Art, the Naqada IIC/DI period occurred between ca. 3450–3350 ("Egypt, 8000–2000 B.C." In *Heilbrunn Timeline of Art History*. New York: The Metropolitan Museum of Art, 2000–. http://www.metmuseum.org/toah/ht/?period=02&region=afe (October 2000)).

[144] The Naqada IID period is indicated as occurring between ca. 3350–3150 BCE (von Beckerath 1997: 183, 187); however, the absolute timeline proposed by Dee *et al.* (Dee et al. 2013) indicates that the Naqada IID/IIIA period lasted between 3352-3297 or 3377-3238 BCE (depending on the hpd range).

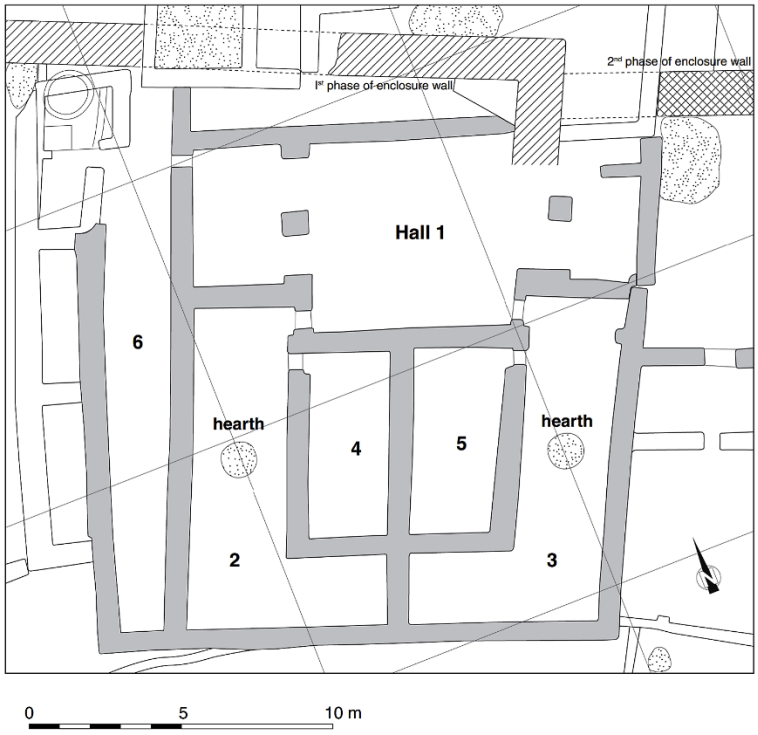


Figure 188 Ayn el-Gazzareen, plan of house Building C (6th Dynasty) (Mills and Kaper 2003: 124, figure 1; Moeller 2016: 211, figure 6.12).

Contrary to the Old Kingdom ones, Moeller denoted regional variations between **Middle Kingdom** (2025-1700 BCE) houses in Lower and Upper Egypt. These changes started to appear during the First Intermediate Period; while they shifted to a more standard form from the 12th dynasty onwards, there seemed to have been room for modifications in settlements that were not state-planned (Moeller 2016: 194, 344). Studies on Middle Kingdom houses have used data from the sites of Lahun, which provided several examples of urban houses of the 12th dynasty, Tell el-Dab'a, Elephantine, Wah-Sut (Abydos-South), and Tell el-Amarna (Moeller 2016: 343) (Arnold 1989; Bietak 1996b; Endruweit 1994; Ricke 1932; Tietze 1996; Wegner 2001). Despite being a New Kingdom city, the latter has been used for comparison due to the possibility of tracing the evolution of late Middle Kingdom houses onwards. In fact, Bietak's typology of Middle Kingdom houses is closely tied to that of New Kingdom houses; as such, it will be reviewed further down with the New Kingdom houses.

According to Arnold (1989: 77), a spacious court was the 'central element of Middle Kingdom domestic buildings' surrounded by the rest of the rooms and spaces. Arnold wrote that the main elements of this period's houses were the entrance chamber, household shrine, central court/hall, living room(s), bedroom(s), bathroom, and sitting room (though the latter was present only in the larger mansions) (Arnold 1989: 81–84). Instead, Hayes described two types of Middle Kingdom dwellings: the townhouse, compact and with possible multiple storeys, and the low countryside house, which included the enclosed courtyard (Hayes 1990: 255). The layouts of elite houses of Lahun are comparable

to the latter, though O'Connor emphasised that they were inhabited by urban rather than rural households (O'Connor 1997: 394).

Evidence from Elephantine revealed the existence of three-row houses, termed like this by Cornelius von Pilgrim, with a vestibule leading to the main room and two smaller rooms to the rear of the main one (von Pilgrim 1996a: 258–60, 1996b: 190–3). Von Pilgrim also noted the presence of courtyard houses too (von Pilgrim 1996b: 196–204), though there is contention on whether it might be appropriate to call them like that since some houses could have had a roofed hall rather than an open courtyard (von Pilgrim 1996b: 201–03). The central court or hall eventually became a vital element of the Elephantine houses from the Middle Kingdom to the Second Intermediate Period (Moeller 2016: 373). Divergence in house types was noted at Tell el-Dab'a: the Middle Room House (Mittelsaalhaus) and the Broad Room House (Breitraumhaus) seem to have resulted from Canaanite influence as they had elements that did not fit within Egyptian layout types, such as a walled open space surrounding the house (Bietak 1996a: 10). Until now, the studied Egyptian house remains suggested an indigenous development; in this instance, foreign influences are considered, and it may not be surprising that traces of these influences were detected at Tell el-Dab'a, whose first settlers are reckoned to have come from the Levant (Bietak 1996a: 10).

Bietak's typology of **Middle and New Kingdom** (2025-1700 and 1550-1069 BCE) houses is based on evidence from Tell el-Dab'a and Amarna (Figure 189); this typology was further expanded by Müller (Moeller 2016: 344). Bietak identified two types, A and B. Group A type I houses, based on Tell el-Dab'a houses, were constituted of two rooms, one larger than the other, with the primary access from the larger one and secondary access to the smaller one only through the larger room.[145] Group A type II houses, also based on Tell el-Dab'a data, included a third room used as a vestibule (Group A type II-a). There could be a fourth room to the rear (Group A type II-b). Group A type III is a tripartite layout, with the additional room adjacent to the larger room and opposite the smaller one; there were also elaborations of this layout, with more rooms. Other types included a vestibule at the front (type IV), a vestibule and additional rooms (type V), a vestibule, additional rooms, and a small square room leading into the vestibule (type VI) (Bietak 1996b; Müller 2012).

[145] Bader (2018: 132) observed that the bipartite Group A type I house had a long continuity of use, at Tell el-Dab'a, which progressed from the Middle Kingdom to the 18th Dynasty, including the Second Intermediate Period.

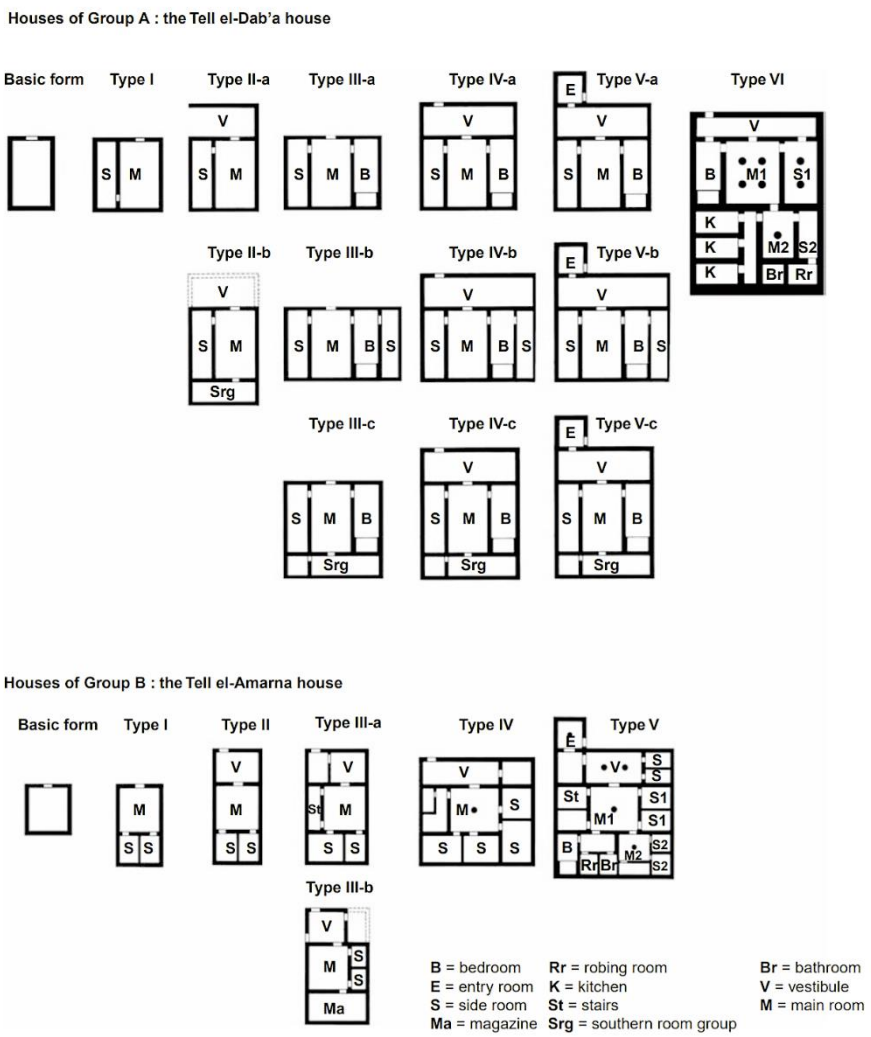


Figure 189 Bietak's typology, revised by Müller, of Middle Kingdom houses based on Tell el-Dab'a and Amarna (Bietak 1996b: 24, figure 2; Moeller 2016: 345, figure 9.1; Müller 2012: 42, figure 3).

The houses of Group B pertain to Amarna; the main difference from Group A was that the private rooms were located behind the larger/main room rather than by the sides (Moeller 2016: 345). Group B type II houses included a vestibule, whereas Group B type III houses had more rooms and architectural features on one side of the main room. Group B types IV and V houses are more complex versions of type III, with all four sides of the main room surrounded by rooms and architectural features (Figure 190). The shape of the houses became square (Moeller 2016: 345–47).

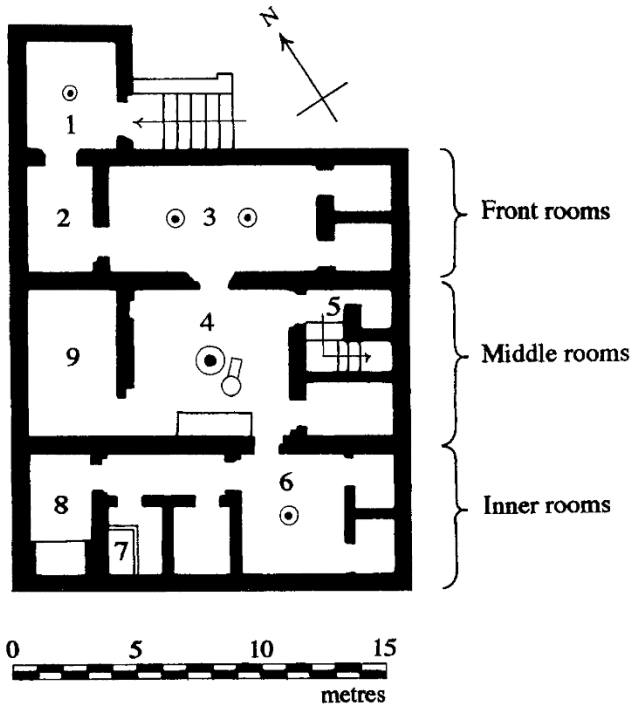


Figure 190 Amarna, plan of house M47.4 (Borchardt and Ricke 1980b, plate 17; Spence 2004: 126, figure 1).

If there were any shifts from Middle Kingdom houses to those of the **Second Intermediate Period** (1700-1550 BCE), what could be noticed was an additional complexity in terms of house form and larger dimensions (Moeller 2016: 344). On **New Kingdom** (1550-1069 BCE) houses, Arnold (1989: 78) referenced Ricke's study, who had identified three main divisions: a first sector used by the house's inhabitants when interacting with the public, a second sector for the house's inhabitants to use for their daily activities, and a third one dedicated to the private living quarters (Ricke 1932: 25–42). Arnold noted that this tripartite layout is evocative of one of the Middle Kingdom houses and also agreed that New Kingdom houses have a similar layout to those of the Middle Kingdom while noting that the courtyard houses seemed to become much less common in the New Kingdom (Arnold 1989: 78, 2003b: 178). The court in MK houses became the hall in NK houses, with the difference that the latter was roofed rather than open-air (Arnold 1989: 80). Arnold speculated on this change by supposing reasons related to climate change or population increase, which led to the necessity of roofing the hall to obtain a usable second floor.

Houses at Deir el-Medina also followed the tripartite division: they were of only one storey in height, but the roof was used for miscellaneous activities as it could be reached through a staircase located in the backcourt, which was open-air and employed as a kitchen. While the houses had been laid out with roughly the same plan, they seemed to have undergone modifications pending on the inhabitants' needs. As such, the size would vary depending on the cases (from 40 to 120 m^2, with an average of 70 m^2) (Bard 2008: 174; McDowell 2001: 11–12).

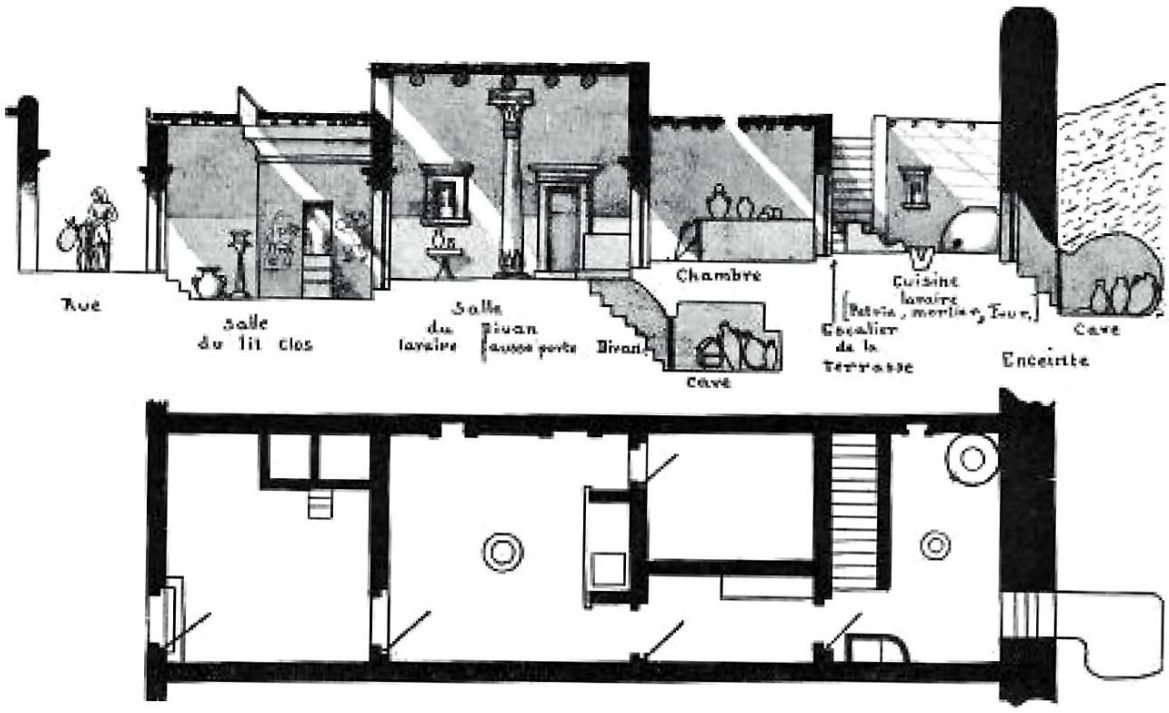


Figure 191 Standard house elevation and plan at Deir el-Medina (Bruyère 1939: 50, figure 15).

Arnold discussed the excavations at Tell el-Dab'a, those concerning the strata of the Second Intermediate Period and observed that the addition of roofing over the court/hall most likely occurred during the Second Intermediate Period. Arnold then referred to houses in Tell el-Dab'a, specifically to those in stratum c, of the late 13th dynasty (MB I1/a/B) (Winlock 1955 plate 56-57), which were mainly farmhouses with a similar form to the earlier house-type (court-centred). These were overlaid by houses of stratum (b/I), which date back to the period of the Hyksos (MB II/B i), and said houses had a plan with a central hall, characteristic of the New Kingdom (Bietak 1984); this change in houses of the 17th dynasty was also observed at Ballas (Lacovara 1981: 120–24). As such, Arnold added a cultural variable to the change in house plan, suggesting a possible foreign influence (Arnold 1989: 80–1).

Regarding eventual distinctions between non-elite and elite houses, Moeller (2016: 352) remarked that elite houses followed the typology but were much larger and more elaborate. De Garis Davies' (1929: 233) analysis of New Kingdom Tell el-Amarna townhouses based on pictorial evidence denoted that the houses of the less wealthy in the town centre and the workmen's village were smaller in size, more closely packed together, and with no courtyards when compared to houses of the elite and middle-class individuals.

The change to a roofed hall-centred plan prompted further alterations: smaller living quarters and smaller chambers due to the space occupied by the central hall and more bedrooms on the upper floor. In contrast to those of the Middle Kingdom, the houses of the New Kingdom were expanding in height rather than in area. The roofed central hall also meant that the open-air activities once carried out

inside the house were moved outside, thus affirming a change from farmhouse to the townhouse (Arnold 1989: 81).[146] It may be no coincidence that examples of two and three-storeyed houses are known from the New Kingdom; however, there are also examples from the Middle Kingdom (Lehmann 2021: 13): Spence indicated evidence of three-storey houses, both in representation (for instance, in the tomb of Djehutynefer, TT 104) (Spence 2004: 123–24, 140–46) and in excavation (House P47.24 at Amarna, possible three-storeyed house) (Spence 2004: 146–49). Excavation evidence has also been uncovered from other sites, such as Lisht (Arnold 1996) and Amara West (Spencer 2014a).

The first tower houses attested so far date back to the **Third Intermediate Period** (1069-664 BCE) (Lehmann 2021: 1) and may very well have resulted from the two and three-storeyed New Kingdom townhouses, thus shifting from a horizontal to a vertical focus (Arnold 2003b: 134). Some of the tower houses uncovered at el-Ashmunein are the earliest instances of tower houses that have been detected so far, and they date back to the end of the Third Intermediate Period (Spencer 1996: 216, 219). Aside from a multi-storey arrangement, the tower houses were characterised by thicker walls (Lehmann 2021: 2); their foundations also evolved from being subdivided into three rectangular partitions to multiple ones, thus achieving the casemate foundation (Figure 192) (Lehmann 2021: 8).



Figure 192 The evolution of the casemate foundation in Egypt (Lehmann 2021: 4).

Another change occurring during this period regards the central court/room: the investigations at el-Ashmunein and Elephantine seem to indicate that houses of the Late Third Intermediate and Late Period, respectively, were not equipped with central courts or central rooms, unlike houses of the earlier periods (Hope 2015: 225; Müller 2010: 431–35; Spencer 1996). This variation may denote a further change concerning the houses' layout, perhaps in association with its evolving architecture. The tower houses continued to be used in the **Late Period** (664-525 BCE) and beyond, as they became a standard house form of the Ptolemaic and Roman periods and kept being used in the Medieval period (Figure 193) (Arnold 2003b: 172; Lehmann 2021: 2). They had square, rectangular, or L-shaped layouts (Lehmann 2021: 7). It must be noted that they were not the only kind of house form: courtyard houses,

[146] Arnold commented that this change is depicted also in house models.

though more uncommon in this period, were also in use; some were located along the Mediterranean coast, most probably a result of the Hellenistic influence (e.g., the peristyle house) (Arnold 2003b: 178).

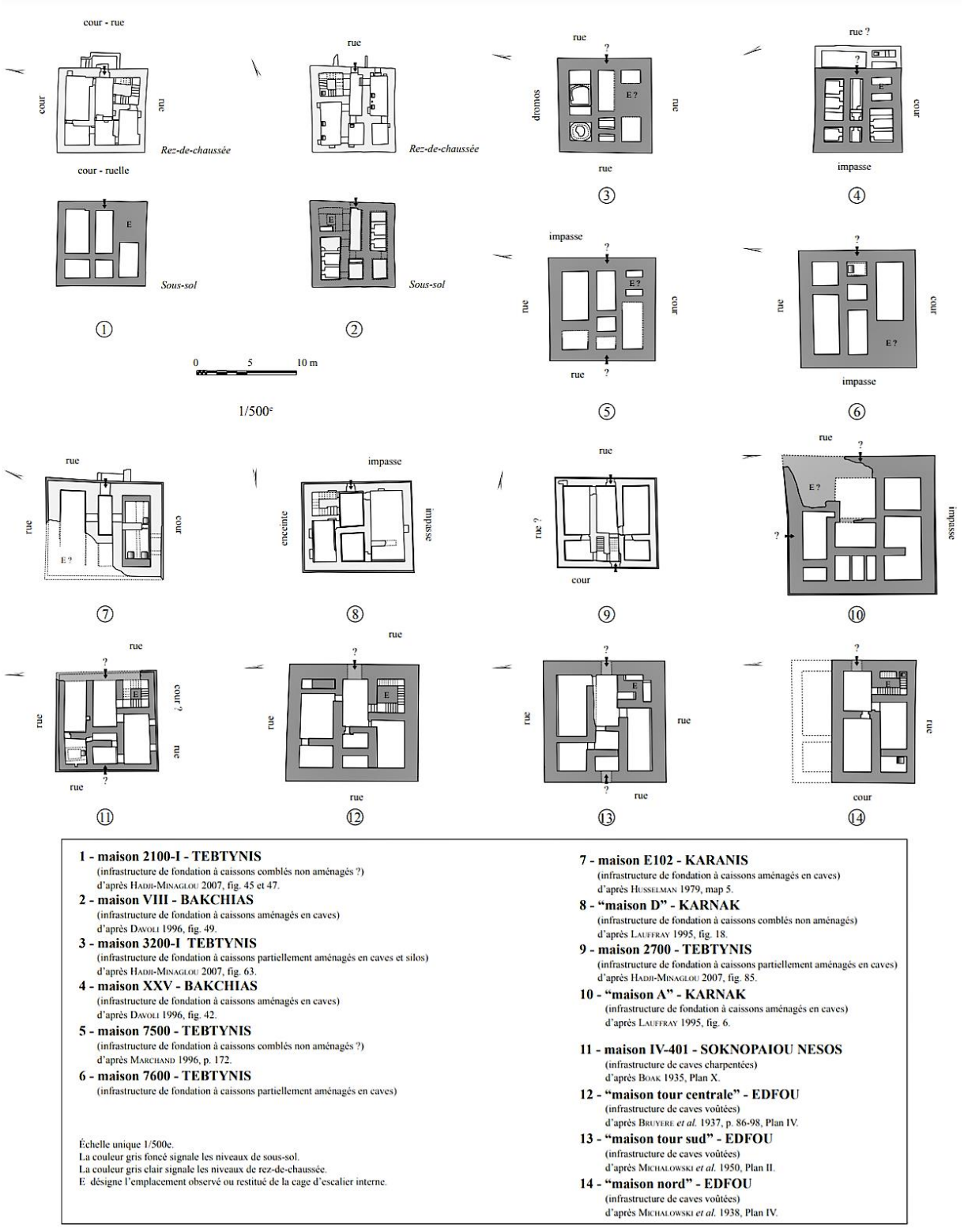


Figure 193 Plans of tower houses dating between the end of the 4th and the first half of the 3rd century BCE from the Fayum (Bakchias, Karanis, Soknopaiou Nesos, Tebtynis) and Upper Egypt (Edfu and Karnak) (Marouard 2012: 135, figure 1).

The development of tower houses does not seem to have had one specific trigger. On the contrary, Lehmann argued for a confluence of factors, namely an increase in population numbers, increased land cost, advances in architectural and engineering expertise, and the need for protection (Lehmann 2021: 13). Constructing upward allows to efficiently house more people within the same building or building block, and it is a solution that has been applied widely both in the past and currently (Yegül and Favro 2019: 263). Muhs (2015: 321–347) suggested that the increase of private property titles and transfers in the first millennium BCE is evidence of a change of perception regarding the house, in which more money started to be invested as the contracts would make for a more secure financial investment. In fact, the increase of the mudbrick wall's thickness, traceable to the end of the Third Intermediate Period, could be related to the construction of multiple storeys, which required sturdier walls and consequently a higher number of mudbricks, which also became larger possibly to conform to the increased dimensions of the walls (Lehmann 2021: 2). As such, it appears to have been an organic development of the Egyptian house rather than the adoption of a foreign building custom (Arnold 2003b: 176, 187; Lehmann 2021: 2), especially considering that the casemate foundation platform had been used in Egyptian architecture since the mid-2nd millennium BCE (Małecka-Drozd 2014: 69–70).

The tower houses became typical of the **Ptolemaic** period (332-30 BCE). They have been investigated at sites such as Bakchias (Davoli 1998), Buto (Marouard 2014), Elephantine (Layer 2) (Krekeler 1996), Karanis (Layer E) (Husselman and Peterson 1979), Karnak (Lauffray 1995), Soknopaiou Nesos (Layers II-IV) (Boak, Peterson and Haatveldt 1935), Tebtynis (Hadji-Minaglou 2014), Tell el-Dabʿa (Lehmann 2018), and Tuna el-Gebel (Flossmann-Schütze 2014). During the Ptolemaic period, the basement cells became vaulted, possibly due to their use as cellars (Lehmann, 2021, p. 8). Further enhancements were noted concerning the use of outside spaces immediately adjacent to the houses: ovens, silos, and stables began to be constructed and enclosed by annexes (Lehmann 2021: 9). Nonetheless, houses with a marked Greek influence were also in use, as testified by dwellings with *andron* (dining room), peristyle courtyard, mosaics and wall paintings (identified at sites in the Delta and the Fayum, such as Alexandria, Tebtynis, Thmuis, Canopus, etc) (Cole 2021: 3).

Concerning the **Roman** period (30 BCE-285 CE), the houses of the Fayum provide a rich study sample. In a comprehensive study of the urban archaeology of the Ptolemaic and Roman Fayum sites, Davoli (1998: 354) observed uniformity within urban houses: limited in footprint, multi-storey, with underground rooms, detached, surrounded by one or more external courtyards, at times enclosed and at times shared with other houses, provided with amenities for keeping animals, processing and cooking food. There were three types of layouts: rectangular (1), square or quasi-square (2), and with an irregular design (3). Davoli noted that the first two types were prevalent and usually with fewer decorative elements. In contrast, the latter type was frequently greater in size (in footprint and number of rooms) and included more decorative elements (columns, capitals, pilasters) of foreign style (Davoli 1998: 354). The typology of the common houses had barely been influenced by Greek and Roman domestic

architectural customs, except for decorative elements, though houses that followed Greek architectural customs continued to be constructed (Davoli 1998: 354–55).

The Fayum houses are not wholly representative of the domestic architectural situation during the Roman period. Evidence of Greek and Roman influences can be observed in the elaborate houses identified at Kom el-Dikka, Marea, and Marina el-Alamein, on the North Coast of Egypt (Depraetere 2005: 167; el-Fakhrani 1983: 175–186; Huebner 2016: 166; Pensabene and Gasparini 2019: 176, 184; Rodziewicz 1976: 179; Wiktor Andrzej 2019: 3–6), often equipped with central courts, portico wings like a peristyle house, and ornate mosaics (Bąkowska-Czerner and Czerner 2019; Czerner 2011; el-Fakhrani 1983; Kołątaj, Majcherek and Parandowska 2007; Wielgosz-Rondolino and Gwiazda 2015), showing similarities with imperial residences in North African and even the Western Roman provinces (Figure 194 and Figure 195) (Czerner 2011: 142–44). House H1 at Marea had been built with limestone blocks and remodelled several times. The construction and usage of the house spanned from the 6th to the 8th centuries CE. The house was abandoned by the 8th century CE when the whole settlement ceased to be inhabited (Wielgosz-Rondolino and Gwiazda 2015: 256–57). Marea was a port city that benefited from the proximity to Alexandria and Abou Mina, as it served as a trade centre for the agricultural produce directed to the city as well as for the pilgrim trade related to the shrine of St Menas (Alston 2001: 108). It may not be surprising to encounter large stone houses following Mediterranean architectural trends.

These different house forms denote the existence of both horizontal (houses at Kom el-Dikka and Marina el-Alamein) and vertical planning solutions (tower houses). Emery (2011: 6) described these houses as recalling the Middle Kingdom low houses with enclosed courtyards but with Mediterranean architectural influences.

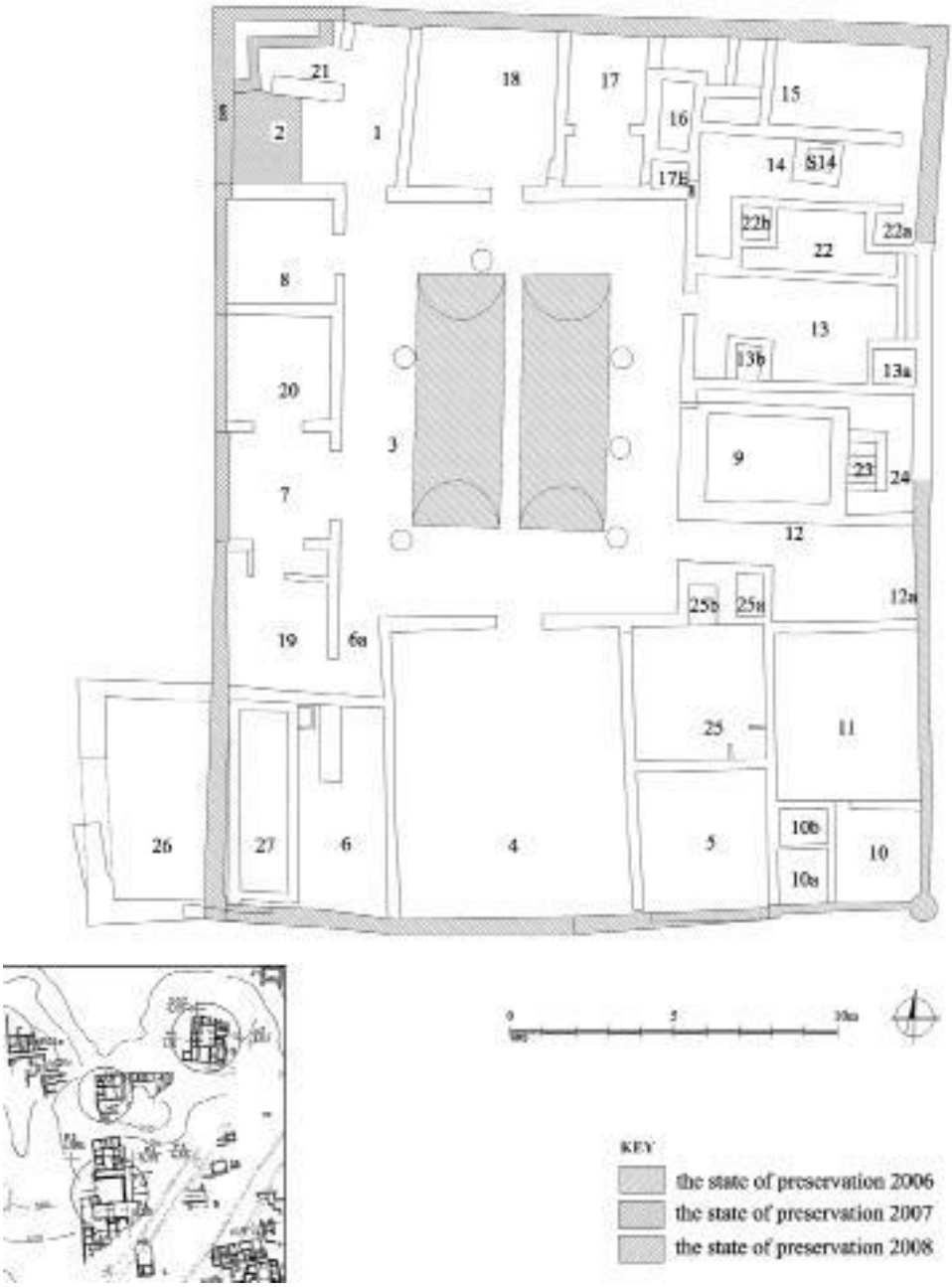


Figure 194 Marina el-Alamein, plan of peristyle House H1 (Medeksza et al. 2008: 106, figure 1).

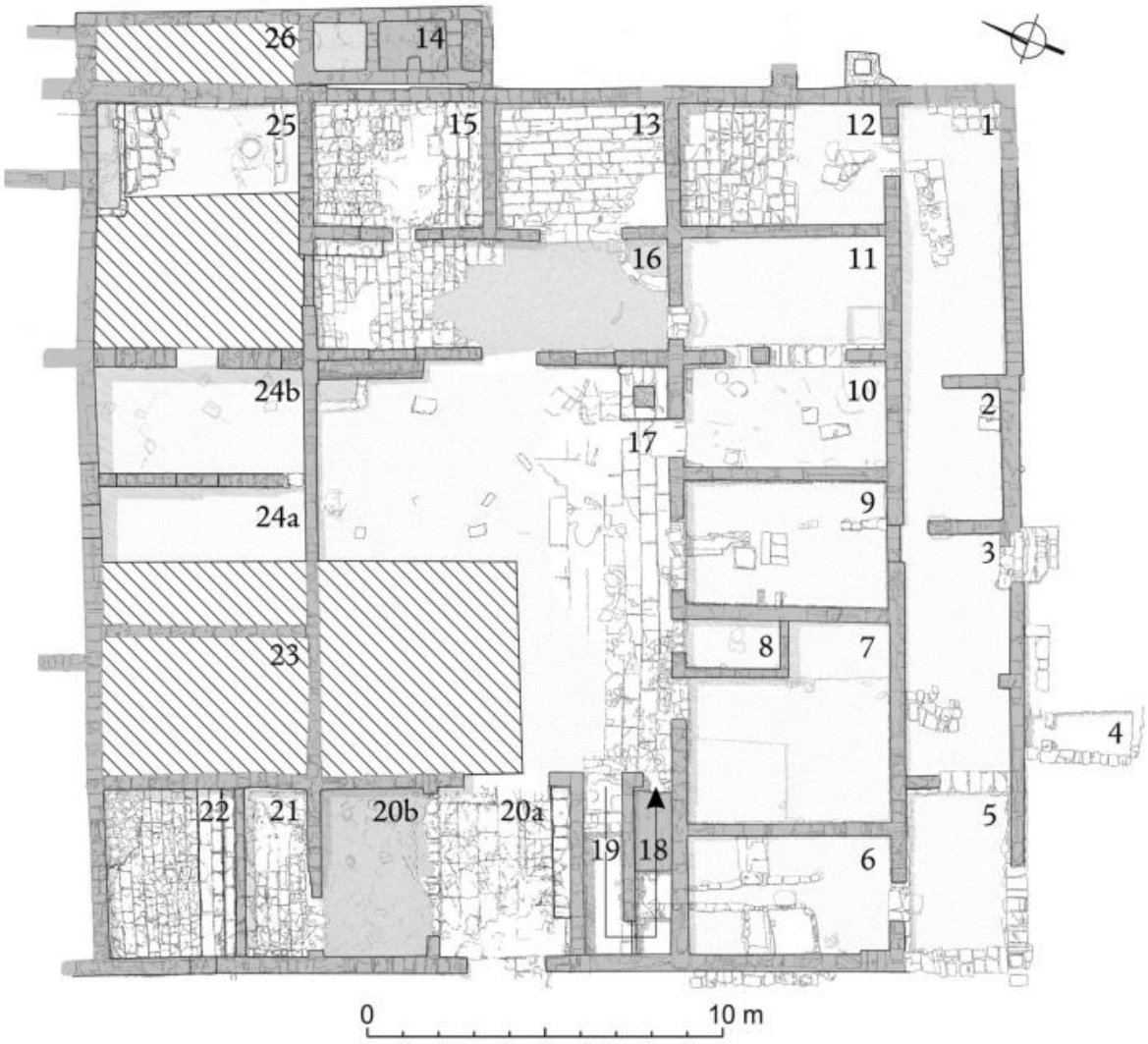


Figure 195 Overall plan of House H1 at Marea (Wielgosz-Rondolino and Gwiazda 2015: 258, figure 4).

At Tell Atrib (Athribis), the remains of a large residential building were unearthed in the 1980s (see Myśliwiec and Sztetyłło 2000). The building was referred to as a *villa* due to its conformation, which included domestic dependencies that ranged from kitchens, storerooms, cellars, and workshops for the possible production of wine or beer.[147] One of the central rooms of the building, accessible through a passage lined with two pillars, exhibited the remains of a fired brick rectangular basin at its centre. It was internally coated with plaster but sported some pots between the bricks on the four corners and in the middle of the four sidewalls, dated to the late Roman and Byzantine periods. The presence of the basin suggested that the room could have been used as an atrium (Myśliwiec 1995: 120). The building materials of the complex ranged from mud brick, fired brick, blocks of re-used limestone, of

[147] The Roman residential area exhibited the ruins of a canalisation in fired bricks and mortar. This canalisation ran southeast of the villa in proximity to one of its workshops, which the investigators believed to have been employed to produce wine or beer (Myśliwiec 1995: 120).

which some dated to the Ptolemaic period, and plaster wall coatings that depicted imitations of veined stones and representations of floral motifs. In some cases, it was possible to notice remodelling; for instance, the internal wall coating had been redone at least six times, both on the villa's complex and other structures, which advocates for an extended period of use. The villa was constructed in the 2nd century CE and used until the 4th or 5th century CE (Leclère 2008: 261; Myśliwiec 1995: 119–20).

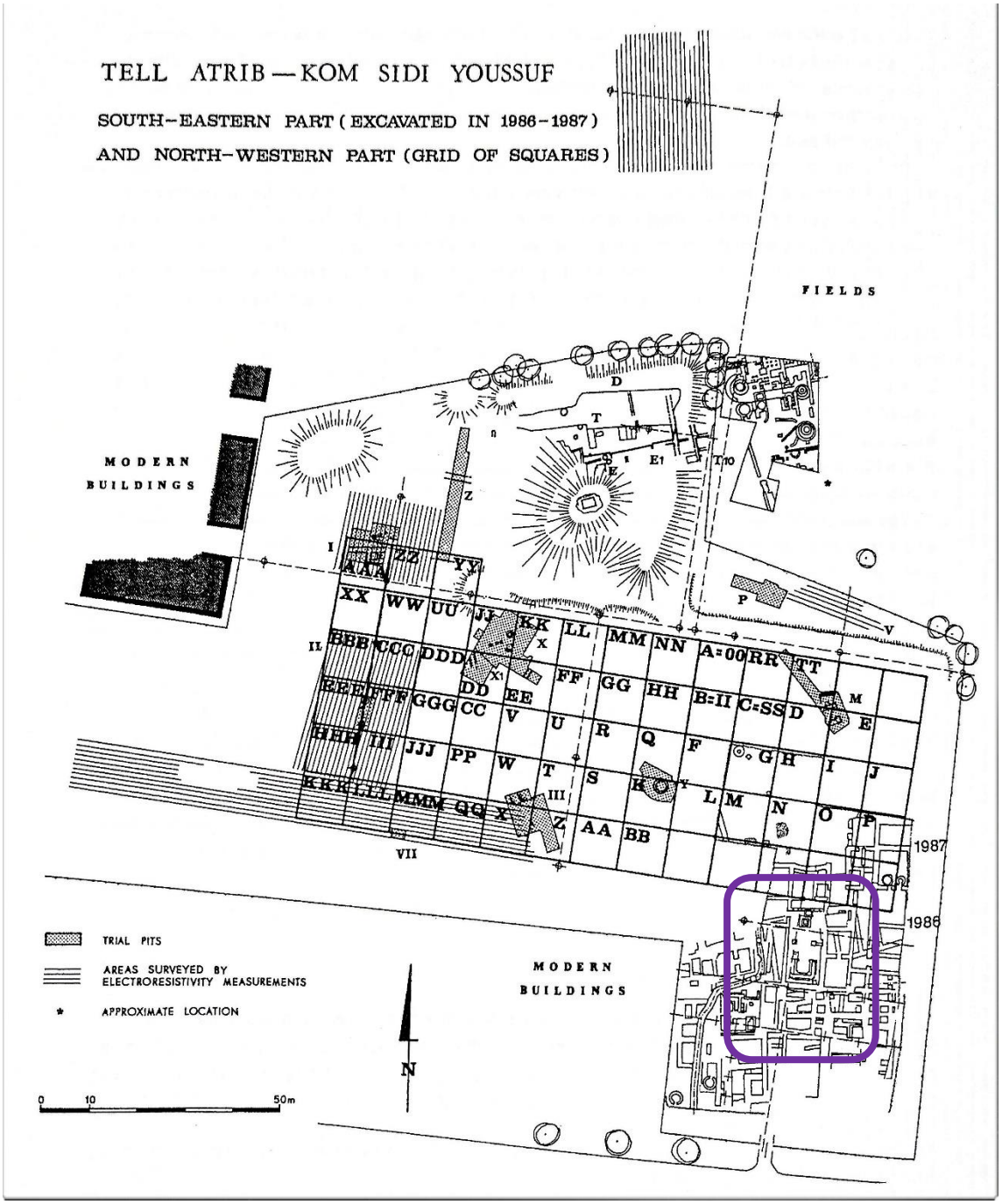


Figure 196 The excavation grid of the Polish rescue excavations at Tell Atrib; the remains of the Roman villa are indicated by the purple rectangle (Myśliwiec and Sztetyłło 2000: 14, figure 3).

Nevertheless, there was still variability: Hope's research at Kellis, Dakhleh Oasis, showed that ground floor layouts of houses of the 4th century CE bore elements that seem to still follow building conventions spanning back to the Pharaonic period (Hope 2015: 224–7); an example are the houses with open courts, of which there are some examples at Kellis, both in modest and wealthy houses (Figure 197 and Figure 198), which recall the architectural customs of the Middle Kingdom. Houses at Douch (ancient Kysis, Kharga Oasis) incorporated inner peristyles and interior courts, thus displaying Roman Mediterranean influences (Reddé et al. 2004: 25–74). Another example are houses whose layout revolved around one room that provided access to all the other rooms (Figure 199) (Hope 2003: 238). Hope (2015: 227) concluded by stating that 'it is unwise to view the architectural strands of Roman Egypt as separate and not interacting.' Houses at Amheida (ancient Trimithis) exhibit styles akin to the Mediterranean architectural models despite being somewhat distant not just from the Mediterranean but also from the Nile Vally (Ruffini 2018a: 6). Yet, it might not be surprising considering that the Oases were well-integrated into the Egyptian life, with the roads leading to them well-transited (Bagnall 1993: 146).

House B2 of Amheida (built between 250-275 and abandoned by the early 300 CE) was also interpreted by Boozer as having a central roof-less room (room 7) that provided access to all the other rooms on the ground floor (Figure 200 and Figure 201) (Boozer 2014: 102, 2015a). The interpretation of this particular house triggered a debate on the possibly roof-less room, with some arguing for a fully roofed Karanis-style interpretation against Boozer's analysis, highlighting a degree of regional diversity. Even recent ethnographic research denotes higher numbers of houses with unroofed houses in Upper Egypt and the Dakhleh Oasis than in Lower Egypt, possibly due to the former two regions being subjected to much less rain than the latter (Correas-Amador 2013: 112).

House B1 of Amheida (built between 330-340 and inhabited at least until 365 CE) (Davoli 2012: 277) has been called the house of Serenos, whose name appeared on many of the ostraca that were unearthed from the dwelling's rooms (Bagnall et al. 2015: 140; Cribiore 2015: 149). This house exhibited a similar architectural style to that of house B2, the same construction materials were used, and they also had similar plans (Figure 202). Whilst the construction techniques were the same, the houses were inhabited by families of different social statuses (Bagnall et al. 2015: 139–40).

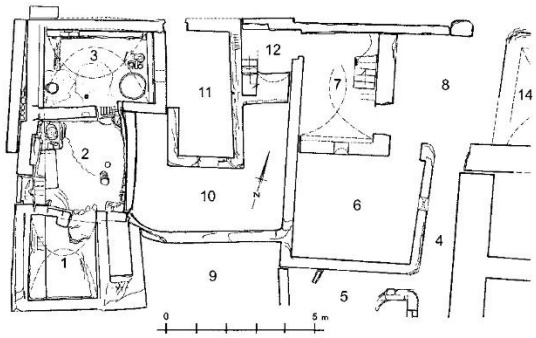


Figure 197 Plan of House D/8 at Kellis; rooms 9-11 seem to have formed part of an open-air court (Hope 2015: 223, figure 21).

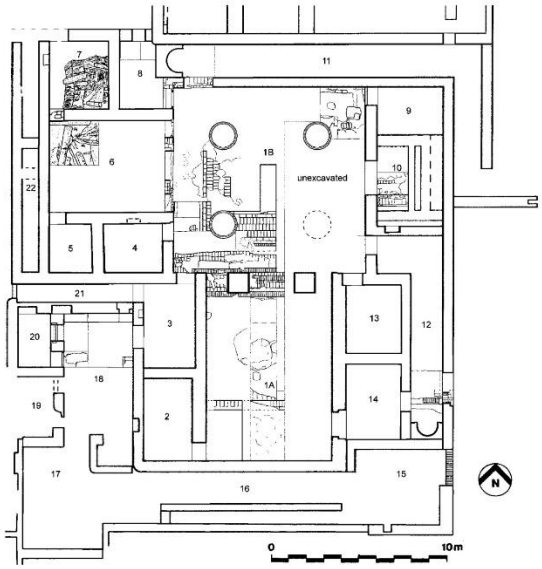


Figure 198 Plan of House B/3/1 at Kellis; the central part of room 1B seems to have been open (Hope 2015: 207, figure 6).

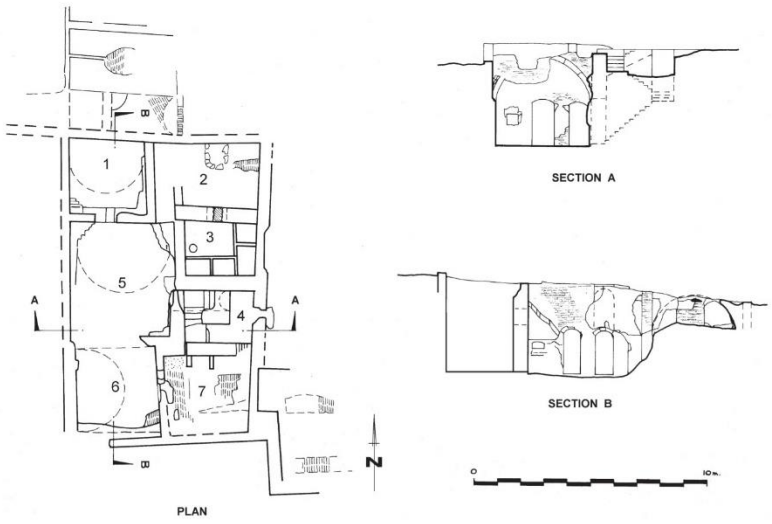


Figure 199 Plan and section of House 5, Area A/9, of Kellis (Hope 2003: 235, figure 8) Room 5 provided access to all the other rooms indicated on the plan.

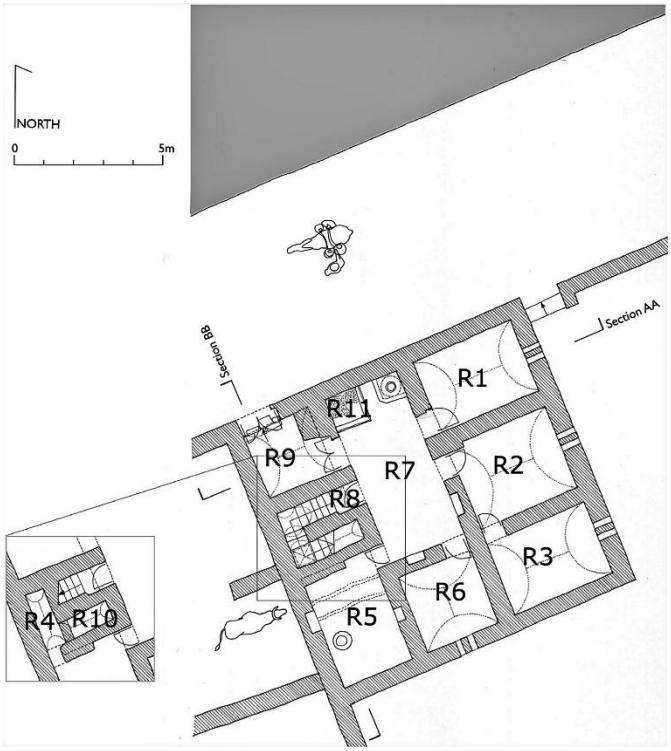


Figure 200 Plan of House B2 at Amheida (Boozer 2014: 103, figure 6.2).

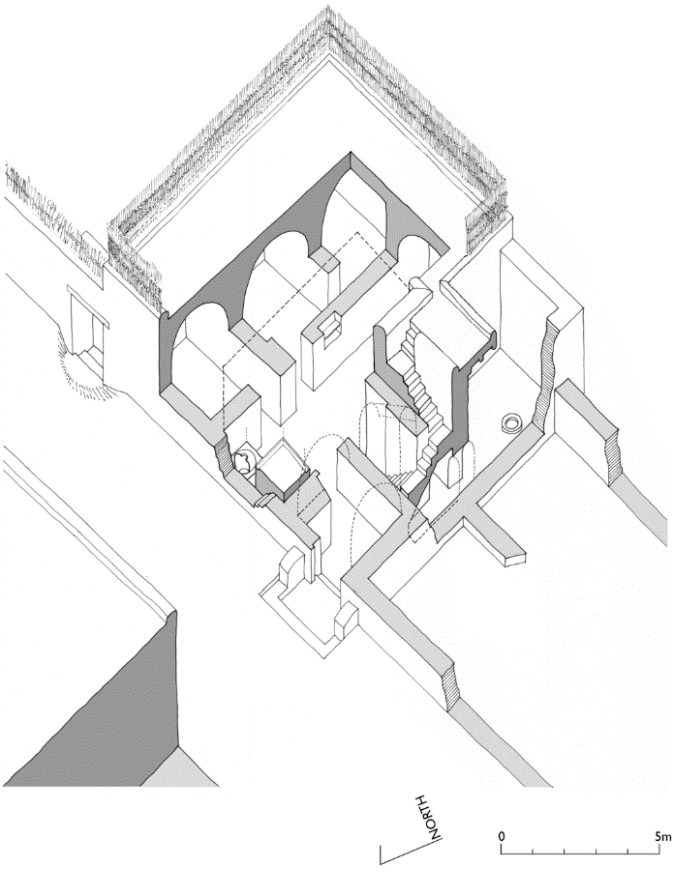


Figure 201 Reconstruction of Amheida House B2 (Boozer 2015a: 179, figure 6.4).

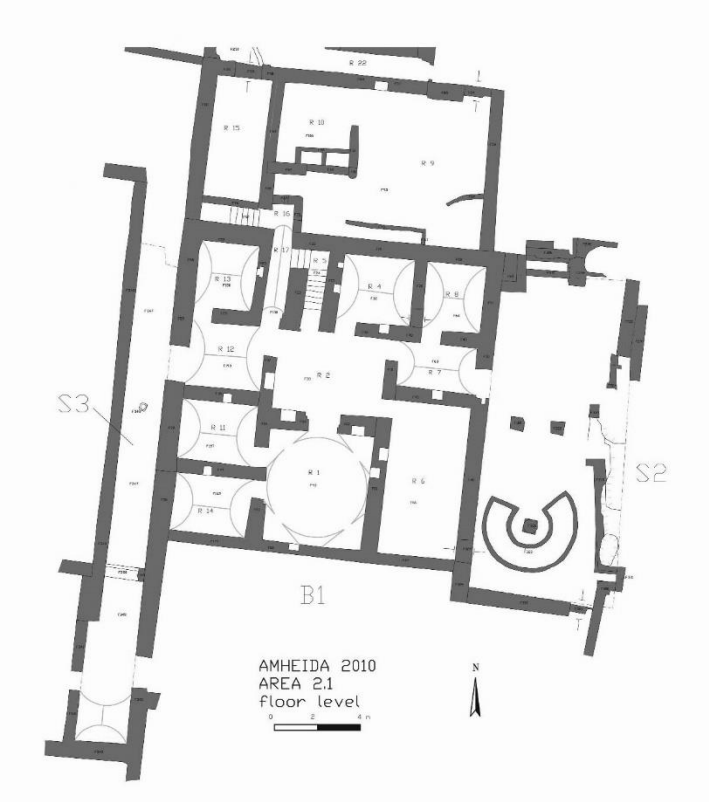


Figure 202 Plan of House B1 at Amheida (https://isaw.nyu.edu/research/amheida/maps-and-drawings).

The shift from Roman to **Late Roman** (285-640 CE)[148] characteristics is hard to trace, mainly because there are still few excavated Late Antique settlements in Egypt, which also makes it difficult to include it in broader interregional overviews (Brooks Hedstrom 2017: 186; Ellis 2007b: 7; Sodini 1997: 514–15). Nevertheless, it is possible to detect changes in housing design. Arnold (Arnold 2003b: 174–75) described the Late Antique house as more like a cube than a tower. Though the number of storeys and the height may have been reduced, structures still retained the characteristics of the tower house: upward orientation and vertical zoning, which was also observed in village housing (Figure 203) (Keenan 2007: 231). In terms of differences, Arnold noticed that the walls were no longer sloping but built straight, pan-bedding was no longer seen, and the underground rooms were also disused due to the ground floor levels attaining the same level as that of the street. Arnold noted that examples of these houses were excavated at Abu Mina (Grossmann et al. 1994), Edfu (Guéraud 1929), Elephantine (Arnold 2003b), Ma'abda (Kurth and Rössler-Köhler 1987), Medinet Habu (Hölscher 1954), and Philae (Grossmann 1980). In sites such as Djeme, whose occupations spanned up to the 8th-9th century CE, It can also be noticed that houses were no longer standalone but adjacent to each other, each still with its

[148] The Digital Egypt for Universities chronology includes the Roman and Byzantine periods together. I applied the division between Roman and Late Roman based on the considerations made in *Section 2.3* – .

walls (Hölscher 1934, plate 32; Keenan 2007: 231). It is not addressed whether these developments were coming from outside; instead, they seem to form part of the organic development.

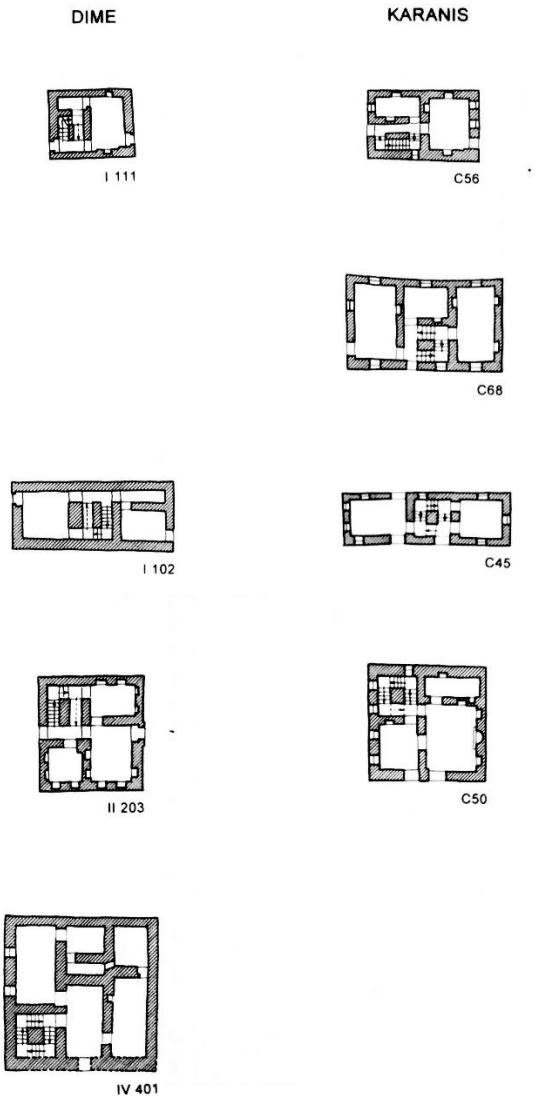


Figure 203 Plans of Late Antique dwellings at Karanis and Soknopaiou Nesos (Arnold 2003b: 184, figure 116; Boak, Peterson and Haatveldt 1935, plans I-VIII; Husselman and Peterson 1979, maps 11-14).

At Elephantine, Grossmann investigated the residential quarter in the forecourt of the Khnum temple. The houses were built between 425-450 CE, and, in this instance, they had been planned and executed following a uniform layout and style (almost identical floor plans); the irregularities —or personal touches?— were interpreted as post-constructional (Grossmann 1980: 9, 17, 20). It had been proposed that the houses may have formed part of a monastic settlement given the regularity of design; however, Grossmann rejected this possibility due to the absence of a church[149] and prayer niches in the

[149] The church in the northern pronaos dates back to the second half of the 6th century CE (Grossmann 1980: 22).

houses (Grossmann 1980: 21). The residential quarter seems more likely to be associated with a military camp or accommodations for workers employed at a major building project. The houses shared common partition walls, which is unusual in Late Antique housing as houses were usually free-standing (Grossmann 1980: 20). The walls were relatively thin —roughly 45 cm, a brick and a half wide— and were constructed over a 40 cm high base strip constituted by 'pharaonic blocks broken into small cubic chunks;' these strips were placed over the forecourt pavement (Grossmann 1980: 71–2). In some instances, the corners had stone implementations, possibly reinforcing them.

Peristyle houses were still constructed in this period too. Examples from Abou Mena testify to their long-term use: for instance, the Ostraka house, which also bore traces of modifications and partitions in its later stages of use, which potentially testify to its use by multiple units (Figure 204) (Alston 2007: 373, 377–78; Grossmann et al. 1995: 406–07). Excavation at Ehnasya uncovered the remains of House L, which was described as a large mansion containing stone capitals and pilasters, and house E (Figure 205), described as a fine mansion with a large atrium surrounded by stone columns. A piece of glass mosaic pavement constituted by irregular pieces of sheet glass and a large, red, coarse bead was also mentioned in association with the house (Flinders Petrie 1905: 28).

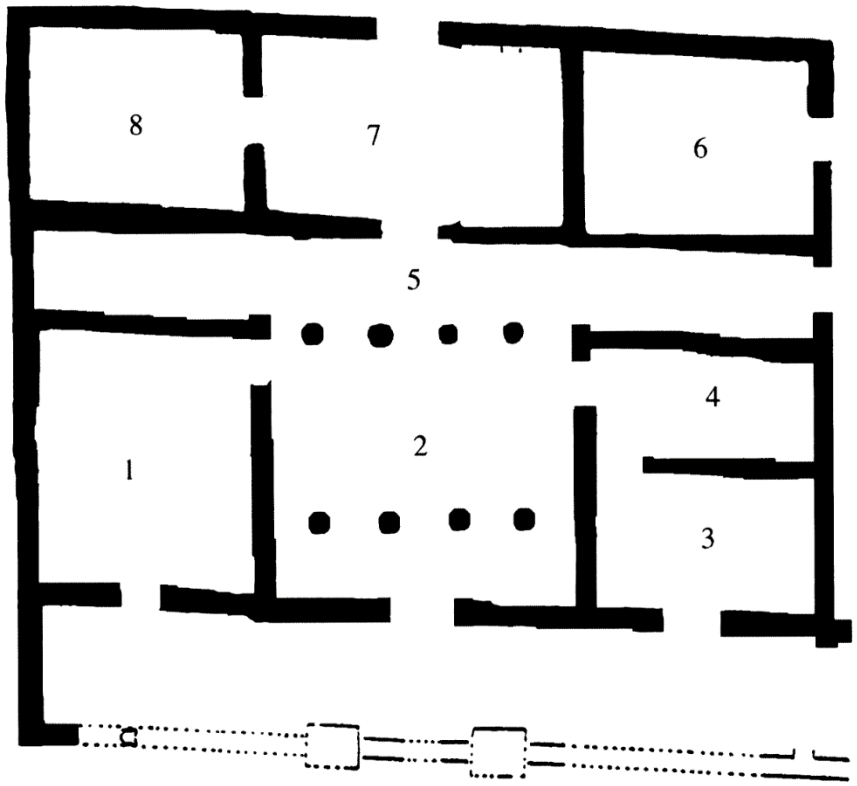


Figure 204 Plan of the Ostraka House (stage I) at Abu Mina (Alston 2007: 377, figure 40.1).

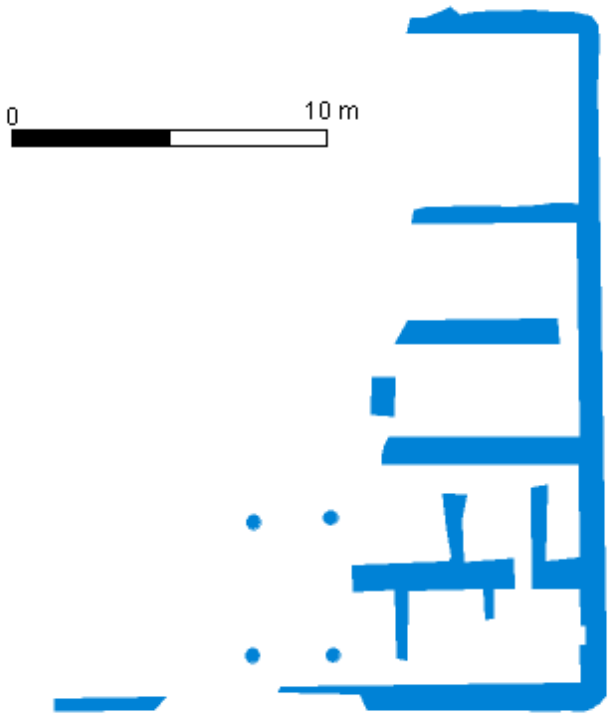


Figure 205 Ehnasya house E, dated to the 7th century CE (Flinders Petrie 1905, plate XXXV).

Alexandria also offered evidence for Late Roman housing: several houses built in limestone blocks, either built against each other or separated by the street network, the site of Kom el-Dikka. These houses belonged to artisans and had been constructed over the remains of earlier villas (Rodziewicz 1984: 128–45). Houses ranged from single to multi-storeyed, and the plans were irregular: some revolved around a central, corridor-like courtyard and were reminiscent of multi-storey tenements in Rome (house D); others displayed the remains of a peristyle court with pool, evocative of an earlier style (house E) (McKenzie 2010: 218). The detected houses ranged in dating between the 4th and 7th centuries CE.

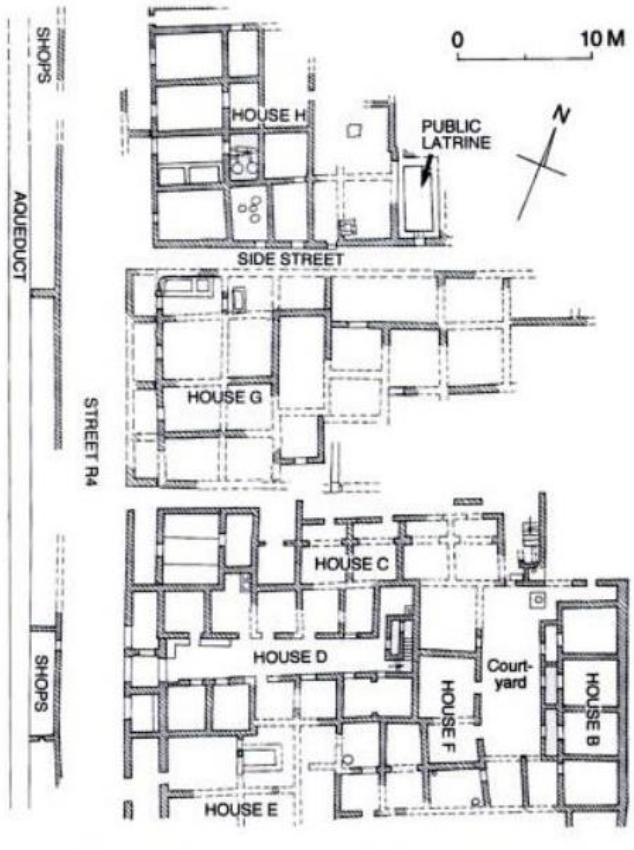


Figure 206 Plan of the Late Roman residential sector at Kom el-Dikka (McKenzie 2010: 216, figure 372).

Several dozen Coptic houses, dated to the 7th and 8th centuries CE, were investigated at Djeme (Medinet Habu) (Hölscher 1954; Hölscher and Nelson 1931). The excavators identified at least two layers among the remains, dating to the Late Roman and Coptic periods. The houses were built of mudbrick, but fired bricks and stone were also employed for specific fixtures; sometimes, pottery pipes were noted, possibly in relation to ventilation and waste disposal (Wilfong 2002: 11). The buildings comprised multiple storeys: a cellar, a first, and a second-floor (Figure 207). Traces of a third floor were detected in some instances. Most storeys had barrel-vaulted rooms accessible through barrel-vaulted staircases. Many houses were connected to rear courts shared with other structures. The first floors had tiny slits for the entrance of air and light, whereas the second floors had windows, albeit small. Aside from plans and elevations, there were no references to specific houses. The residential district was also briefly described as being composed of houses and narrow streets with many dead-ends (Hölscher and Nelson 1931: 51, 53).

Entryways all led into a living room, which had several niches, particularly one for water jugs. Most rooms had vaulted ceilings (Hölscher 1954: 46–7). The excavators did not understand whether the houses within the temple enclosure had belonged to civilians or officials, as the sebakh removal had damaged the Late Roman and Coptic houses. Nonetheless, specific information could be discerned for most houses; for instance, it was possible to note that some houses had been inhabited by more than

one family, each occupying a different storey of the building, as attested by the existence of different entrances for each level. This arrangement implied the absence of a stairway between the floors of the same building (Hölscher 1954: 47–9).

A series of houses exposed at Aphrodito (Kom Ishqaw) were roughly dated to 600 CE, and the description provided by Quibell highlighted their similarity to the Djeme houses: rectangular rooms, second storeys reachable through a square winding staircase, and barrel-vaulted ceilings. Wood and stone were used for roofing, the edges of staircase steps, and door thresholds (Quibell 1902: 87).

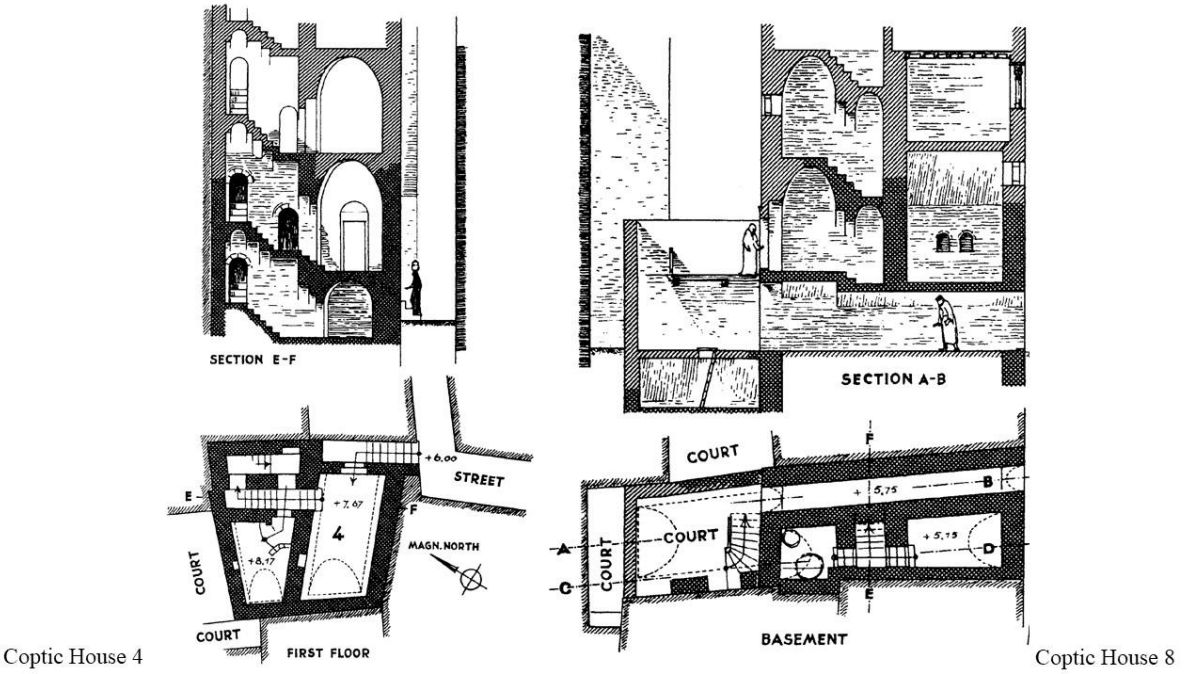


Figure 207 Plans and elevations of Coptic house 4 (to the left) and Coptic house 8 (to the right) at Djeme (after Hölscher 1954, plate 41).

This overview allows us to broadly trace the evolution of Egyptian housing until the period of the case study house. Although the focus was kept entirely on the form of the house (mostly foundations) and details regarding the socioeconomic status of the housings were not taken into consideration, it can be seen that, overall, there was a strong local influence on vernacular architecture, whose indigenous character was maintained and developed.[150] It is also equally interesting to note the instances in which foreign influences marked the development of house form: from the Canaanite inputs in Middle Room House (Mittelsaalhaus) and the Broad Room House (Breitraumhaus) at Tell el-Dab'a to the variation of housing types noticeable during the Ptolemaic and Roman periods, allegedly times in which movements of people in and out of the country were more evident in the archaeological record. Another detail to add is that the application of imported influences could vary in measure (from the

[150] Perrot (1881) provided possibly one of the first overviews on ancient Egyptian houses; the analysis made associations between the similarities shared by the older and the more recent houses (Perrot 1881: 625).

complete architectural form to the adoption of small decorative elements). Overall, elite members displayed an open approach towards foreign influences, as testified by the remains of their houses, though it may have not always been the case. On the other hand, native housing customs were widespread and detectable throughout the country, denoting that Egyptian housing architecture was becoming more varied but at the same time maintained strong ties with the indigenous customs and continued developing organically.

The Late Roman house of Kom al-Ahmer conforms to the characteristics described for Roman and Late Roman housing in Egypt in materials, plan, decoration, and layout. Its plan and appearance are congruent with those of other houses from those periods. Parallels include house 5 at Syene (Jaritz and Rodziewicz, 1994, p. 118), which was dated between the mid-1st century CE to the first half of the second century CE based on parallels with the Karanis houses (Husselman and Peterson 1979: 9; Jaritz and Rodziewicz 1994: 121); house C 51 at Karanis was dated to the 2nd-3rd centuries CE (Boak and Peterson 1931: 57; Husselman and Peterson 1979: 69–70), house II 203 in Soknopaiou Nesos, dated approximately between the 1st and 3rd centuries CE (Boak, Peterson and Haatveldt 1935: 7–8, plans III-V), houses 59 and 117 at Medinet Habu (Hölscher and Nelson 1931: 50–1). These examples have plans consisting of three rooms and one of the house's corners reserved for the staircase, which falls in the Ib square type in Depraetere's classification of C-Level houses at Karanis (Depraetere 2005: 59–61). The building material is mudbrick. Other materials, such as stone and wood, could be used in specific instances (foundations, corners), though none was identified at the case study house. In addition, there are also other slight discrepancies from the description of Late Antique houses provided by Arnold, such as the concave loadbearing walls (discussed in *Section 4.2.3.3 – Concave courses*) and the remains of possible underground rooms. Rather than distinctive traits, they can be considered part of the organic development of house form, which did not occur contemporaneously everywhere, and houses would not have had to be identical. The dating assigned to each of the abovementioned examples denotes that this design also had considerable longevity.

The research for this thesis initially compelled me to instinctively try to fit the case study house within a given category; that of *domus* was suggested, given the chronological period to which it pertains. Nevertheless, it could soon be realised that one might incur bias when assigning names for the sake of organisation. Egypt was incorporated into the Roman empire, but this does not imply conformity, particularly when the study objects are different in appearance from each other. Furthermore, even the understanding of *domus* is problematic: a *domus* was an elite residence in Rome, and a single-family usually occupied it; yet a *domus* in Pompeii and Herculaneum was not necessarily an elite dwelling and could be shared by a number of families (Wallace-Hadrill 2015: 185). The label of *domus* is flexible and unpredictable even within the cultural and geographical contexts that generated it, and this makes it all the more debatable to apply it nonchalantly to houses later in date and geographically distant.

Alston (1997: 39) remarked that there was no chronological or geographical conformity concerning domestic space in Roman Egypt due to the complexity and plurality of Romano-Egyptian society.[151] While I agree with the main idea of the statement, I also would like to argue that the chronological and geographical unconformities also result from the available archaeological data, which severely restricts our point of view. Hence, most archaeologists mention the need for further excavations: the available data is not enough to give us a clear enough picture. It is worth referring to Boozer's article 'The tyranny of typologies: evidential reasoning in Romano-Egyptian domestic archaeology', which explains that the use and heavy reliance on 'ill-conceived and empirically inadequate typologies can undermine future work' (2014: 104). The argument in the article is made about the use of Karanis house typologies as definite guides, given that Karanis is a site where many Roman houses have been excavated and documented with drawings and plans. This wealth of data has led scholars to consider the Karanis houses as quintessential examples of the Egyptian house during the Roman period. The data from Karanis has also been considered in the research for this thesis, but, as Boozer (2014: 105) pointed out, it cannot be the only site of reference as it negates the purpose of current and future archaeological research (2014: 104). Moreover, this section has demonstrated that there was an assortment of house forms in use during the Roman and Late Roman periods (as discussed in the previous paragraphs); the different forms responded to stimuli such as socioeconomic factors, material availability, regional location, environmental requirements, ethnicity, settlement type and space accessibility. Karanis is one example, and it is an exception too because the vast majority of settlements have not undergone similar extensive (in area and depth) and long-term excavations.

There arises the question of whether a house built within the Roman empire should be referred to as *domus* or not, particularly in a place like Egypt where Latin was not even in widespread use, and even if it should be considered a Roman house only based on location. Following Wallace-Hadrill's reasoning, the case study house, or what could be grasped from its remains, does not exude Roman-ness. The possibility that the walls of the ground floor rooms would have been adorned with painted plaster, though a definite difference from the un-plastered interiors of Ptolemaic tower houses, may not be enough to allow us to consider matters of status and luxury, particularly when looking at the rest of the material culture, which does not indicate high socioeconomic means. Some interior plaster decoration was also carried out in Pharaonic times (Fulcher 2018; Kemp and Stevens 2010; Lee and Quirke 2000: 118), but this may have been the case for elite houses. The use of painted plaster as house decoration could tie to a trend or fashion of the Roman period[152] that had become more easily accessible or a decoration style within the economic means of the house's inhabitants. Davoli (2015a: 182)

[151] 'Instead of finding a unitary vision of domestic space which would characterise Roman Egypt or even the Romano-Egyptian city, the realities of a complex, multi-cultural society suggest that there were several overlapping and competing views of domestic space. The Egyptian house is an area in which the competing ideologies of Roman Egypt were expressed' (Alston 1997: 39).

[152] Rathbone (2007: 714) wrote that the better houses of the Roman period included stone architectural elements and painted wall plaster decorations depicting naturalistic, mythological scenes.

commented that painted plaster is attested in domestic contexts at most sites of the Roman period in the Fayum. Still, Wallace-Hadrill, as well as Ellis (2000: 97), would consider the case study house as Roman by virtue of being located in a country that had long since been incorporated into the Roman empire; the Roman cultural identity thus becomes flexible and mixed by clinging onto the evidence of thousands of typologically varied investigated houses of the Roman period.

For the abovementioned reasons, it is pivotal to review the Late Roman (and Roman) period housing examples from Egypt and other Mediterranean regions to determine how the local architectural practice compares to that of territories with a similar climate that also underwent direct Roman influence.

5.3 – How Egyptian? How Roman?

In the previous section, I have presented some parallels for the form of the Late Roman house, which indicate that the form was not uncommon and that it responded to the local building practices of the period. The case study house conformed with several characteristics of the common Egyptian house of the Roman period: mudbrick architecture, square tower house building, multi-storey, underground basement rooms, and access to an open-air courtyard surrounded by other houses. The tower houses' internal multi-storey configuration incorporated vertical zoning that ideally ranged from 'public' (below) to 'private' (above) (Arnold 2003b: 176, 2015: 8; Grossmann 2007: 131). In other chapters, there has been a constant reference to other house remains in Egypt dating to the Roman and Late Roman periods to compare and contrast them with the remains of the case study house. In this section, a sample of non-elite house examples from a similar time and other regions of the Mediterranean will be reviewed.

The focus area has been limited to the regions on the southern and eastern coasts of the Mediterranean Sea, and the decision was influenced by the geographical proximity suggestive of more comparable climatic and environmental conditions.[153] The choice of sites presented in this section essentially depended on data availability. Often, the focus of excavation has been on elite houses; the reasons are manifold and frequently depend on research objectives and degree of conservation. Comprehensive publications on houses have been, therefore, biased towards elite dwellings (for instance, see Baldini Lippolis 2001 whose analysis of a Late Antique domus was overall based on elite houses; Bowes 2010 also looked exclusively at elite houses; also Bullo and Ghedini 2003 predominantly used data from elite houses; Rekowska 2020 inquired on the degree of Romanity of Eastern Mediterranean houses but focussed on elite residences; see Thébert 1987 for elite domestic architecture in Roman Africa).[154] What is meant by elite housing? Bowes (2010: 18) used the term broadly,

[153] 'Everything is related to everything else, but near things are. more related than distant things' (Tobler 1970: 236).
[154] For instance, only Alexandria and Marea are in the urban centres included in Baldini Lippolis' catalogue.

explaining that houses are considered elite when they exhibit the 'physical signs of pretension' rather than depending on the status and occupation of the people who owned them. This focus has profoundly shaped the study of Late Antiquity, which is characterised by an understanding that societal hierarchisation was increasing as elite houses were becoming more sumptuous and used as instruments of dominance (Bowes 2010: 18). There is a need to study more ordinary houses to achieve a more well-rounded comprehension of this historical period.

Consequently, the dataset on non-elite house case studies is limited. Often, little information was recorded on the excavation of non-elite houses; in many cases, no plans or drawings were included in the publication. Sites such as Gerasa (Jerash, Jordan), which have been under investigation for decades, had little effort put into the investigation of the domestic quarters in contrast to that of public buildings (Walmsley 2007: 239). Therefore, the selected examples are not meant to be comprehensive in the archaeology of non-elite houses in several parts of the Eastern Mediterranean and North Africa but to offer an insight into the variety of house buildings and architecture followed by a comparison with the case study house of this thesis (Figure 208).

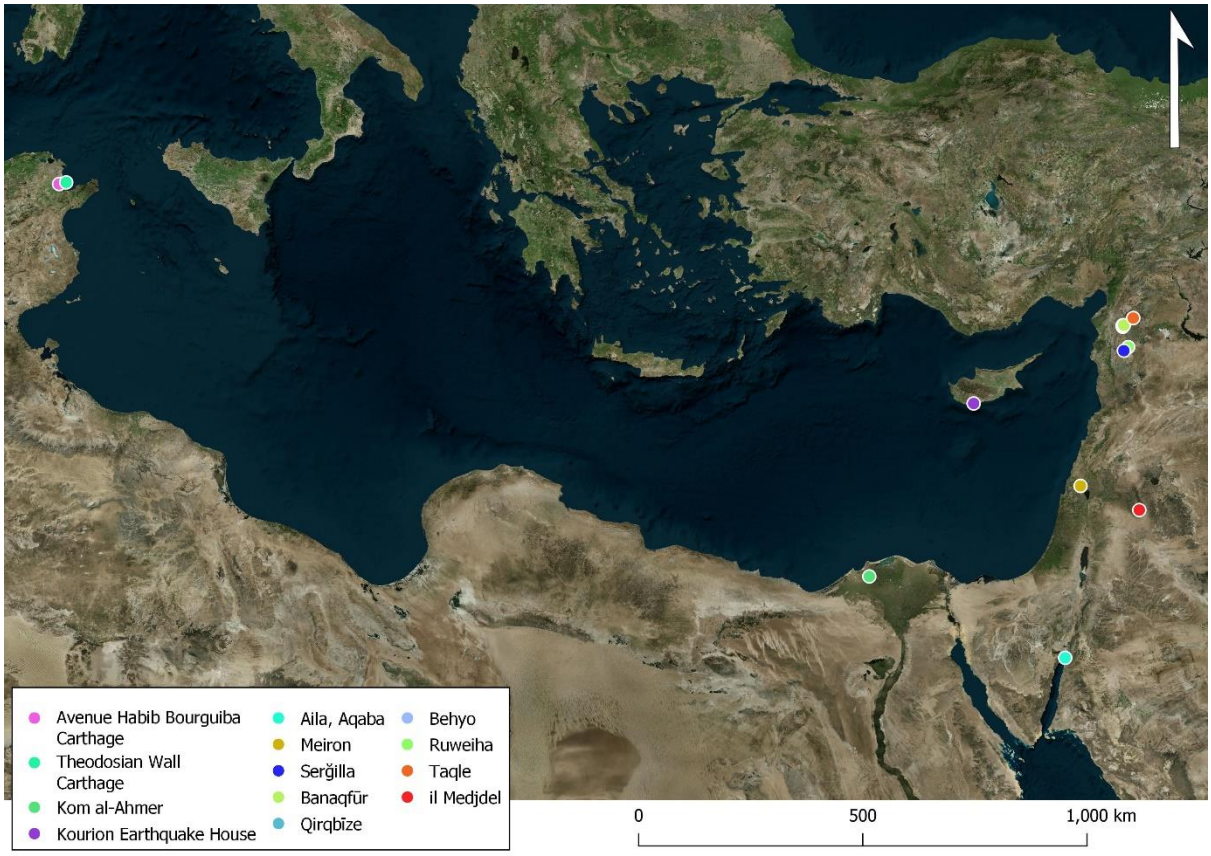


Figure 208 Location of the sites considered in the following analysis (background image Bing Maps, 2022).

5.3.1 – Cyprus

The issue with domestic archaeology in Cyprus, as elsewhere, is that the focus has been on elite dwellings and public buildings, with few studies focusing on non-elite housing. Costello (2014: 42) remarked on this concern in the analysis of the Earthquake House at Kourion, also mentioning a similar situation for the rest of Cyprus and, in general, for the Eastern Mediterranean. Mikocka's (2018: 128) analysis of the Late Roman Insula in Nea Paphos also noted that it could not be compared with the Earthquake house due to its more functional architecture.

5.3.1.1 – The Earthquake House (Kourion)

The Earthquake House is located at the site of Kourion. It was built in the late first or early second centuries CE, but a more detailed dating has not been attained since the earlier levels of the house have not been as extensively excavated as those of the final occupation (Costello 2014: 42). It was destroyed during the late 4th century due to an earthquake (Costello 2014: 1). The house was abandoned and no longer inhabited; thus, it was left in a wrecked state. The house has been described as non-elite, though urban non-elite seems to be a more appropriate term as the artefacts recovered from the remains suggest that the inhabitants were not so modest (Costello 2014: 43). The house had a footprint of ca. 397 m^2 (Costello 2014: 42), but the original plan was expanded and modified throughout its use. Initially, the house was subdivided into three elements: the courtyard and colonnade, plus three rooms placed west of the courtyard and another two placed south of the courtyard; in addition, an alleyway led to the courtyard from outside (see Figure 209) (Costello 2014: 33, figure 4.4). Then the house was expanded and transformed: some rooms were added while others were subdivided (see Figure 210) (Costello 2014: 38, figure 4.8). The added partition walls did not always extend upwards enough to the rooms' full height; some doorways were blocked, which seems to have been intended as part of the remodelling process (Costello 2014: 40, 42).

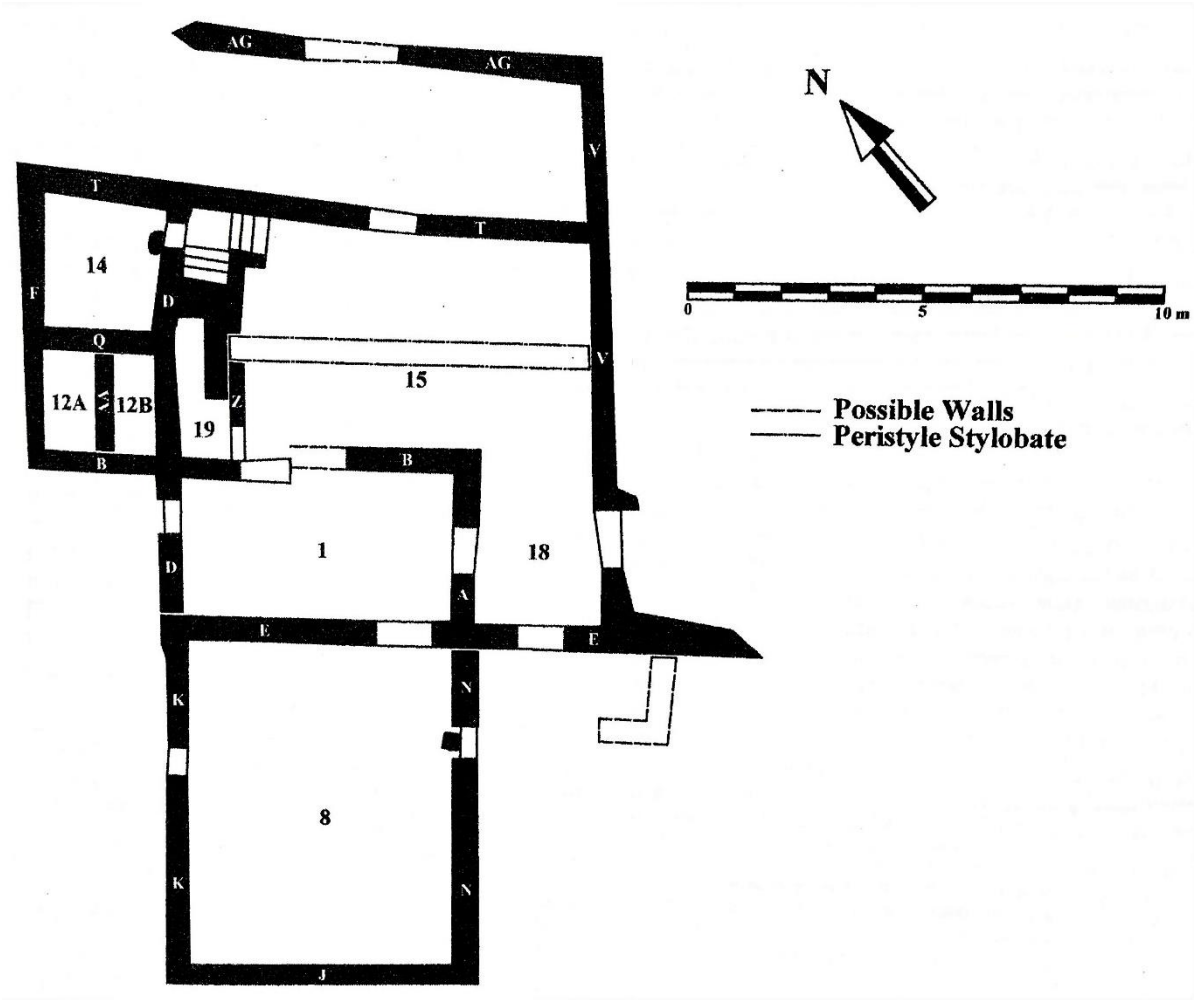


Figure 209 Plan of the initial phase of the Earthquake House (Costello 2014: 33, figure 4.4).

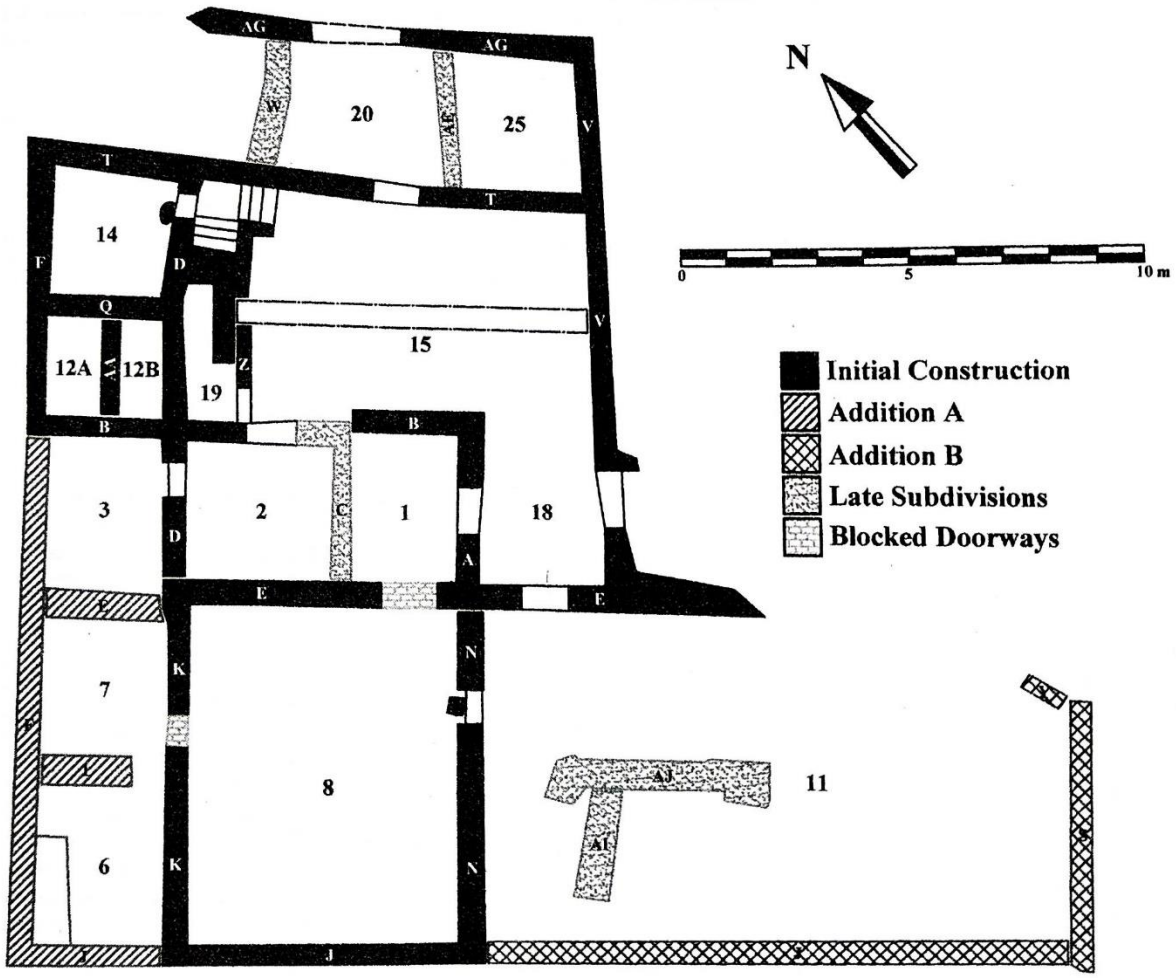


Figure 210 Plan of the last phase of the Earthquake House (Costello 2014: 38, figure 4.8).

The house's plan and construction have been described as a mix of elements from Graeco-Roman and indigenous Cypriot architecture, of which some construction techniques are still used today (Costello 2014: 32, 42). Limestone blocks constitute the foundations, and the superstructure was in mudbricks, whose decayed remains were found within the rooms due to the earthquake-induced collapse. No evidence was found for painted plaster, but the walls had been coated with mud plaster. The beaten-earth floors were uneven and stood at a lower level than the entrances, which usually also had threshold blocks (Costello 2014: 31–2). There was no evidence for what Costello referred to as aristocratic architectural elements,[155] but the reader is cautioned that this was either a deliberate choice of the inhabitants or that they preferred not to convey their status through architecture (Costello 2014: 105).

Costello (2014: 39) described the modifications applied to the house as 'a common phenomenon observed in Late Antiquity' not just in public buildings but also in private structures (Ellis

[155] Peristyle courtyard, mosaics, wall paintings, apses, etc.

1988: 567–69). The changes seem to have stemmed from the personal needs of the inhabitants, possibly as a response to an increase in household size, which required more space and separations for the families/groups or even triggered by a shift in the socio-economic situation of the inhabitants (Costello 2014: 105). Indeed, it has been estimated that the inhabitants could have ranged from two to three families/groups (Costello 2014: 97). It was not possible to understand the order in which the modification occurred due to how the excavation had been carried out, which did not explore the levels antecedent to those dated back to the 4th century CE (Costello 2014: 42, 105).

All rooms, except for the kitchen and the stable (rooms 14 and 2), seemed to have been used for multiple activities: this understanding was reached due to the presence of material culture that could be used for two or more separate activities and the evidence points towards these activities occurring in more than one area of the house (Costello 2014: 42, 86, 88, 97). The house's spaces were multifunctional and used per the inhabitants' needs and preferences. It is suggested that the upper floor, indicated by the presence of an L-shaped stairway, would have been used for habitational purposes, whereas the ground floor would have been reserved for occupations related to household sustenance, animal keeping, storage, and workshop activities (Costello 2014: 89). This understanding was reached based on the analysis of materials from Pella (Greece) and ethnographic evidence from Cyprus.

No bathroom facilities were identified within the house, which led the researchers to suggest that the inhabitants most likely used containers to carry out these activities rather than physical facilities (Costello 2014: 104). Nevertheless, the house was equipped with a cistern: it occupied a small room coated in hydraulic mortar, adjacent to which there was a similar small room filled with soil to counterbalance the water pressure. Interestingly, the cistern was accessible from the upper storey (Costello 2014: 36).

The main activity that could be identified in the remains of the ground floor was storage, particularly of ceramic vessels, both broken and intact, possibly to reuse or recycle them (Costello 2014: 106), as well as house waste disposal, revealed by the accumulated waste in some of the rooms (Costello 2014: 77, 85). Regarding the material culture, some similar patterns to those of the case study house were noted: no finds related to textile production nor domestic cult activity. Concerning the latter category, the only finds that could relate were a copper alloy and iron *tintinnabulum*, likely linked to Pagan beliefs as an apotropaic device, and a Chi-Rho ring (Costello 2014: 103–4). On the other hand, what was described as a 'significant glass assemblage' was retrieved from one of the rooms of the additions (Costello 2014: 67).

5.3.1.2 – Cross-comparison with case study house

Concerning the layout, the Earthquake house's initial plan is irregular; the architectural additions modify it, but it remains irregular. Costello (2014: 31) did not find close layout parallels; however, there is mention of certain elements resembling those of other domestic buildings in Kourion, elsewhere in Cyprus, and the Near East, at Meiron. Regarding the construction, stone and mudbrick have been used in Cypriot architecture since prehistory (Knapp 2013: 122; Wright 1992: 414) and were also used in modern times (McHenry 1984: 37–39); therefore, like in Egypt, the available building materials best suited for the area and climate continued to be used.

A substantial similarity concerns the house's remodelling throughout its use through architectural additions. The remains of the Earthquake house allow for the identification of internal subdivisions, which is not the case of the Kom al-Ahmer Late Roman house from what can be seen in the preserved remains. The ground floors of both houses were used for miscellaneous activities related to house subsistence, whereas the upper storey(s) seemed to have been reserved for other activities (such as sleep). While the case study house's preservation conditions are not excellent, it is interesting to note that the Earthquake house, which was no longer inhabited following the destruction, revealed a fluid use of space, with no more than two rooms being reserved for specific activities that were not carried out elsewhere. In contrast, the remaining rooms showed signs of multiple activities being performed. On a further note, neither house had a bathing room nor toilet facilities. Concerning the inhabitants' belongings, few instances of artefacts related to their personal beliefs were retrieved. In both cases, they expressed a duality in possibly having adopted Christianity as a religion but maintaining some Pagan rituals that may have been customary. It could not be excluded that they practised different religions if more than one group or family inhabited the house.

Therefore, the comparison shows that the architecture and related building practices of both houses were tied to the local customs and that their inhabitants chose, or were pushed by necessity, to modify the original design of the dwelling. Other non-elite dwellings have been identified in excavations at the sites of Kalavassos-Kopetra (Rautman 2003: 131–143) and Agios Kononas (Fejfer and Mathiesen 1995); however, the houses were not fully investigated and are of later date (6th-7th centuries CE). Even so, Costello (2014: 42) remarked upon a visible architectural continuity between the Roman and Byzantine periods; in turn, Rautman (Rautman 2003: 142–3) also observed continuity in building practices of the excavated houses of Areas IV and VI at Kalavassos-Kopetra (Figure 211 and Figure 212) with that of Medieval Cyprus. These houses also had a stone foundation while the superstructure could have been of mudbrick; an alternation between roofed rooms and open courts is mentioned (Rautman 2003: 142).

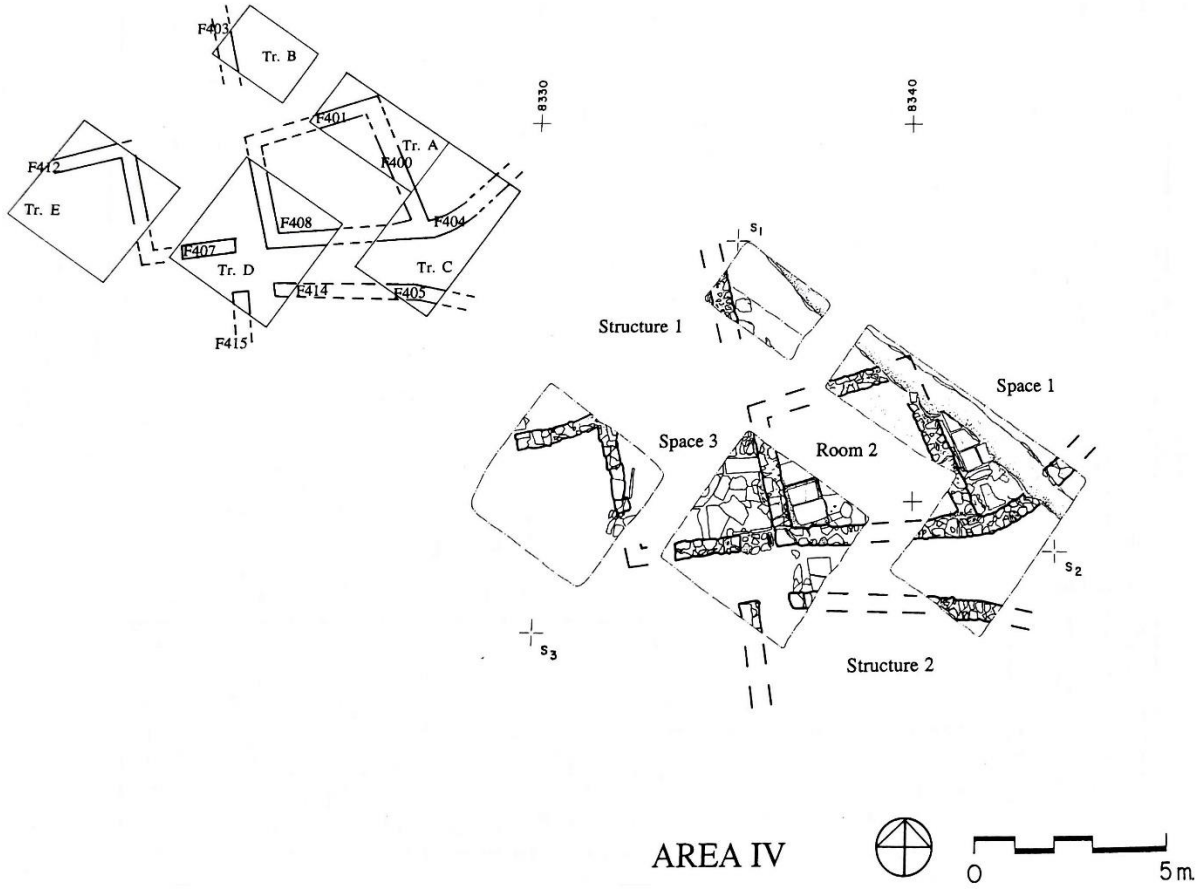


Figure 211 The trench plan (to the left) and the state plan (to the right) of Area IV house at Kalavassos-Kopetra (Rautman 2003: 132, figures 3.56 and 3.57).

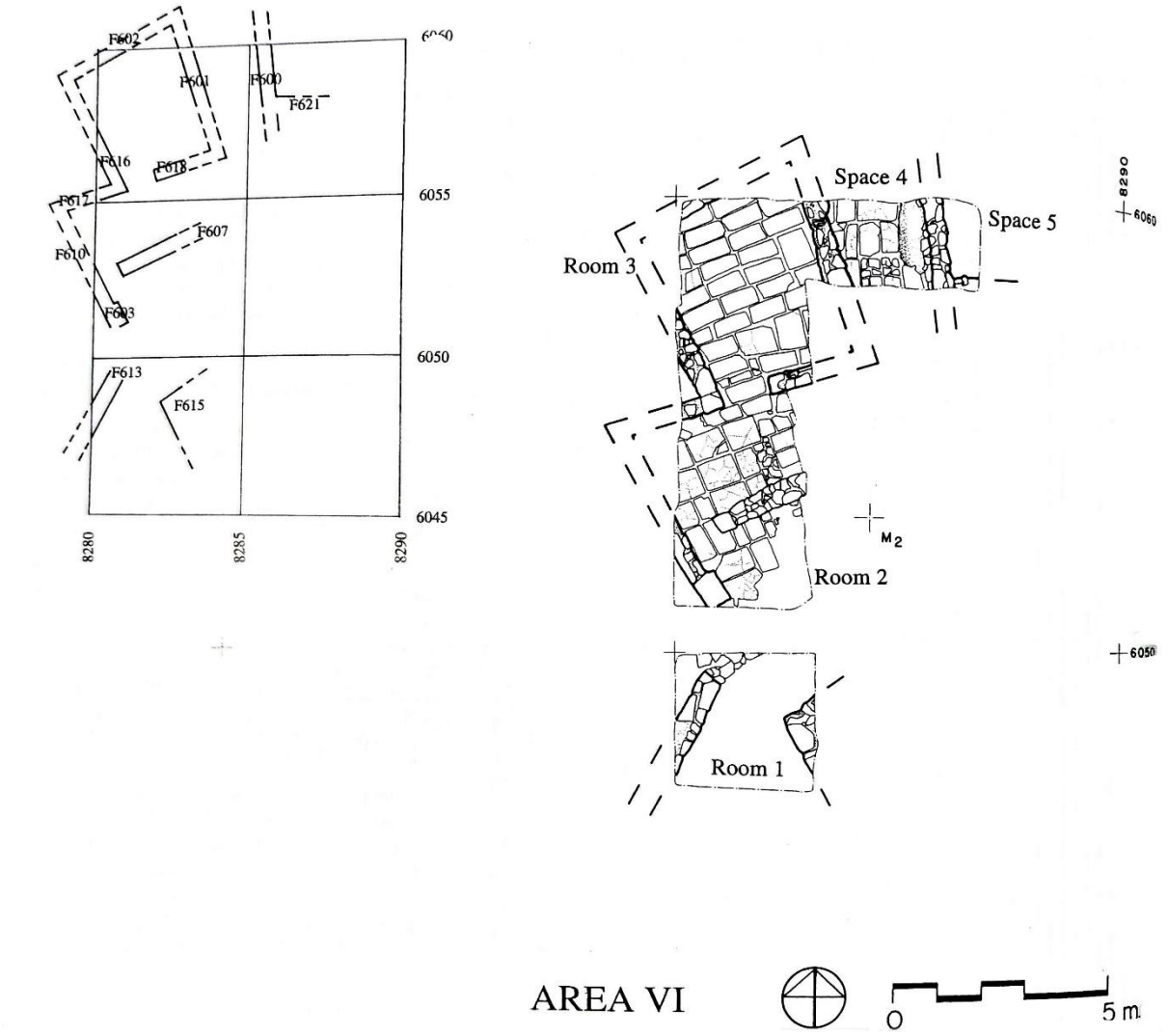


Figure 212 The trench plan (to the left) and the state plan (to the right) of Area VI house at Kalavassos-Kopetra (Rautman 2003: 136, figures 3.61 and 3.62).

5.3.2 – Palestine

5.3.2.1 – The Patrician House (Meiron)

The 'Patrician House' at Meiron was constructed in the early 4th century CE and abandoned by 360 CE, within the chronological phase known as Stratum IV (250-365 CE) (Meyers, Strange and Meyers 1981: 51). So far, it is the only house at Meiron fully excavated (Mattila 2013: 118). In the excavation publication, Meyers, Strange, and Meyers (1981: 51, 54) refer to it as 'a large, well-constructed villa;' the name bestowed on it alludes to the fact that they believe its inhabitants to have been wealthy also due to the finding of 460 bronze coins and a variety of artefacts, particularly for personal adornment (such as jewellery and bone objects). Nevertheless, there has been some debate whether the house and its inhabitants were non-elite due to the dimensions and style of the building (Costello 2014: 42;

Hirschfeld 1995; Mattila 2013: 118): the house was two stories high (Figure 214), but its ground floor plan does not go beyond 80 m^2 (excluding the walls) (Figure 213 and Figure 215) and 130 m^2 when including the courtyard (room A) and the upper two stories (Mattila 2013: 118; Meyers, Strange and Meyers 1981: 51).[156]

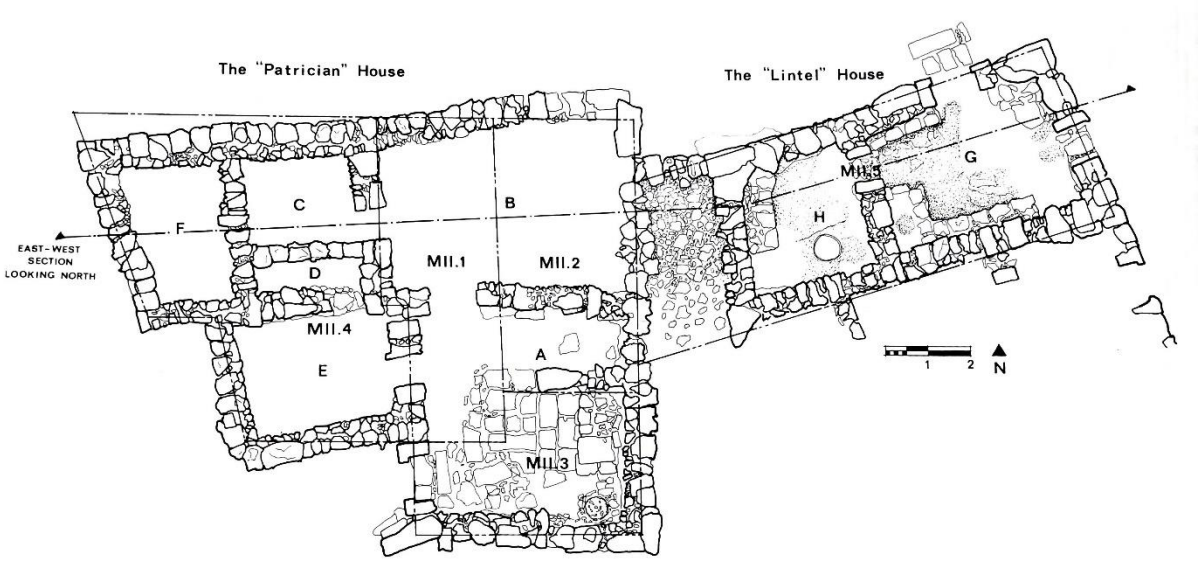


Figure 213 Meiron, drawing plan of the Patrician house (to the left) and the Lintel house (to the right) (Meyers, Strange and Meyers 1981: 52, figure 3.14).

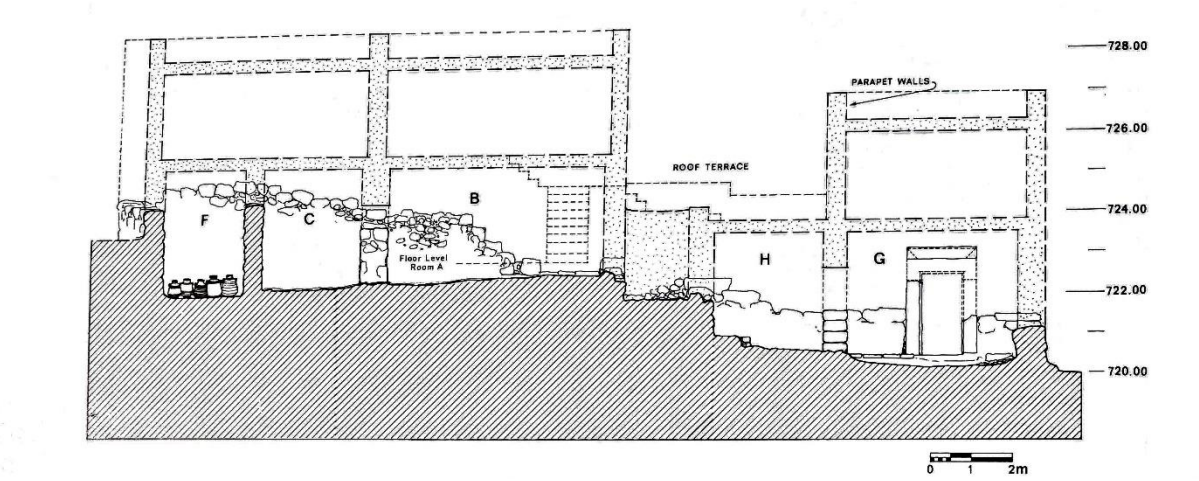


Figure 214 Meiron, section and cutaway drawing (looking north) of the Patrician house (to the left) and the Lintel house (to the right) (Meyers, Strange and Meyers 1981: 52, figure 3.15).

[156] It was half the size of the Earthquake House (Costello 2014: 42).

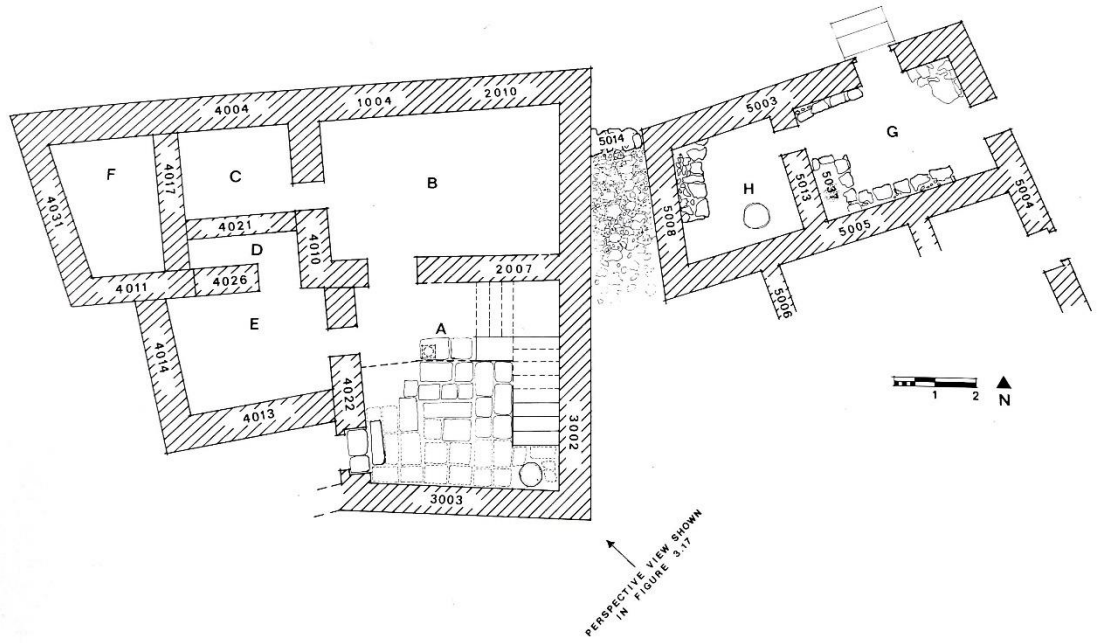


Figure 215 Meiron, block plan drawing of the Patrician house (to the left) and the Lintel house (to the right) (Meyers, Strange and Meyers 1981: 53, figure 3.16).

The architectural survey denoted that the original building underwent modifications; however, it was not possible to understand the order in which they occurred. During the house's final phase of use, the ground floor's layout consisted of one courtyard and five rooms (Meyers, Strange and Meyers 1981: 55). It was described as a 'two-wing' house (Hirschfeld 1995; Meyers 2007). The walls were made of stone, laid dry; it had been constructed of two rows of stone, as the other Middle and Late Roman periods buildings investigated so far at Meiron. The debris from the collapse of the second storey was also stone; it is assumed that the walls were made entirely of stone, possibly coated with straw-bound mud grouting or plastering. Two rooms (C and D) exhibited remains of mud plaster surfacing over the exposed bedrock. The level inside house was lower than that of the door threshold (Meyers, Strange and Meyers 1981: 58–9). The finding of a significant number of iron nails has been associated with the use of wooden timbers and the flooring of the upper storeys (Meyers, Strange and Meyers 1981: 54).

The courtyard was paved and unroofed: it included an external staircase that led to the above storey and an oven in the southwestern corner.[157] The courtyard provided the only access to the house, from which there were two entrances for two different rooms (B and E, respectively). The remainder of the rooms (C and D) could only be accessed via the abovementioned rooms. This duality has been interpreted as having relation to the use of the rooms, with Room B used for work[158] and Room E

[157] The oven was positioned at the foot of the stairs; however, the investigators exclude that it could have been a later re-use of the house or a squatters' addition as the material culture retrieved from the courtyard dates consistently with that found within the house (Meyers, Strange and Meyers 1981: 58).
[158] This interpretation revolves around the finding of a basalt mill.

potentially being a semi-public part of the house. On the contrary, Room F, which was a sort of storage space,[159] had no access, which led the investigators to think that it could have been accessible solely from above, perhaps through a trap door or with the use of a wooden ladder (Meyers, Strange and Meyers 1981: 57–8, 65). The wall dividing rooms C and D and those enclosing room E have been interpreted as a remodelling addition because it does not bond with the other walls (Meyers, Strange and Meyers 1981: 58).

The house was abandoned in 360 CE; the material culture denoted evidence of squatting during the chronological phase Stratum V (365-750 CE); however, the only architectural evidence for re-use of the house in a later period is a small, rectangular building, dating to the early Byzantine period, which was constructed using some of the extant walls of the house. Interestingly, such sporadic post-abandonment use is unusual for Meiron, as there is evidence for later occupation in other areas of the site (Meyers, Strange and Meyers 1981: 53–4).

The layout and elevation of the Lintel house can be seen in Figure 213, Figure 214, and Figure 215. Though only two rooms were excavated, the investigators suggested that it was larger than the Patrician house. The two houses 'are linked by a common roof-terrace' and formed part of the same insula (Meyers, Strange and Meyers 1981: 53). What could be understood so far from the excavated part is that the Lintel house was also built and used during the Stratum IV phase (from the mid-3rd to mid-4th century CE) (Meyers, Strange and Meyers 1981: 73). Like the Patrician house, the Lintel house could also possibly have had two storeys. One hundred thirteen bronze coins were retrieved from the two excavated rooms, interpreted as feasibly having a public function, such as a shop. This interpretation was influenced by the striking lintel entrance (after which the house takes its name) and the presence of benches, or platforms, inside both rooms. The rooms could have been used as work areas; there also was a shallow bin rock-cut into the ground's bedrock in the second room. Overall, these considerations are suppositions as the material culture did not indicate any specific activity (Meyers, Strange and Meyers 1981: 73, 76).

5.3.2.2 – Cross-comparison with case study house

Meyers, Strange, and Meyers' interpretation of the Patrician house as a villa has been argued by Costello (2014: 42), whose study regards the Patrician house as the best comparative evidence for the Earthquake house due to the absence of conventionally 'elite' architectural elements (mosaic floors, colonnades,

[159] The interpretation of Room F was manifold. Initially, it was regarded as a storage space, given that there was no access. The finding of 19 storage jars confirmed it; however, the jars contained foodstuff (from walnuts to wheat, barley and legumes) that had been fired, some of which were carbonised, but the jars displayed no sign of burning. In addition, the finding of a semi-circle of stones, in the southwestern corner of the room, enclosing a small hearth in which two glass plates had been left; also a broken bronze bell and an iron sickle blade were retrieved from the room. These artefacts and the presence of burnt stored food placed in a room without access has led some to suppose that it could have had a religious meaning (Meyers, Strange and Meyers 1981: 60–2, 65, 71–2).

wall paintings). Costello contended that both houses represent non-elite vernacular architecture resulting from local architectural and cultural customs. Meyers agreed that the local building customs were followed at Meiron (Meyers 2007: 123). As such, it is applicable for comparison with the case study house, and a few similarities can be observed: the eventual architectural modifications to the ground floor that occurred after the building's construction, a modest number of rooms (four given that the smallest one has been interpreted as a pantry) (Meyers, Strange and Meyers 1981: 58), multifunctional use of the ground floor rooms as well as possible vertical zoning, reserving the upper storey for the living quarters.

The additions to the house included the partitioning of a room, the possible creation of a pantry, and the construction of an extra room. While the former would have only concerned the inhabitants, the latter implied availability of space and an authorisation (either formal or informal) to carry out the construction. The latter resonates with the case study house's eastern addition, which is considerably large and requires available space, assuming the compliance of the neighbours. Regarding space, Meyers, Strange, and Meyers (1981: 77) pointed out that there was an attempt to follow a Roman grid plan, but the steep local topography ultimately dictated what arrangements were feasible or not; this could have allowed for incongruencies in terms of space between the structures.

The Patrician house's rooms dimensions are not specified not only for the largest room, which is described as a 3 x 2.2 m space (Meyers, Strange and Meyers 1981: 58); however, according to the plans' scale, the room appears to be bigger, more like 5 x 4 m. These dimensions are roughly 50 cm wider than those of two rooms of the case study house. The other rooms are all smaller. Concerning space availability within the house, Mattila (2013: 128) compared the area inside the Patrician house with that of the median ground plan of the Karanis houses dating from the 1st to the 3rd century CE, which was 70 m^2 (Alston 1997: 27–8). The discussion hinged on the fact that the median size of the Karanis houses was comparable, albeit a bit smaller, to that of the Patrician house, but because the former had upper storeys and also basements, they 'may have offered somewhat more space to its inhabitants than […] the two-storied Meiron Patrician house.' The same reasoning could be applied to the case study house, whose ground plan, including the eastern addition (*House main phase – subphase 4*), was approximately 70 m^2. Ultimately, the two houses seem to have similar sizes, both obtained through the expansion of the house via architectural additions; nonetheless, it should be noted that the Patrician house had a private courtyard, whereas the case study house's courtyard was open-space and likely shared with other houses. Thus, its size cannot be accurately measured nor included in the house's area.

The use of the ground floor rooms seemed to have been devoted to household subsistence and work activities given the types of finds retrieved (a basalt mill, lithic objects for food preparation, and metal tools such as iron blades) (Meyers, Strange and Meyers 1981: 53–4). At the same time, one of the rooms (E) has been assigned a possible semi-public function due to the finding of a low table; this interpretation is contended by the finding of large charcoal patches, which the investigators considered

as possible indicators of work activities (Meyers, Strange and Meyers 1981: 58). This instance reminds the complexity behind the interpretation of spaces and the fluid nature of domestic space, which could be adapted and transformed, architecturally and functionally, pending on the circumstances. Though unsure of what activities were carried out, the investigators do not refer to any commercial ones. Instead, the two investigated rooms of the neighbouring Lintel house seemed to have had a more public, possibly commercial, and domestic purpose (Meyers and Meyers 2015: 386–7). Though less abundant than in the case study house, the coin finds could indicate commercial activities as they did not seem to have been safeguarded as a hoard and could fit with the work activities undergoing on the ground floor.

Meyers, Strange, and Meyers (1981: 51) noted that most of the inhabitants' possession had been removed from the ground floor and that when the second storey eventually collapsed, following the abandonment, the belongings accumulated upstairs came down too. They enforce this explanation by stating that the living quarters were upstairs, hence why most personal objects, including the coin finds, had been stored on the second storey. The explanation could easily prompt a discussion on abandonment processes, mainly asking why the ground floor possession would be removed but not the ones upstairs, particularly when the remains bear traces of post-abandonment use; however, one can only trust the excavation report. If anything, the report emphasises a distinction between the ground floor and the upper storey, the latter conceivably being reserved as a more private zone within the house. An interesting aspect of this house is that it shared a terrace with the Lintel house, leading to a series of questions regarding sharing a conceivably more private space between two houses, potentially a social family space. Arguably, a terrace would be more private than a courtyard; however, the artistic rendering of the Patrician house in the context of the village (insulae at Meiron were on average 20 x 20 m) (Meyers, Strange and Meyers 1981: 76) (Figure 216) shows that the terrace could have been more exposed than the house's courtyard, thus actually making the latter a more private space reserved for the household and its visitors. The shared terrace also stimulates considerations on the relationship between the two house's inhabitants, given that the terrace would have had access to the private living quarters in the upper storeys. For now, these remain speculations.

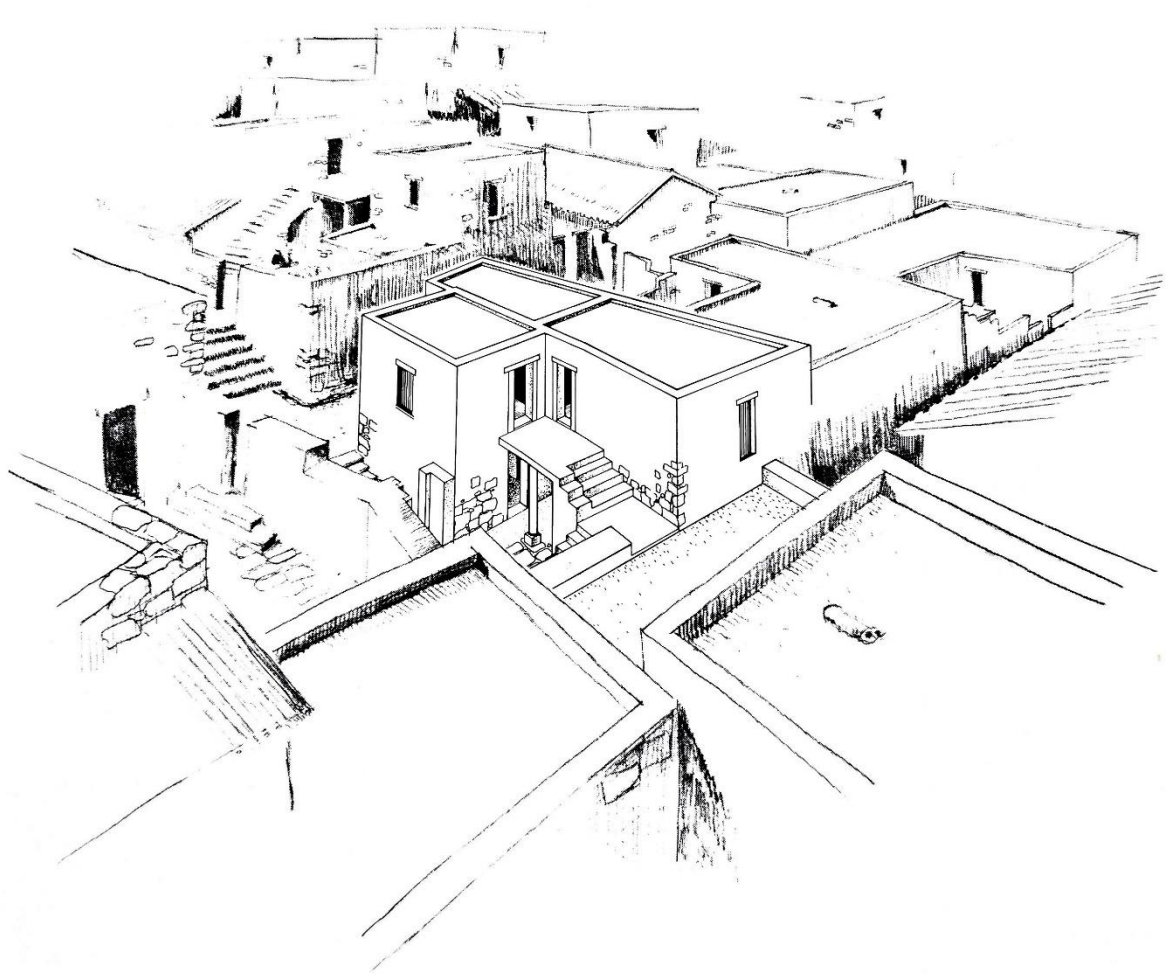


Figure 216 Meiron, the artistic rendering of the Patrician house in the village context (looking northwest) (Meyers, Strange and Meyers 1981: 60, figure 3.20).

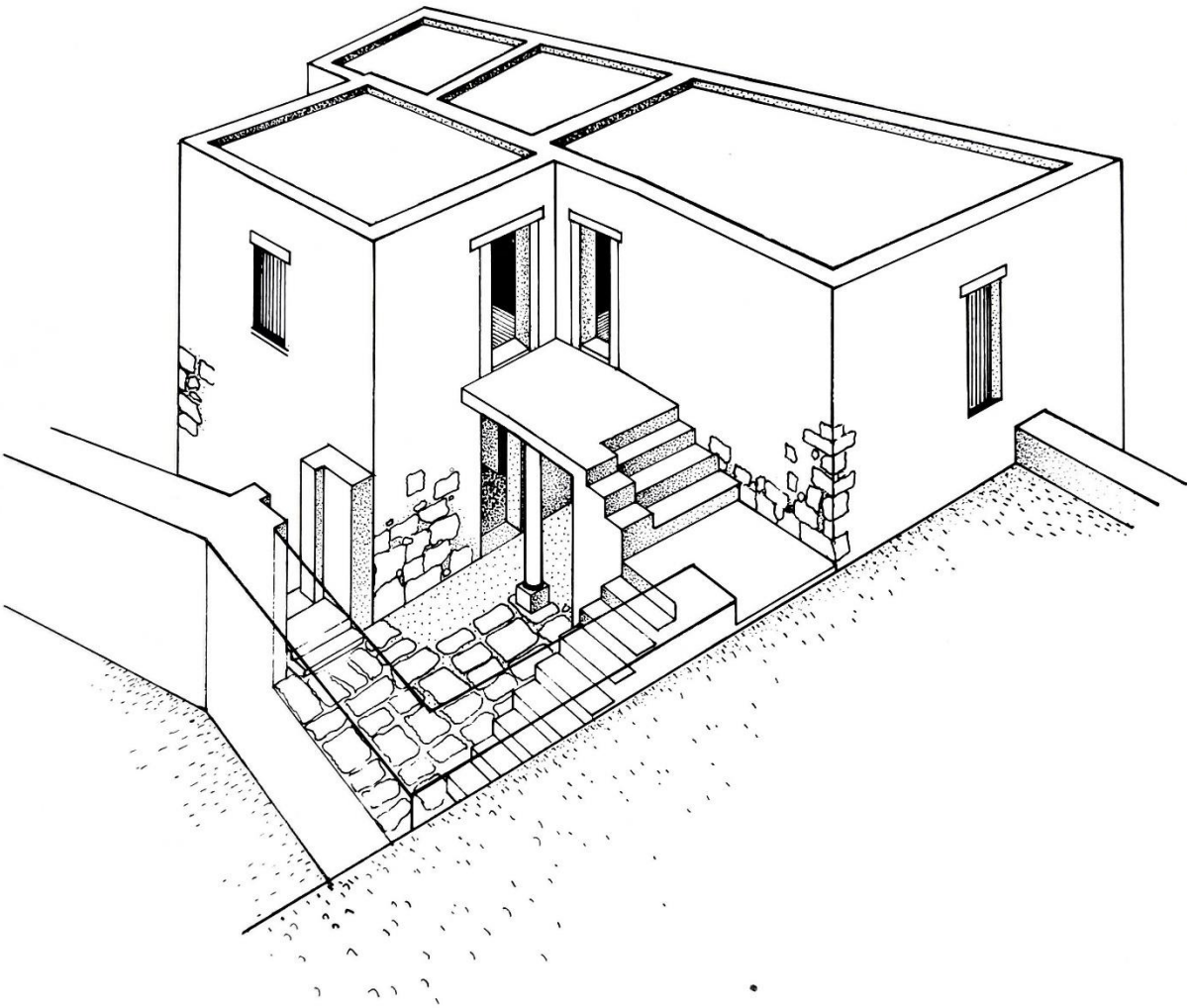


Figure 217 Meiron, the artistic perspective drawing (looking northwest) of the Patrician house (Meyers, Strange and Meyers, 1981, p. 55, figure 3.17).

5.3.3 – Tunisia

There exists a strong bias in favour of elite houses in the archaeology of Tunisia. In their publication on residential construction in the cities of Roman Tunisia, Bullo and Ghedini (2003: 341) recognise that most of the houses included in their analysis are of mid-high social level.

5.3.3.1 – Carthage

Most Late Roman houses investigated at Carthage were described as high-status, elite. Few non-elite houses have been studied so far, and investigators are well-aware of this shortcoming (Rossiter 2006: 388). What has been described as non-elite Late Roman houses have been excavated at two sites at

Carthage: the Theodosian Wall site, located on the northern edge of the city, and the Avenue Habib Bourguiba site, on the southern edge of the city (Rossiter 2006: 375).

The occupation of the Theodosian Wall site houses dated from the late-4th to the mid-5th centuries CE House 2 has been more widely investigated. According to the pottery evidence, its final occupational phase was in the mid-5th century. It eventually collapsed, and the area was reoccupied in the 7th century (Wells, Freed and Gallagher 1988: 201, 210). It was constituted of at least twelve rooms, including the entrance corridor and the collonaded peristyle open court (Wells, Freed and Gallagher 1988: 200). The peristyle is usually associated with high-status dwellings (Thébert 1987: 357). The investigators suggest that it could also be incorporated in modest houses, but then they note that the peristyle of House 2 had been modified and subdivided (Wells, Freed and Gallagher 1988: 197); in fact, this specific peristyle bore the remains of low walls erected between the pillars of the colonnade during its last phase of use (Wells, Freed and Gallagher 1988: 199). The excavation report concluded that House 2 was originally a 'good house [that] later suffered change, subdivision, and a general degradation of the quality of life' (Wells, Freed and Gallagher 1988: 202); this consideration could lead to assuming that the house had been initially constructed following elite canons and that it was later occupied by inhabitants of more modest means. Indeed, several rooms, including the peristyle, exhibited remains of multiple layers of mosaic floors, often with stone-paved floor laid over (Wells, Freed and Gallagher 1988: 199). The house was also equipped with a cistern beneath the north side of the peristyle. The peristyle's west wall had an opening that was connected to a drainage system running beneath the floors, possibly for the drainage of rain. This drainage system seems to have also served a latrine (human sewage was detected by the analyses carried out on the water-borne deposits), but the excavations did not uncover one so far (Wells, Freed and Gallagher 1988: 199).

The house walls were built in stone, and some of them may have incorporated pre-existing features. There is evidence also for mudbrick walls built over stone foundations; the mudbrick walls are mentioned often in association with partitions and changes to the original layout, such as blocked entryways between rooms (Wells, Freed and Gallagher 1988: 197, 200–2). The investigators recognised different phases of occupation, which seem to be correlated with a change of use, in some rooms (Wells, Freed and Gallagher 1988: 200); for instance, Room 3 (see Figure 218) bore evidence for four phases of mosaic flooring that had been covered by beaten-earth floor layers, and the material culture suggests that the room was eventually used for manufacture (possibly of mudbrick), constructional or artisanal uses (Wells, Freed and Gallagher 1988: 201).

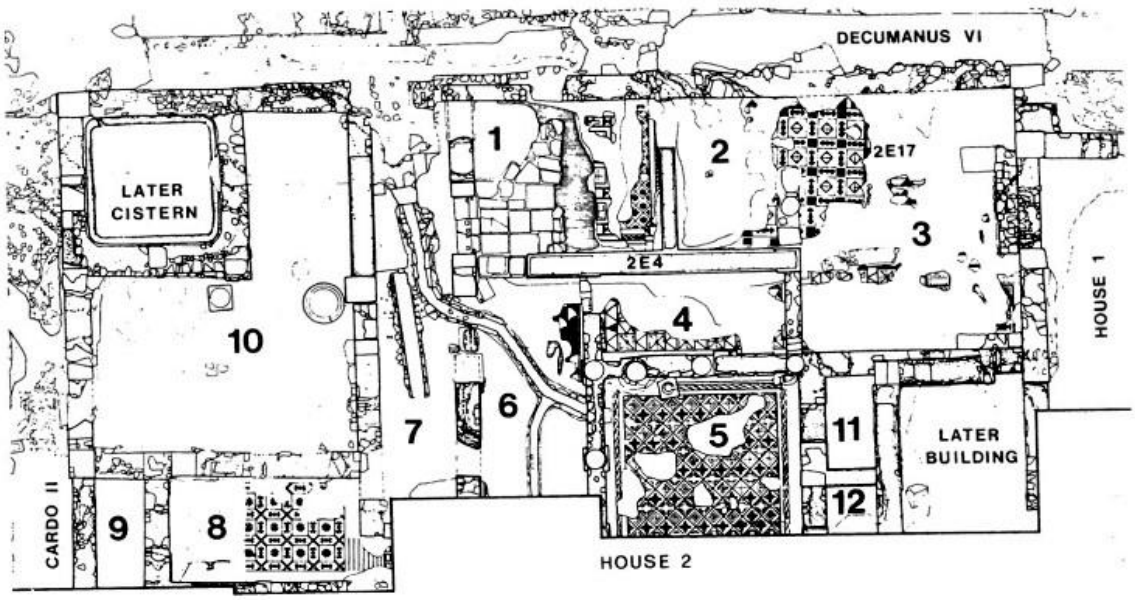


Figure 218 Plan of House 2 at the Theodosian Wall site at Carthage (Wells, Freed and Gallagher 1988: 198, figure 2).

House 1 was only partially excavated; thus, a complete report is not available (Figure 219); however, it could be inferred that its dimensions and layout are similar to those of House 2 (Rossiter 2006: 376). In any case, the excavation results preliminarily dated it to the 4th century CE. The walls had been built with ashlar masonry following the *opus Africanum* technique, and it was also possible to note the presence of mosaics and floors of *opus signinum.* In addition, there was also evidence of changes, such as a partition wall subdividing Room 1 (Wells and Wightman 1980: 52). By the end of the 5th century, the house had been destroyed or collapsed. Like House 2, the occupational layers above it were dated to the 7th century (Wells and Wightman 1980: 53).

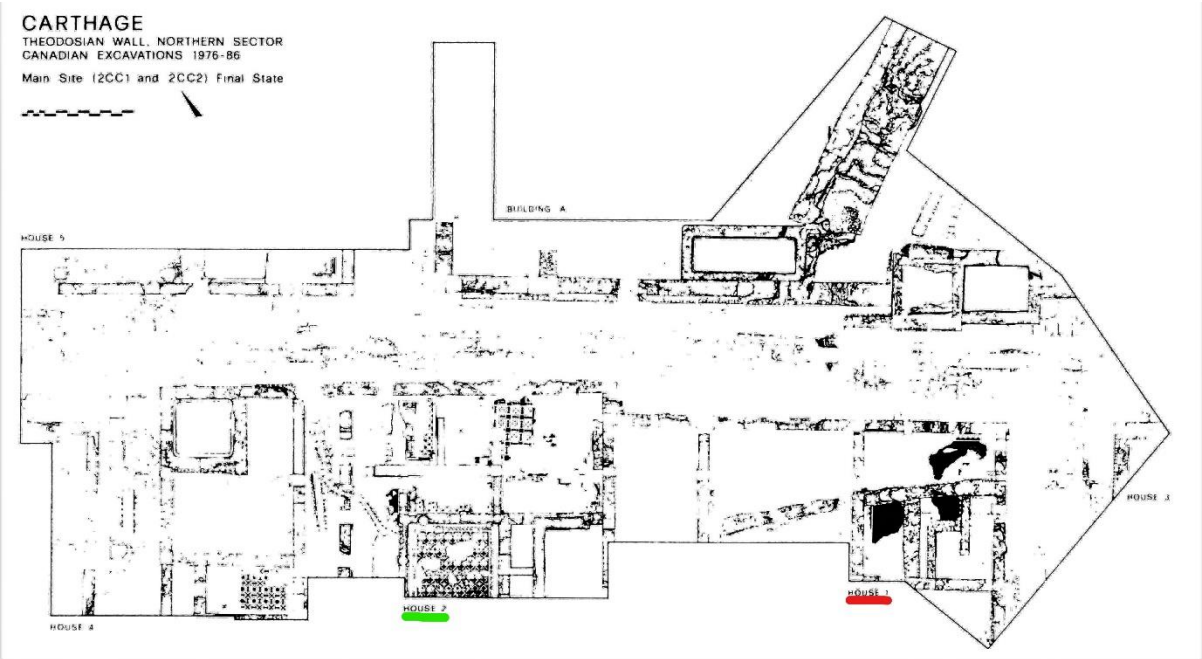


Figure 219 The northern sector of the Theodosian Wall site at Carthage; House 1 is indicated in red, and House 2 is indicated in green (Wells, Freed and Gallagher 1988: 196, figure 1).

The excavations at the Avenue Habib Bourguiba site yielded the remains of a structure referred to as Building 1. According to the pottery evidence, the building had been erected around the 2nd century CE; it seems it was still standing in c. 425 CE, when the city was built, as the latter respected Building 1's southern wall (see Figure 220 and Figure 221) (Hurst and Roskams 1984: 14, 16). The recordable dimensions were c. 20 x 31.5 m, though the length could be longer as the western limit of the building lay beyond the limits of the excavation unit. Building 1 was not completely excavated; the internal subdivisions were not all identified. It could be seen that the external walls were constructed with masonry of mortar rubble in the *opus Africanum* style and that there were remains of mosaic and *opus signinum* floors. The latter was located in the eastern part of the house, whereas the western part was constituted by a yard/stable with stony and stony mortar beaten earth floors. The yard was flanked by columns or an arcade on its northern side; the colonnade could have potentially supported an upper storey floor or balcony. It could also be observed that the house had been equipped with two underground water cisterns (Hurst and Roskams 1984: 14).

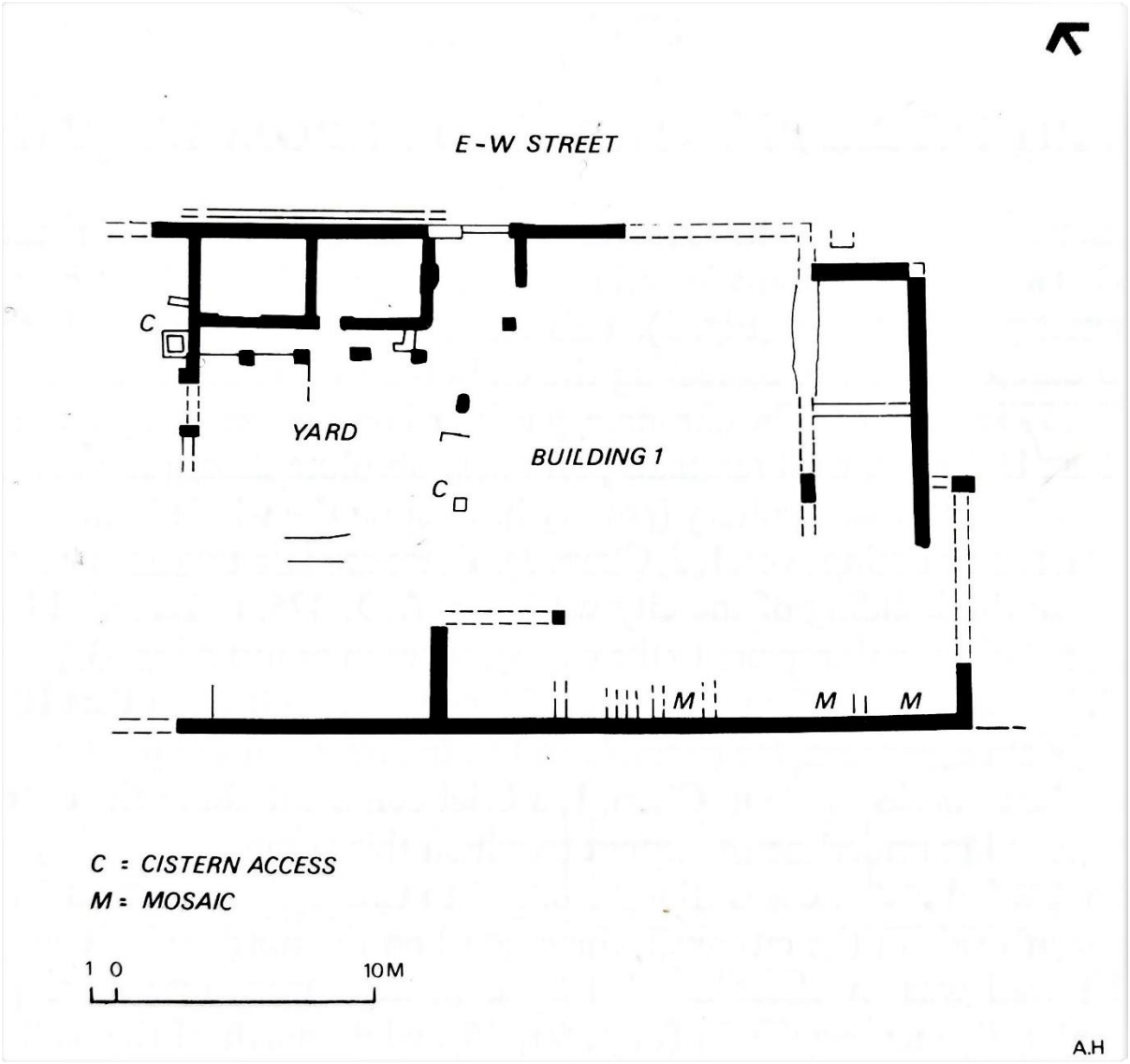


Figure 220 Plan of the Avenue Habib Bourguiba site, Carthage, between 200-400 CE (Hurst and Roskams 1984: 14, figure 4).

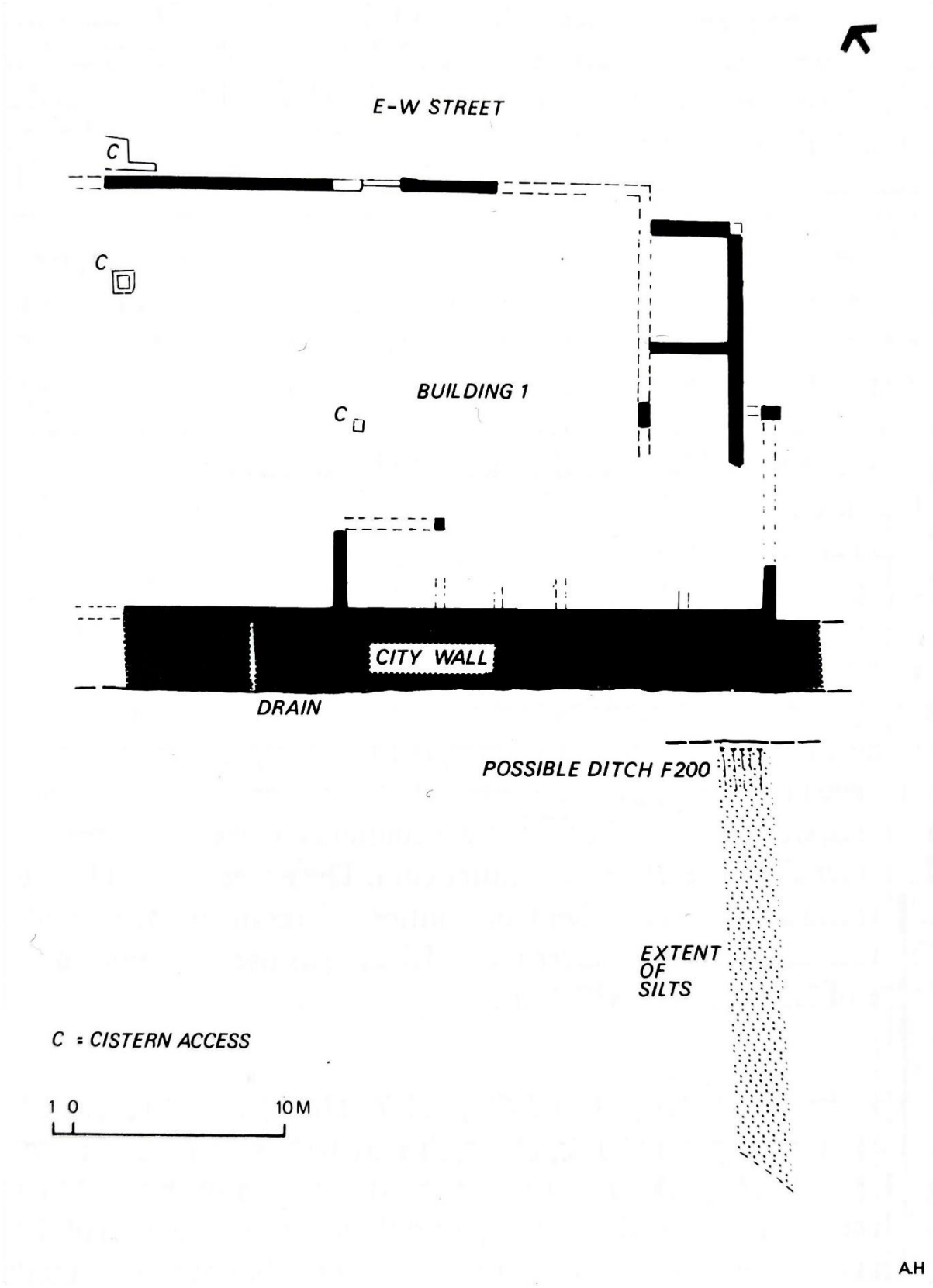


Figure 221 Plan of the Avenue Habib Bourguiba site, Carthage, around 425 CE (Hurst and Roskams 1984: 15, figure 5).

Albeit only partially investigated, the evidence so far seems to point toward Building 1 having some association with farming due to the presence of the yard, the fact that its entrance, facing the street, was wide enough[160] to allow the entry of a cart, and the rooms that surrounded it were without furnishing or adornments. On the contrary, the eastern part bore evidence of mosaic floors. Hurst and Roskams (1984: 43) suggested that if the whole building had been intended to be one property and not subdivided into multiple properties, it could have functioned as a house acting as a farming control centre. The peripheral location of the site also supports this idea.

This house, too, shows evidence of alterations applied after its initial construction. The house's southern part bore evidence of at least three phases of secondary walls, whose construction may be related to the earthquake of 365 CE. At a certain point in the 4th century, the structures in the northwestern part of the courtyard were torn down and covered with nine soil surfaces. The make-up for the second soil surface contained a coin dating to 360-378 CE, and more 3rd and 4th-century coins were recovered from the soil surfaces that were laid out successively. One of the northeast rooms was also re-floored at least once (Hurst and Roskams 1984: 14–5). The need for re-flooring may have been a direct response to the rising level of the street north of Building 1: eight resurfacing constituted by stone and gravel could be observed. Even the entrance to the yard had to be elevated (Hurst and Roskams 1984: 15–6).

5.3.3.2 – Cross-comparison with case study house

The abovementioned cases have been regarded as examples of non-elite dwellings (Rossiter 2006: 376). Rossiter argued that these houses 'show few, if any, signs of conspicuous wealth and are characterised by non-luxury building materials and simple types of decoration' (Rossiter 2006: 375). This consideration adds some complexity to the cross-comparison task since it seems to consider stone[161] as a non-luxury building material and architectural elements such as mosaics and stone floors as simple rather than elite decorations, which is not the case when it comes to Egyptian houses.

The comparison with the case study house denotes several architectural differences, from size, layout, building materials, and decorative architectural elements. The peristyle and the rooms of House 2 in the Theodosian Wall site are described as small (Rossiter 2006: 375), though the largest room measured 5 x 7 m (Wells, Freed and Gallagher 1988: 202). According to the plan in Figure 218, the house's dimensions would roughly be around 18 x 10 m. Building 2 at Avenue Habib Bourguiba is over 30 x 20 m; its yard is also described as small, although it measures about 13 x 10 m (Rossiter 2006:

[160] 2.5 m wide (Hurst and Roskams 1984: 14).
[161] Regarding stone as building material, Hurst and Roskams (1984: 217) comment that most of the stone used at the Avenue Habib Bourguiba was reused from other buildings in Carthage and that re-using stone building materials was a common practice in the Late Antique period.

377). Both houses have a layout constituted by a greater number of rooms than the case study house (though this can only be inferred for Building 2). They are also equipped with cisterns inside the house and embellished with mosaics; both elements represent functional or decorative luxury. In this instance, it would seem that the Roman architectural style had been adopted, but one should not attempt to draw conclusions too hastily, particularly in light of studies that detected the continuation of Punic and Hellenistic practices within Roman housing (Carucci 2006a: 21). Usually, house studies tend to focus on elite housing, and it is of particular interest to read that even members of the upper class, though intending to follow Roman architectural guidelines, would infuse the pre-existing building customs with it, thus creating a housing style within the Roman empire with its specific local identity (Carucci 2006a; Daniels 1995). It should be remembered that although the houses were on the periphery, it was still the periphery of Carthage, a prosperous city where it could have been easier to access and procure materials and crafts that allowed constructors and inhabitants to follow the current trends.

The performance of work activities within parts of the house is akin to these houses and the case study house. Rossiter noted that the function of House 2's rooms, though challenging to understand, changed during the latest occupational phase (Rossiter 2006: 376), and some rooms could have been used for activities related to manufacturing, construction, or artisanry. Building 2, instead, seemed to have part of the house dedicated to farming activities, thus incorporating external work endeavours within the sphere of the domestic walls, albeit apparently separated from the inhabited part. The evidence for modifications of the original layouts throughout the phases of use of the houses is also a shared trace.

5.3.4 – Jordan

5.3.4.1 – Aqaba (Aila)

The Nabatean Kingdom was annexed to the Roman empire in 106 CE. The site of Aila, ancient Aqaba, was a Nabataean city that functioned as a port on the Red Sea. The stratigraphic sequence yielded through the excavations in a residential quarter (Area M) of the city shows that the area was inhabited at least from the Early Roman/Nabataean period (ca 63 BCE-106 CE) until the Byzantine period (324-491 CE). In Retzleff's publication, the Late Roman period is considered between 106-324 CE, and the identified houses date between the 2nd and 3rd centuries CE (Retzleff 2003: 45–6).

The investigated residential sector was constituted of non-elite dwellings (see Figure 222, Figure 223, and Figure 224) (Retzleff 2003: 52). The houses were only partially excavated, but it could be noted that mudbrick was predominantly used; stone was used in building foundations, but deep mudbrick foundations were also used (Retzleff 2003: 46, 49). According to the project's chronology, structure E, a house dating to the first phase of the Late Roman period, was constructed of mudbrick

and granite fieldstones were bonded with mud plaster; the walls were coated with mud plaster, lime plaster, and were whitewashed. It is possible that the roofing would have been in wood, whereas the floors were of beaten earth (Retzleff 2003: 49). More construction of mudbrick and stone walls occurred during the second phase of the Late Roman period (early to mid-3rd century); due to the multiple excavation units and the choice not to remove the baulk between them, it was not possible to understand if the structures represent a single or multiple buildings. An architectural difference between the periods was the shift from stone or deep mudbrick foundations to shallow ones; what is more, the walls were constructed with a variety of materials of lesser quality[162]. A third Late Roman phase could be detected, but it was barely preserved; however, it was possible to record evidence for stone walls and cooking installations, with an indicative date between mid and late 3rd century CE. Ultimately, the area was abandoned, and the function shifted from domestic to funerary, with the presence of an Early Byzantine cemetery (Retzleff 2003: 49).

The decline in building quality observed during the 3rd-century phases has been connected to the 3rd-century crisis; this decline seems to have affected Aila and other Red Sea ports (Retzleff 2003: 62; Sidebotham 1991: 34). In terms of use and function, Retzleff reckoned that the area was residential throughout its use, except for the latest recordable phase of use. The material culture mostly comprised finds of domestic and personal nature in addition to installation related to household sustenance, such as clay-lined ovens and hearths, which were found in the courtyards (Retzleff 2003: 50–1). Structure E bore evidence for activities related to a household terracotta industry during the second phase of the Late Roman period, whereas the finding of some spindle whorls and weaving needles suggested a domestic textile production (Retzleff 2003: 49, 51).

The visible urban plan appeared to have been organised as a grid. The exposed layout of the houses, albeit partial, exhibited a dense pattern of small rooms surrounding open courtyards, a pattern that has been considered characteristically Nabataean (Retzleff 2003: 55). Stone was primarily used as a building material,[163] and it was suggested that the employment of mudbrick at Aila could be related to the unavailability of quality stone in the area (Retzleff 2003: 53).

[162] The building materials incorporated ceramic slag and potsherds, cobbles, as well as bone, coral, and metal debris.
[163] As seen in sites such as Khirbet edh-Dharih, Mampsis (Kurnub), and in the region of Negev.

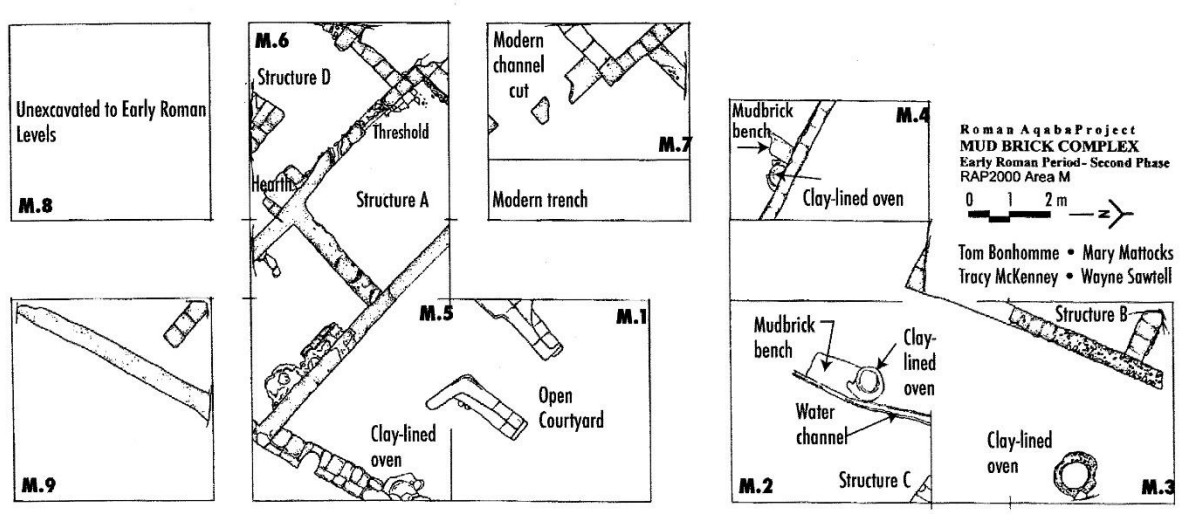


Figure 222 Plan of the structures of Area M at Aila, Jordan: the Early Roman and Nabataean period, second phase (Retzleff 2003: 48, figure 2).

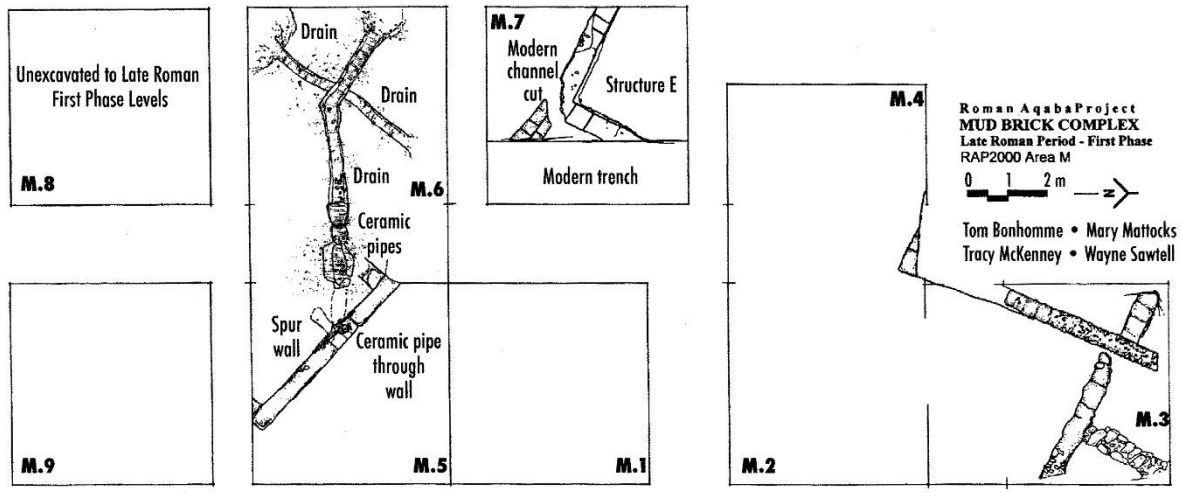


Figure 223 Plan of the structures of Area M at Aila, Jordan: the Late Roman period, first phase (Retzleff 2003: 50, figure 4).

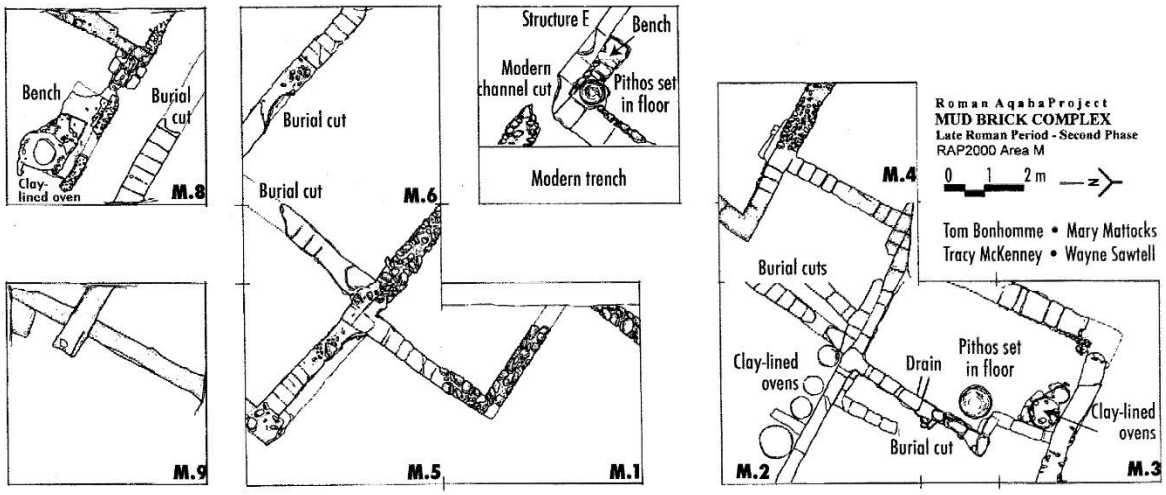


Figure 224 Plan of the structures of Area M at Aila, Jordan: the Late Roman period, second phase (Retzleff 2003: 51, figure 6).

5.3.4.2 – Cross-comparison with case study house

Retzleff concluded that the excavations at Aila had given a glimpse of a kind of Nabataean domestic architecture not solely based on stone architecture. They also traced links to other settlements on the Red Sea, with mention of Egyptian ones too, highlighting a stronger affinity with the Egyptian rather than Nabataean architecture, as well as a cultural connection most probably enhanced by the settlement's function as a port (Retzleff 2003: 54–55, 62). The use of mudbrick is implied as unusual and dictated by the availability of stone resources rather than socioeconomic circumstances.

Like the case study house, the building(s) exhibited architectural changes throughout its use; however, the partial excavation does not allow a precise picture of the developments. The placement of mudbrick and stone walls during the second phase of the Late Roman period over windblown sand deposits or levelling fills (Retzleff 2003: 49) suggests that they could be additions to the main building or structures that did not require solid foundations, thus not rising in height, though it was pointed out that in some instances the remains of the earlier walls were used as foundations for the new walls.

Regarding the use, it was characterised as domestic, as attested by the detection of storage and cooking facilities found in all phases. The evidence for a household terracotta manufacture in Structure E is evocative of a possible workshop with small-scale production (Retzleff 2003: 49) located within the domestic realm. In addition, the courtyards were thoroughly used, seemingly, for cooking activities as clay-lined ovens and hearths were present in all the phases of use (Retzleff 2003: 51).

5.3.5 – Syria

Extensive field surveys in Syria at the beginning of the 1900s revealed several sites with well-preserved house remains (Butler 1903; Butler and Prentice 1919; Tchalenko 1953a, 1953b).

5.3.5.1 – North-Central Syria

The regional survey of Tchalenko comprised the deserted villages and townlets of the Limestone Massif, or Belus Massif, in northwestern Syrian highlands. Houses are included among the studied architectural remains. The survey of the domestic buildings primarily focussed on architecture; indeed, it is mentioned that there were few hints in the archaeological remains regarding how domestic life was organised (Tchalenko 1953a: 12). In the conclusions, Tchalenko (1953a: 399) summarised the development of the studied settlements, which mostly ranged in dating from the 1st to the 6th century CE: peasant villages of Hellenic culture were turned into large private properties during the Roman period and eventually subdivided into small individual farms in Late Antiquity. Nevertheless, it was observed that the settlements maintained their rural character despite their growth during the Roman period (Tchalenko 1953a: 400).

This maintenance of character can also be observed in the housing. The survey identified a type of local dwelling described as modest, long and narrow among the visited sites. It was built in dressed stone blocks and constituted by rooms aligned from east to west, with a long portico adjacent on the south side of the abovementioned rooms covered by a wooden terrace (see type 1 in Figure 225) (Tchalenko 1953a: 10). This type of housing was developed into a more monumental type from the 1st century onwards; the primary influence seems to have been pre-Roman country dwellings of the Antiochene area (Tchalenko 1953a: 11). Combining this development with the utilisation of frame and tile roofs led to the common house type of the 3rd century onwards, which shared similarities with the local type of dwelling: elongated, oriented east to west, with a south-facing façade and a portico. In terms of changes, the portico was two-storeyed and supported by columns or pillars, the house was paired with a courtyard enclosed by high walls with a monumental gate as an entryway. In addition, there were 'utilitarian dependencies' in the courtyard, which were too small to offer space for inhabitation and relatively small in terms of storage space. These dependencies did not exist more often than not, and activities such as stabling and storage were carried out within the house's ground floor. Despite the architectural additions, the houses still maintained a modest appearance (see type 2 in Figure 225), with large, undivided rooms, two, maximum three per floor (Tchalenko 1953a: 12).

Tchalenko (1953a: 356, footnote 6) devised typologies of housing and named them accordingly: the term *villa* referred to a large agricultural unit that housed a family and servants; *farm* referred to modest, family-owned farms, either independent or dependent on the villas; *workers'*

dwelling referred to what was termed as 'primitive house,' small and without annexes. It was also pointed out that many intermediate forms existed between these categories. Besides the different typologies, the layout and execution of the houses were the same, though they changed in size according to the socioeconomic status (compare Figure 225 and Figure 226) (Tchalenko 1953a: 13) as well as the villages in which they were built (Sodini and Tate 1984: 392). Large villas mainly had more rooms, even though the dimensions did not change much, and some outbuildings of varying size in the courtyard; instead, small dwellings were single-storeyed, built of rubble, with one or two rooms, and with small courtyards (sometimes as small as a corridor) (see type 4 in Figure 225).

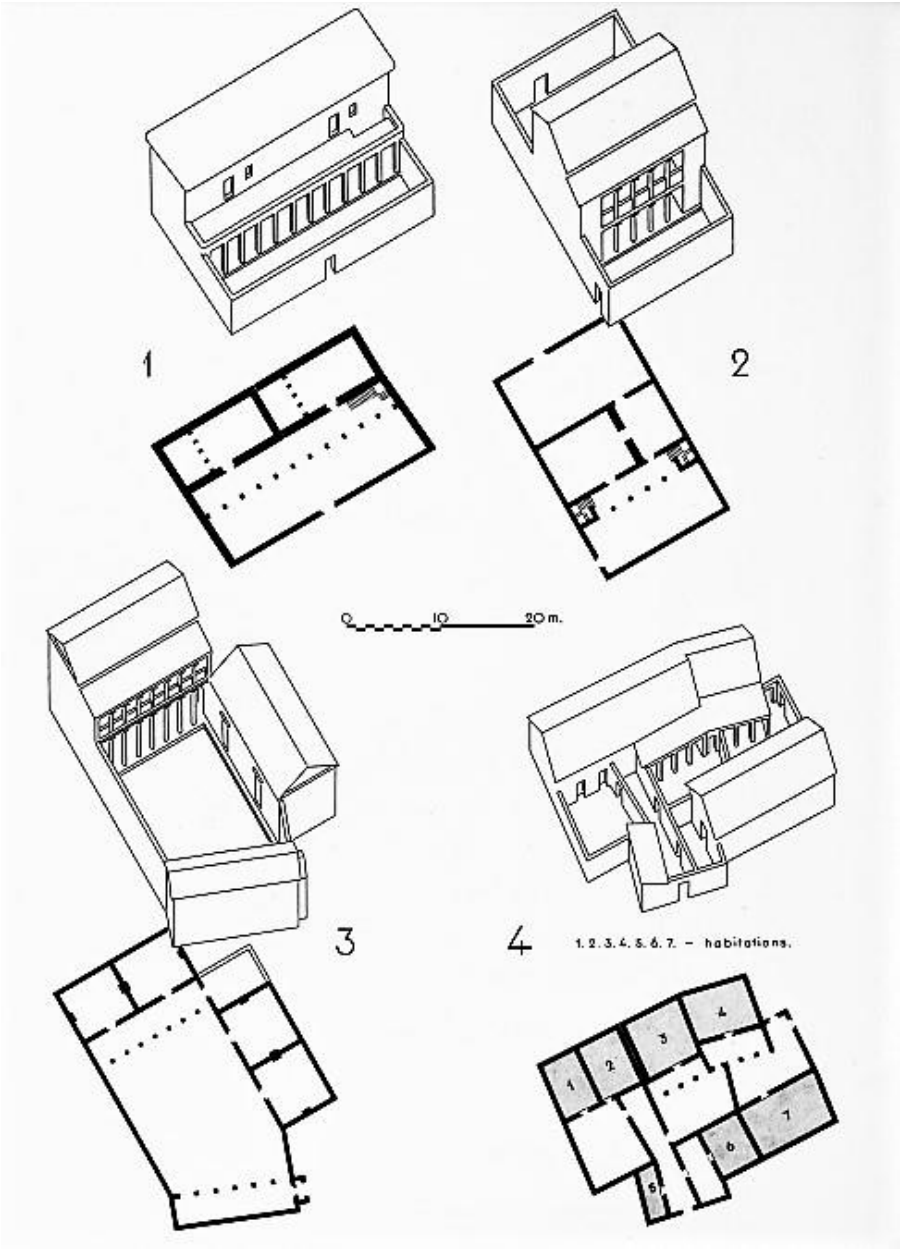


Figure 225 Types of houses in Syria: local house in Taqle (from all periods) (1), 2nd century CE villa at Banaqfūr (2), 4th century CE villa at Serğilla (3) and a group of modest 6th century CE habitations at Behyo (4) (Tchalenko 1953b, plate V).

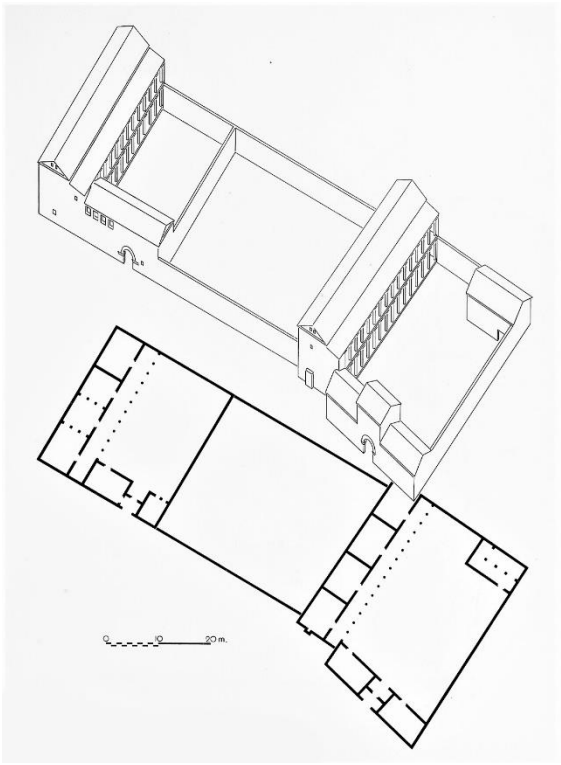


Figure 226 Plan and drawing of two large villas (4th-5th century CE) at Ruweiha, Syria (Tchalenko 1953b, plate VI).

The layout of the farms was similar to that of the villas, the main differences being the smaller size and the absence of outbuildings in the courtyard, which sometimes were equipped with storage space (see numbers 18, 21, and 24 in Figure 227). Many were smaller and simpler than villas (Tchalenko 1953a: 358). The workers' dwellings were of the simplest type, tightly packed with one another, often comprising a single room and what could be a shared courtyard or no courtyard at all (Figure 228). About their locations within the settlement's urban plan, the poorest houses were within the settlement, the villas and farms more on the edges and close to the churches (Tchalenko 1953a: 358).

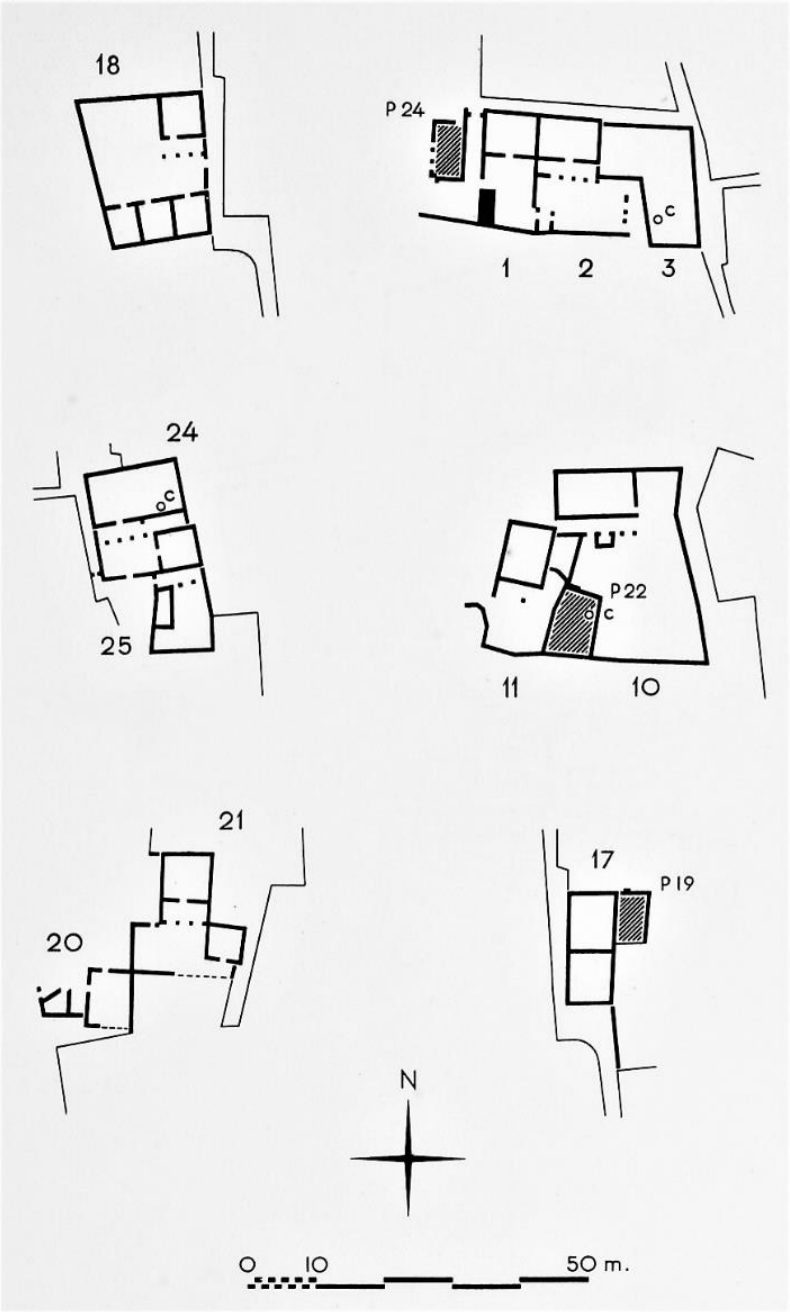


Figure 227 Examples of farm houses at Behyo (Syria) (Tchalenko 1953b, plate CXVI).

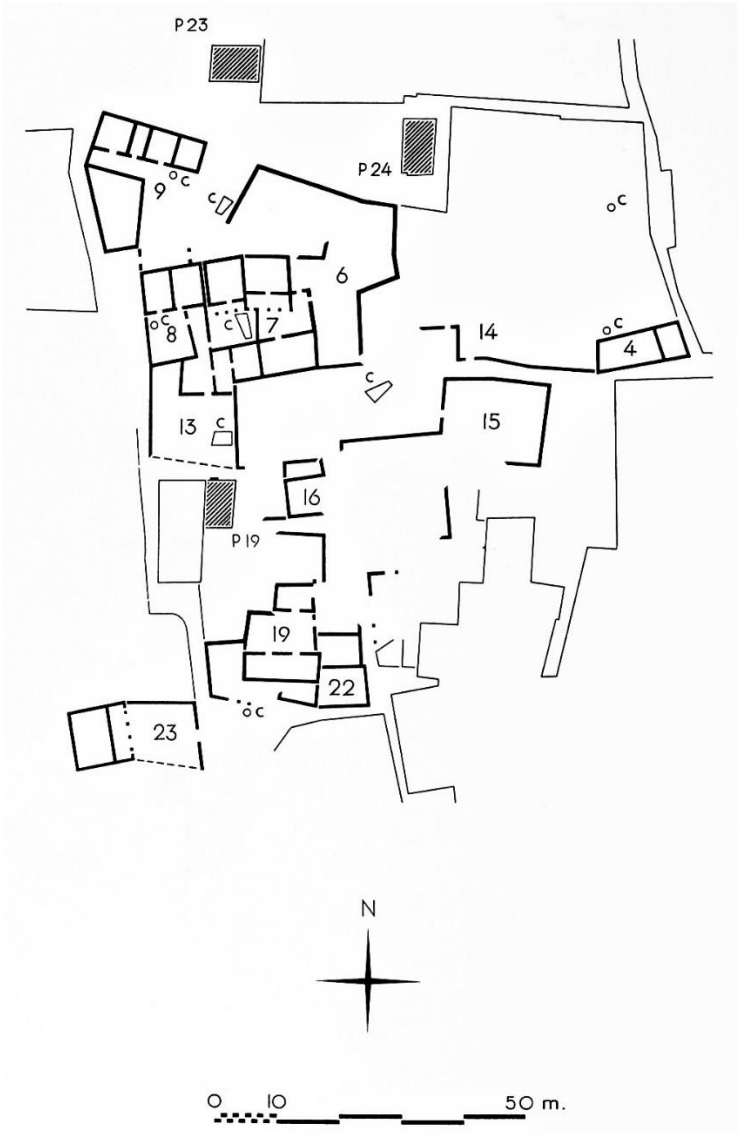


Figure 228 Examples of workers' dwellings at Behyo (Syria) (Tchalenko 1953b, plate CXVII). Houses 7 and 8 are also represented in Figure 225.

Several houses of type 1 (see Figure 225) were encountered at the site of Taqle, a modest peasant mountain village preliminarily dated to the 5th century CE[164] (Tchalenko 1953a: 202–03). All houses had a portico, supported by pillars and facing south. No decorative elements could be detected, and the houses were described as poor and of uncertain technique (Tchalenko 1953a: 201). Despite the later date, the houses employed the local building techniques of three centuries earlier that, on the contrary, are not visible in wealthier dwellings at other sites, nor in the church constructions (Tchalenko 1953a: 203–04), thus highlighting a continuity of the local building customs.

[164] The dating has been based on the local church remains, which dated back to the mid-5th century CE, as the houses' construction technique was deemed too simple to provide dating evidence. Based on the church dating, the investigators reckoned that the village could be only so slightly earlier in dating.

Regarding the status of the houses, Tchalenko suggested that the appearance of the dwelling might not necessarily represent the socioeconomic conditions of the inhabitants. Villa I (see Figure 229) at Qirqbīze is used as an example as it was a large, 3rd century CE[165] dwelling inhabited by two related families that shared the house and the dependencies (Tchalenko 1953a: 321, 325). Six villas at the site of Behyo, of different dimensions but all dating between the 5th and 6th century CE, all showed traces of remodelling and additional constructions; suggesting that the villas were inhabited during their last period of use by multiple, distinct families (Tchalenko 1953a: 353, 356).

Though the survey focused on studying the more prominent buildings and the villas rather than the modest houses, the investigations revealed that houses of all types showed signs of remodelling and expansion throughout their use. The smaller dwellings seemed to have been constantly rebuilt and remodelled (Tchalenko 1953a: 358). The mid-5th century CE Villa I at Behyo (see I in Figure 230) resulted from the merging of two separate dwellings, and the investigators could recognise at least four stages of successive remodelling and expansion (Tchalenko 1953a: 352, 357). Sodini and Tate (1984: 391–92) created a list of evolution types related to these houses' enlargement, division, and associations.[166]

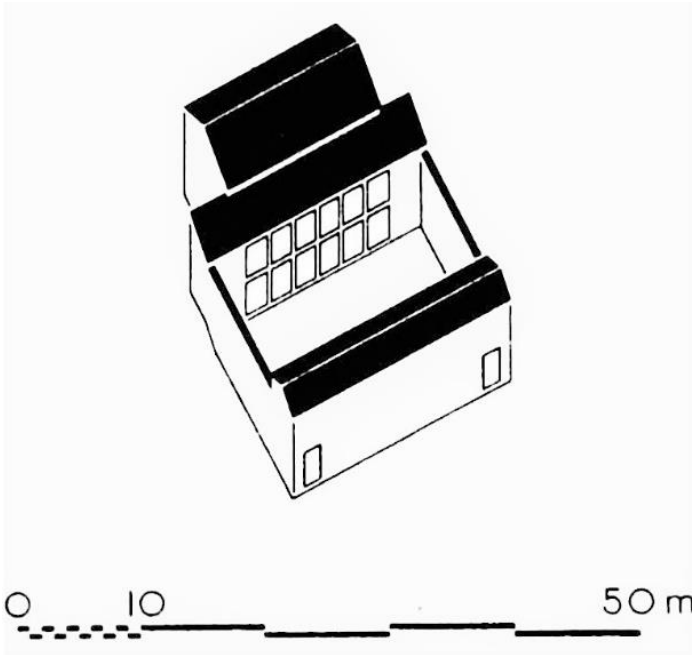


Figure 229 Drawing of Villa I at the site of Qirqbīze during the 4th century CE (after Tchalenko 1953b, plate CIII). The Main building, where the owners resided, was placed behind the portico and was smaller than the service area.

[165] Preliminary dating.

[166] 1) Enlargement; 2) division; 3) association (of a new house with a pre-existing one); 4) simultaneous expansion and division; 5) expansion followed by division; 6) division followed by expansion.

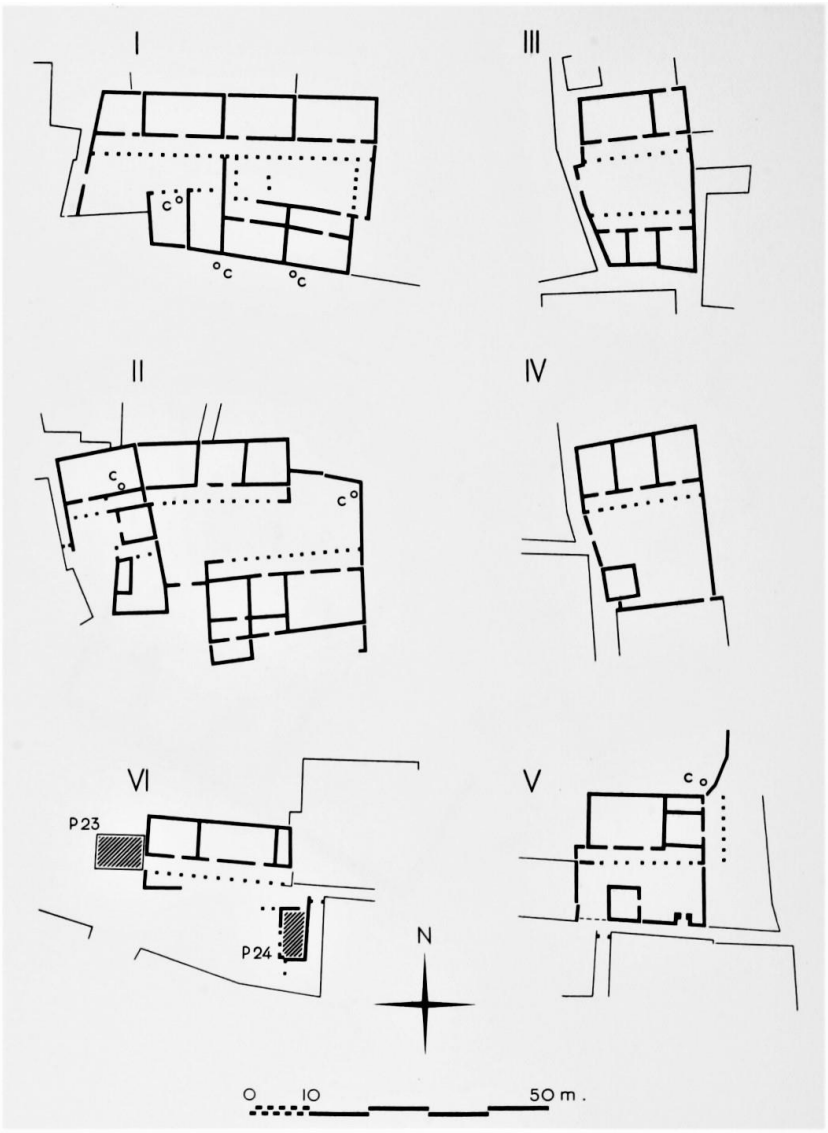


Figure 230 Examples of villas of different dimensions at Behyo (Syria) (Tchalenko 1953b, plate CXV).

5.3.5.2 – Syrian apartment houses

Butler and Prentice's (1903; 1919) surveys within Syrian villages also recorded a larger house type referred to by Ellis as the Syrian apartment house (Ellis 2000: 91–3). An example is a 5th-century house from the site of il Medjdel (Figure 231) in south Syria. The house, built in stone, also preserved its second storey. The ground floor's layout consisted of a large, square room and a narrower one placed at its rear, separated from the larger one by a low wall with basins surmounted by a transversal arch. Instead, the upper storey had been subdivided into four distinct spaces (Butler and Prentice 1919: 120–2). It has been proposed that the ground floor's use was that of a stable, whereas the living room would have been in the upper storey, over the workroom (Ellis 2000: 17, 91). The absence of doorways among the rooms of the upper storey and the presence of an external staircase suggests that the Medjdel house could have been an apartment house (Ellis 2000: 93).

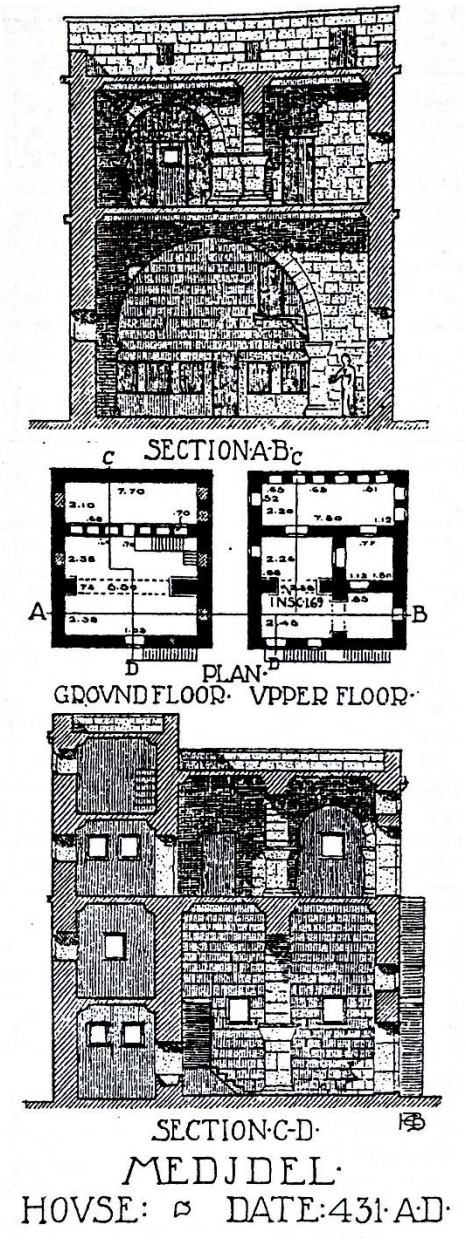


Figure 231 Plan and elevation of a house at il Medjdel (Syria) (Ellis 2000: 92, fig. 17).

5.3.5.3 – Cross-comparison with case study house

During the Late Roman period, Egyptian and Syrian vernacular architecture used different primary construction materials: mudbrick versus stone. Even so, they shared several similarities according to Ellis (2000: 97): the paucity of wood, which influenced architectural choices such as the room dimensions, and the use of more than one storey, which predisposed the internal house organisation towards a vertical rather than horizontal focus, and the fact that courtyards and central light wells were not employed much so that the rooms were not arranged around a court or central room. Sodini and

Tate (1984: 392) pointed out that the urban influence is noticeable in the decorative elements of the houses; this resonates with Davoli's observations on the Fayum houses, whose decorative elements were often the sole architectural expression of Greek and Roman influence (Davoli 1998: 354–55).

When comparing the case study house with the common house type recorded by Tchalenko's (Tchalenko 1953a) survey in the Limestone Massif and even by Butler and Prentice's (Butler, 1903; Butler and Prentice, 1919) survey throughout Syria, the differences are easily noted: the size would change radically in accordance to the means of the inhabitants and depending on the socioeconomic status of the Syrian village house. On the other hand, the layout always included the courtyard, except for the workers' dwellings, which either did not have it or shared an enclosed courtyard. Therefore, the house layouts shift from rectangular/square to irregular shapes, though the living quarters are usually elongated with a rectangular layout. The portico was also a common architectural feature, regardless of the building's wealth. The apartment house, though exhibiting at first glance more affinity with the case study house, has particular characteristics of its own, such as the use of transversal arches, typical of Syrian houses, the large ground floor room, and the staircase leading to the upper storey being placed outside the house (Depraetere 2005: 69).

Ultimately, both Egypt and Syria maintained strong vernacular customs; Ellis (2000: 17, 96, 97) had remarked that these customs drew on links to Hellenistic or Semitic practices whilst highlighting that there does not seem to be a direct connection between the village housing customs of the two countries. Depraetere (2005: 69–70) excluded the possibility that the Egyptian house plan types had originated from Syrian influences. The presence of the second storey in both the village houses and the apartment houses recalls the multi-storey organisation of the Egyptian house. Indeed, Ellis emphasised that the vertical orientation was not characteristic of Roman buildings, mentioning the horizontal orientation of houses in Ostia and Rome (Ellis 2000: 93), thus alluding to the persistence of local building practices. Nevertheless, it should be noted that, among the surveyed buildings, Butler and Prentice (1919: 190–3) had recorded evidence of peristyle houses (for instance, at least two peristyle houses were registered at Dar Kita, in southern Syria), thus providing evidence of contact between the local and Roman vernacular conventions.[167] The diffusion of more Roman-style houses could depend on socioeconomic means, but it is not necessarily a rule of thumb as the village houses showed a high level of craftmanship, technical skill, and even wealth attesting to the "local economic prosperity in late antiquity" (Ellis 2000: 93). It can also mean that affluent inhabitants or members of the elite did not necessarily have to adopt a Roman lifestyle, or in this case opt for a dwelling that adhered to the Roman architectural style, just because they could potentially afford it.

Therefore, the comparison underlines some similarities between the housing features and organisation but ultimately shows that the closest affinity lies in the fact that local building principles continued to be used and developed in both countries.

[167] See Sartre, 2007 for a brief overview on Roman houses in Syria.

5.4 – Considerations

In light of the analysis and comparisons with the case study house, it is possible to formulate some considerations regarding the degree of local and 'Roman' input within the houses' form and use. The presented cases denote diversity in form, building materials, layout and decorative elements. There are similarities at times, dependant mainly on the environment and the available building material, with stone being widely used outside Egypt and the indigenous building practices, as well as similarities in the way the inhabitants lived in the houses, such as the modifications applied to the original layout and the flexible use of space. Affinities, whether resulting from independent developments or merely coincidental, are expected as they represent how domestic contexts were organised within the Mediterranean environment (Tang 2005: 175). The results of the analysis are summarised in Figure 232.

Case	Date	House Form	Materials	Decorations	Amenities	Multi-storey	No. of Rooms	Modifications	Location in settlement	Activities other than domestic?	footprint (m2)	Architectural style
Late Roman house (Kom al-Ahmer, Egypt)	late 4th century to c. 450 CE	square	mudbrick	painted plaster on walls	/	yes	3 (ground floor)	yes	west	small-scale glass and bone workshops	90	local
Earthquake house (Kourion, Cyprus)	1/2nd century to mid-4th century CE	irregular	stone foundations and mudbrick walls	no	/	yes	8 (ground floor)	yes	south-centre	storage	397	local
Patrician house (Meiron, Palestine)	early 4th century to 360 CE	irregular	stone	no	/	yes	5 (ground floor)	yes	south-centre	unspecified work activities	80	local
Lintel house (Meiron, Palestine)	mid-3rd to mid-4th century CE	not fully excavated	stone	"striking" lintel entrance	/	yes	2 (temporary)	n/a	south-centre	shop and possibly unspecified work	n/a	local
House 2, Theodosian Wall (Carthage, Tunisia)	late-4th to the mid-5th centuries CE	rectangular	stone	mosaic floors	peristyle, cistern and access to drainage system	not specified	12 (ground floor)	yes	north	manufacture, construction, or artisanal work	180	some Roman influences
House 1 (Theodosian Wall, Carthage, Tunisia)	4th century CE	rectangular	stone	mosaic floors	/	not specified	6 (temporary)	yes	north	no	n/a	some Roman influences
Building 1 (Avenue Habib Bourguiba, Carthage, Tunisia)	2nd century - mid-5th century CE	rectangular	mortar rubble	mosaic and *opus signinum* floor	two underground cisterns	possibly	unclear	yes	south edge	stable, farming activities	630 (temporary)	some Roman influences
Structure E (Aila, Aqaba, Jordan)	2nd-3rd centuries to late 3rd century CE	not fully excavated	mudbrick, some stone foundtions	no	/	not specified	unclear	yes	north	terracotta industry and doemstic textile production	n/a	local with Egyptian influences
Limestone Massif, north-central Syria	1st century to the 6th century CE	rectangular, irregular	stone	not for more modest houses	tile roofs, portico, few instances of peristyle	some	varied	yes	centre (poorest houses), edges (wealthier houses)	utilitarian dependencies, storage	n/a	local (though some cases exhibtied some Roman influence, i.e. use of peristyle)
Apartment houses (il Medjdel, Syria)	5th century CE	square	stone	unspecified	stone basins	yes	1 large room (ground floor), 4 smaller rooms (upper storey)	unspecified	unspecified	stables, workroom	varying sizes	local

Figure 232 This table summarises the results of the cross-comparison analysis: the list of sites and localities is provided in the first column; the periods of use are listed in the second column, whereas the other columns specify characteristics that could be cross-compared among the selected examples.

We can draw some considerations from Figure 232. The house shape and size varied throughout and within the regions, implying that size is not an indicator of status. Stone was the most widespread building material used in almost all the case studies; this contrasted with the Egyptian case, where stone was less frequently used for vernacular buildings. The number of ground floor rooms varied, and not all the houses were multi-storeyed. Decorations such as mosaic floors seem to have been a prerogative of the Carthage houses, whereas walls coated in painted plaster do not seem common. The location of said houses within the respective settlements was also different. Remarkably, roof tiles, a distinguishably Roman feature, were mentioned solely with some Limestone Massif houses. Egyptian houses had a long-standing custom in which the roof was used as an additional storey, either for activities or for storage. Though the Delta would experience a fair amount of seasonal rain (see *Section 2.2 – A wetland environment between the coast and the desert*), the idea of finishing the roof with tiles would have clashed with the functionality of the roof, which was not solely an architectural feature but also a space available to the household.

Concerning resemblances, almost all the houses underwent modifications throughout their use, either applied by the original inhabitants or by the secondary ones in the cases where houses were re-utilised by other households. Often these modifications were related to the usage of some of the ground floor spaces, which showcased a variety of extra-domestic activities that would take place within the house: storage, work activities related to small-scale manufacture, frequently crafts, as well as farming and stabling. All houses expressed to varying extents the local architectural style. Those that exhibited a measure of Roman influence were usually houses linked with the elite; often, these differences were expressed in the decorations (e.g., mosaic floors) and eventual amenities (peristyle court); in the case of the houses in Carthage, the peristyle was not wholly representative of Roman influence as it had been introduced in the area long before the Roman annexation (Rossiter 2006: 370).

Overall, the analysis showed how the Roman Empire encompassed various styles, ideas, and characteristics. This range of possibilities renders it challenging to create typologies, though one wonders whether it should be done or not, especially since the differences and details convey each community's cultural and technical ingenuity.

On the subject of the evolution of the tower house form, it is interesting to point out that Ellis' theory on the development of the multi-storey Syrian apartment house argues that it was not triggered by a determinant such as population growth and the need for space but that it had progressed from rural, rather than urban, tradition (Ellis 2000: 93). This thinking seems to be based on the fact that the ground floor of Syrian apartment houses (see *Section 5.3.5.2 – Syrian apartment houses*) seem to have been devoted to working activities and stabling; the living room was located on the upper storey, together with other rooms. This type of internal organisation recalls the vertical zoning of Egyptian tower houses, by which the private areas would be on the upper storeys, thus accessible primarily by the inhabitants. Given the importance of agricultural work in Egypt, it is appealing to consider Ellis' theory and whether

it could apply to the development of Egyptian tower houses, which were often located in settlements that would have been surrounded by cultivable fields and would have been inhabited by people involved in the rural economy, either working in the fields or managing that work. It could be a possibility to add to the number of factors concerning the development of this house form in Egypt.

It is imperative to state again that archaeological evidence for houses is currently biased towards elite housing, with more excavated and published examples than non-elite housing; for now, this remains a problem for the interpretation of non-elite housing as there will be lesser evidence to cross-compare, as seen in the data presented in this chapter against that of the Kom al-Ahmer house. This issue becomes even more problematic when addressing an interregional analysis of house forms during the Roman period, as it will inevitably involve distinct preconceptions and ideas formulated so far on what could constitute non-elite and elite housing. An example is prompted by Wallace-Hadrill when comparing the understanding of what a domus was in Rome versus what a domus was in Pompeii;[168] the cases of the Patrician house at Meiron and the non-elite houses in peripheral Carthage suggest that the variables that determine how modest or wealthy was a house, are multiple and possibly also dependant on the researchers. An example from Late Roman Egypt could be Grossmann's assertion that houses of middle and lower status could mostly be found in countryside villages and smaller settlements (Grossmann 2007: 130), which seems to imply that they could not be found in cities, although without mentioning the preservation variables or extent of excavation work. Even Pensabene and Gasparini (2019: 176) referred, with what seems to be a note of prejudice, to the houses in the Fayum villages as simple and thus inhabited by people of the low social status, contrasting them with elegant houses with more than one courtyard.[169] Instead, studies such as Rossetti's (2019) demonstrate that Bakchias was one of the largest and most important settlements of the Fayum, with several monumental buildings, facilities, and public spaces (Rossetti 2019: 224), in contrast to Grenfell, Hunt, and Hogarth (1900: 40), who described it as a small village of mudbrick houses.

On the other hand, concerning houses and farms of the 2nd-5th centuries CE located within 40 km of Antioch, De Giorgi (2015: 257) commented that even though the comforts and decorations found within them were usually typical of aristocratic villas, mosaics would have been considered 'an essential component in shaping the domestic environment of any size' and were not necessarily exclusive to wealthy individuals. Furthermore, it is implied that these architectural choices could have depended on groups that valued aesthetics. These observations reflect the variables related to socioeconomic conditions in proximity to a prominent city and could be linked to the rural versus urban debate; however, affluent individuals and families, or simply well-off people, were not a prerogative exclusive

[168] 'What makes a Roman house a house? […] the domus is a particular kind of domestic structure, opposed to the apartment blocks or insulae which actually hosted the vast majority of the population. What makes a domus a domus is that it is an elite residence, typically inhabited by one family. But even if this was true of Rome and Ostia, that definition will not work for Pompeii and Herculaneum, where it is apparent that the large domus might be inhabited by several families, and of far from elite status (judging by their documents)' (Wallace-Hadrill, 2015, p. 185).

[169] At Philadelphia, Medinet Ghoran, and Medinet Maadi.

to cities.[170] Nevertheless, the point here is that I was sceptical about including the house examples used by De Giorgi's in this cross-comparison exercise because the houses presented are very big, finely decorated, and elaborate. Though De Giorgi was referring specifically to the houses and farms in the hinterland near Antioch, I was not convinced that decorative elements such as mosaics could become essential components in non-elite housing. Decorations can be functional fixtures, but their complexity and exclusivity are dependent on personal design preferences, fashions, and economic possibilities. A mosaic floor will serve the same purpose as a beaten earth floor but will be more expensive to craft and maintain. Thus, there is the risk of bias inherent to housing status concepts throughout the multicultural Roman empire. Elite dwellings would not have come cheap, and costs would have reduced the number of people who could have afforded houses with amenities (Yegül and Favro 2019: 262–63).

The above considerations lead to another concern regarding the label of Roman housing: to be *domus* or not to be *domus*? It seems to have been an overall accepted idea that something becomes automatically Roman following its incorporation into the Roman empire. This idea is tied to acknowledging the multiculturality of the empire embraced within the geographical boundaries set during its time. In addition, it would not be possible to claim that it was a multicultural society if its identity had not developed throughout time (Wallace-Hadrill 2015: 177). The loaded paradigm of 'Romanisation' has been contested and re-evaluated in favour of the recognition of the local inputs as well as the individual agency (Gardner 2013; see Haeussler and Webster 2020 for a discussion on creolage; Millett 1990). Since the focus on elite houses, which often follow or adopt part of the Roman architectural style, has driven the discussion on domestic buildings, less attention has been paid to whether the houses maintaining strong ties with the indigenous practices should or should not be labelled with Latin terms.

This deliberation does not propose something new; it supports the assertions that local building practices continued to be utilised. The population of the Late Roman empire was culturally and socially diverse, and such multiculturality would be expressed, if spontaneously or involuntarily, and at varying degrees, in domestic architecture. The idea that the Roman culture would not have been the one native to Rome but the blend of trends and influences from different parts of the empire is an accepted concept (Brendel 1979).

Essentially, it is not surprising to observe unconformity in domestic architecture; instead, it is fitting that private buildings, in contrast to public ones, either funded or promoted by the administration, would reflect the indigenous customs. It is also fitting to see a variety of house forms within the same community, thus expressing the manifold intentions and means of the community members; hence, some people chose to commission and live in houses that followed Roman architectural guidelines. The concept of creolage integrates the notions of regional and local diversity within one community

[170] 'In Roman Egypt, as elsewhere in the ancient world, the city was home to at least some of the elite' (Alston and Alston 1997: 209).

(Haeussler and Webster 2020: 17). Evidence for this can be seen reflected in the Romano-African houses of Tunisia expressing Punic influence (Carucci 2006a; Daniels 1995), but this trend can also go in the other direction, with decorative elements[171] belonging to Greek and Roman customs appearing in many of the houses of the Fayum settlements in Egypt, while the domestic buildings' architectural style and construction techniques remained Egyptian (Davoli 1998: 355–56). Roman period domestic architecture at Nabataean sites on the Red Sea coast underwent Egyptian influence (Retzleff 2003: 54–55, 62), and Syro-Palestinian domestic architecture kept on adhering to the local building practices (Meyers 2007: 123). At the same time, Roman-style houses, more often than not elite housing, were detected across the Roman empire's boundaries, in some regions more than in others.[172]

The reasons behind the choice and degree to which foreign influences are adopted lead to contemplating the processes of tradition, continuation, innovation, and change. While the local architecture was maintained amidst the introduction of and possibility to adopt foreign styles and techniques, it does not mean that it 'stood still' and that there was no development. What is deemed as conventional (from architecture, objects, practices, and cultural customs) had to be introduced first before becoming grounded within its socio-cultural context, and there is no guarantee that it will be or remain representative, either in the long or short term, of a distinct community or region. It would be inappropriate to assume that domestic architecture in Egypt and the Eastern Mediterranean would not have been influenced by the trends coming into the country and that it would have stayed fixed in time since indigenous domestic architecture is also a product of a constant progression. The houses of Late Roman Egypt result from the long-standing development of domestic architecture in Egypt —as seen in *5.2 – Overview of the development of house form in Egypt*— and the socio-cultural developments that occurred after the annexation of Egypt to the Roman empire.[173] Furthermore, though not entirely limiting, the environmental factor also posed variables regarding what could suit the living conditions adequately (Huebner 2016: 157–58).

While the annexation of Egypt to the Roman empire was bound to have consequences, it does not necessarily imply a sharp divide between choices of continuity and change. Instead, it is possible to observe nuances dictated by communal and individual agencies, permeated by factors involving representation, economic means, occupation, social status, environmental availabilities, and daily requirements, to name a few. In the case of Egypt, Alston (1997: 39) proposed that the reason why less wealthy Egyptians could not adopt more 'Romanised' house types was because they were poor and could not afford the expenses; on the other hand, Ellis (2000: 97) disagreed with this statement by

[171] For instance, capitals, columns, and cornices.

[172] Peristyle houses and palaces with Graeco-Roman influence in Palestine have been recorded at Jericho, Sepphoris, Tel Anafa, Samaria, Tel Judeiah, Khirbet el-Murag, Aphek, and Jerusalem, but Meyers clarifies that there was limited presence of this type of house in that area, which could mean that not many individuals adopted or followed this type of influence (Meyers, 2007, pp. 114–15).

[173] It has been suggested that the term Romanised may be more appropriate than Roman when referring to the adoption of Roman style (Millett 1990: 1).

asserting that the materials, skills, and techniques to build such houses were available, especially in the Delta. Ellis' opinion would seem to concede more relevancy to individual agency, which may have related to the inhabitants preferring mudbrick to other building materials due to its qualities; however, Ellis then moved towards a view that regards houses built during the Roman period as 'Roman in date and provincial Roman in culture' regardless of the form and characteristics.

This chapter's house comparisons aimed to highlight the diversity in non-elite domestic buildings within some regions of the Eastern Mediterranean and North Africa. It is fair to say that the Roman empire's multicultural character is also mirrored in domestic architecture. Concerning the case study house and broadly Egyptian housing of the Late Roman period, the cross-comparison highlighted the Egyptian character of the non-elite buildings, which retained an adhesion to the local building principles, techniques, and style despite the Hellenistic and Roman influences, much more evident in the peristyle aristocratic residences (Lancaster and Ulrich 2013: 199; Uytterhoeven 2007: 89). Other studies have reached similar conclusions: Depraetere's thesis (2005: 505) concluded that the Karanis townhouse plans derived from the New Kingdom townhouses; Huebner (2016: 170) agreed that most houses in the Roman period were of an indigenous Egyptian type, except for those belonging or inhabited by the wealthier members of society, while also arguing that the latter seemed to follow Greek architectural models rather than Roman ones. This consideration also applies to the sample of non-elite houses assessed in the cross-comparison, thus denoting a widespread set of practices within the Roman empire.

The overview of the development of Egyptian housing from the Neolithic to the Late Roman period and the cross-comparison of selected Late Roman non-elite houses from Cyprus, Palestine, Tunisia, Jordan, and Syria with the case study house allows us to perceive how the identity of the Egyptian house, at least concerning its basic architectural layout, was developed and how it progressed. As with any matter related to identity and culture, house form was in constant evolution, stimulated both by factors internal and external to the society that produced them. I have attempted to avoid using the word 'traditional' when describing local building techniques and styles as the term tradition is often interpreted as something fixed and unchangeable. Nevertheless, tradition needs to be originated before it can exist (Hobsbawm and Ranger 2012), and what is nowadays considered traditional is an evolution of a previous version, which in turn is another development of an earlier version, and so on. These evolutions are permeated by the subjectivity of the social agents, in this case, the people who learned, perceived, reconsidered, and passed on their acquired building knowledge, either enhanced by their own experience or maintained in time. The identity of a sociocultural product, such as vernacular architecture, is flexible and even contaminable. The fact that Egyptian domestic architecture included the indigenous building practices and adopting architectural conventions set by a foreign, more dominant, though seemingly inclusive, cultural influence is further evidence of the heterogeneous character of a globalised reality and mirrors a complex and multifaceted society.

I reckon it is apt to end this chapter with this quote: ‘tradition is just another word for inertia’ (R. Dickinson 2016, personal communication, October 19).

Chapter 6 – Conclusions

No verdict can possibly be final: the meaning of a past event can always be reversed.
Simone de Beauvoir (1972: 366), The Coming of Age

This thesis has tackled the topic of domestic contexts of Late Roman Egypt through the excavation and study of a case study house, a 5th century CE dwelling of the Kom al-Ahmer site in the modern region of Beheira (Western Nile Delta), part of which was known as the Metelite *nome* in the Late Roman period. The use of a single house as the basis for this specific thesis was prompted for several reasons. Though the excavation unit was expanded to encompass some of the nearby buildings, the case study house has been the only investigated Late Roman building at Kom al-Ahmer to be recognised as having a domestic function. Archaeologists working on domestic contexts frequently reiterate the need for more excavation, and the work of the Kom al-Ahmer – Kom Wasit Archaeological Project offered the opportunity to examine a house that had never been investigated before. The first-hand excavation of the house allowed for direct access to the data and an experienced understanding of the context. Through this research, this case study house contributes to the *corpus* of investigated houses in Egypt, and it supplies evidence for a region underrepresented in studies of houses from the same period.

The initial intent behind the excavation of the Kom al-Ahmer house was to understand the Late Roman layers on the western part of Kom al-Ahmer, an area that had previously only been superficially investigated. The unearthing of a fraction of the site's western residential sector with the house, the amphorae storage building, and the nearby structures allowed the researchers to open a window into an urban reality of the Delta during the Late Roman period, to obtain a picture of daily life, whilst maintaining awareness that this is a glimpse, a nuance of how people were carrying on their lives. There were some expectations with regards to how this research could have progressed, and they were mostly linked to Egypt's reputation for preservation (I was once asked 'presumably it [the case study house] has wonderful preservation of finds?' and 'I imagine the preservation at your site might be exceptional - how does your site offer something special?'). Instead, the exposed contexts revealed a situation of abandonment, with residual artefact dispersion, the house remains stripped almost to the foundations, with very few organic remains and no written evidence. Initial questions aimed at contextualising the inhabitants' identity and extrapolating the internal organisation of the house became increasingly difficult to address. As such, it was necessary to reassess the dataset and frame the research questions based upon the existing remains. It was realised that it was not feasible to ask this dataset the same questions that could be asked from another dataset and that the approach should be flexible. This

reasoning does not intend to remove objectivity from the research framework but rather proposes a nuanced approach that allows making the most of the extracted data.

Therefore, the thesis was directed toward establishing how much could be discerned from the archaeological excavation and the kind of post-excavation analyses that could be performed in accordance with the work carried out by the archaeological mission currently investigating Kom al-Ahmer (see Kenawi 2019b; and Asolati, Crisafulli and Mondin 2019). Secondly, attention was devoted to the foundations of the house, as they were the only surviving architectural element (except for the outside additions); inferring the construction of the foundations led to reviewing the relationship between the environment and the building, which in this case is of particular interest due to the Delta's geomorphology as it is a floodplain that used to flood annually, thus subjecting the locals to interact with fluctuating water levels seasonally. Thirdly, the geographical location was not solely explored in environmental terms but also with regards to cultural influences as Delta sites were closer to the Mediterranean Sea and possibly more reachable and/or responsive to foreign trends, particularly since the house's dating to the Late Roman period positioned it in a chronological frame in which Egypt had long become involved with the Roman empire and opened to the movement of people, goods, and ideas. The focus remained on the architecture of the house, specifically its form.

The following sections will summarise each research question, the approach undertaken, and the results that were reached, respectively.

6.1 - How much can we discern archaeologically about the way in which this house was constructed and inhabited?

This research question was addressed in Chapter 3 – The case study house and Chapter 4 – Beyond the excavation: analysing architecture and usage. The former concentrated on identifying the contexts — from buildings to spaces and installations— and the results of the architectural survey; the latter was devoted to the interpretation of the contexts with the material culture.

Architecture

The case study house is not a well-preserved context; however, archaeologists deal with data limitations regularly and have to make do with the surviving remains. Consequently, the excavation focused on the building foundations.

The Late Roman house retains most of the characteristics of Egyptian housing of its time and denotes its links to the building style of tower houses that had been begun to be used in the Third

Intermediate and became more widespread in the Late Dynastic and Hellenistic periods and that continued into the Roman period (Marouard 2012: 126; Spencer 2014b: 172, 174). The architectural principles are the same, though the dimensions decrease, from the plan to the brick, and in some cases, the plan varies from square to rectangular or L-shaped (Marouard 2014: 116–117). Marouard did not regard the multi-storey houses of the Roman period as tower houses, alleging that the Greek term *pyrgos* (tower; see Husson 1983: 248–251) was too generic. Nevertheless, the Roman period houses share ties with their predecessors and emphasise an evolution of the building tradition, which most likely adapted to different circumstances (Depraetere 2005: 169–172). The concept of continuity may have been conscious within the builders and inhabitants, but there is the possibility that it may have been a more pragmatic attitude rather than being a deliberate symbolic and insular connection to the past. As tackled in *Section 4.2 – Architectural survey*, the builders had to be aware of the active and fluctuating environment of the Delta; as such, effective building techniques would have ideally been favoured.

It was not possible to understand the internal organisation of the house aside from identifying that the basement and ground floor had been subdivided into three rooms and that a corner had been reserved for a staircase. Hence, analyses on access and space syntax could not be applied. Nevertheless, the architectural survey led to the detection of four subphases of the house's life —which has been referred to as main phase— the alterations applied by the house inhabitants during their occupation. These modifications —represented by the addition of small architectural features and rooms, installations like hearths and kilns— have been interpreted as direct results of the inhabitants' agency, expressed by fashioning their immediate surroundings according to their necessities, as opposed to the original product that the builders had delivered. These changes possibly testify to new arrangements and patterns in the household's life (Plimpton and Hassan 1987: 447). The stratigraphic excavation permitted to identify and differentiate between several contexts within the limits of the excavation unit, some of which co-existed while others were either earlier, later, or were in use for a limited amount of time compared to that of the house.

Tentative 3D reconstructions were designed to visually express the development of the house through time and how these contexts interacted. This development was subdivided into the four subphases that could be detected. The house has been estimated to have lasted for 60-70 years according to the datable materials and the likely lifespan of a mudbrick house (see *Section 3.2 – Reconstruction of the phases of use of the house*). It cannot be inferred how long the subphases temporally lasted, but we can theoretically approach them to consider what they had represented. Given that the subphases embody actions and choices of the household, ranging from additions to abandonment, they may correspond to adjustments closely related to the house, such as generational changes or a new household —or new household members— establishing themselves in the accommodation. For instance, it has been noted that painted plaster fragments in the house began to be retrieved from deposits below the possible 'coin floor' and that this coincided with decrease in the number of coins. This detail prompts

the possibility that the painted plaster fragments may have related to the occupation that concerned the basement rooms (*Subphase 1*) and that the 'coin floor' —which was associated to the workshops of *Subphase 4*— may also represent a different occupation of the house, possibly by a household with a different socioeconomic situation than the previous one (see Appendix to Chapters 3 and 4, Artefacts). It is also possible that the shift from a subphase to the next might reflect wider political or local changes affecting the residential sector or the whole settlement. These are suppositions that will be hard to test, but they indicate the kind of data that the excavation of one house can reveal: glimpses of an active and dynamic lifestyle symbolically[174] bordered by house walls and characterised by human choice, individuality, community flexibility. Since this kind of data can be extrapolated from one house, if more houses of the same residential sector and chronological period were similarly investigated then a broader understanding of a settlement's development and its reflection of the times in which it lived would potentially be attainable.

Use

Having addressed the house's architecture, it was pivotal to connect it with its inhabitants, to understand how it functioned and how it resonated with their lifestyle. The material culture assemblage was considered and correlated with the house's architectural *subphases*. The meticulous registration of finds and their findspots, even in abandoned contexts, demonstrated that it can supply helpful information that could have otherwise been overlooked. The coin dispersal detected within two rooms of the house alluded to the transactions undertaken in the building and was also evidence of a floor level that was not identified during the excavation.

Overall, what could be inferred of the everyday life of this early to mid-5th century household regarded their work activities. These activities mirrored their socio-economic situation as a household, which was non-elite and involved in small-scale craft manufacture of recycled glass and worked bone in domestic workshops located in the courtyard behind the house. Money transactions were undertaken majorly, but not exclusively, behind closed doors. They have been related to their business undertakings: the room facing the streets has been suggested to have had a retail function possibly. Nevertheless, the extent of the evidence does not allow to say what was being traded explicitly —if the produced craft-goods or else, something that is not preserved in the archaeological material. There are no elements that allow us to say if any of the household members were involved in the agricultural economy, in whatever capacity, despite the location of the settlement well within the Delta countryside;

[174] I opted for this term because this investigation has delved much on how house archaeology are not restricted inside the walls of a house but prominently expand outside.

however, the area was used for butchering activities (Bertini 2019: 327–28), arguably in relation with a nearby animal pen, an activity that conforms with the domestic needs and the worked bone workshop.

This is what could be grasped of the household's situation. What does it say about the Egyptian people living during the first half of the 5th century CE? It is possible to infer that the society populating the settlement —which possibly hosted the *nome* capital Metelis at that time— consumed goods of glass and bone, ranging from containers to objects of personal use to jewellery. Given the small-scale of the workshop, it can be suggested that the production may have been intended to be local, a household economy serving the neighbourhood, perhaps even an activity undertaken seasonally during the inundation period. By that period, glass had long evolved from a luxury good to a mass commodity (Larson 2016: 374). The fact that the glass would be recycled and that the resources for bone objects were readily available indicates that this kind of business did not necessitate much economic expenditure and primarily relied on the experience and expertise of the artisans. Additionally, the use of recycled glass suggests that the prices, both for the acquirement of the materials and then the sale of the products, may not have equalled those of glass produced from raw materials. The same may be applied to worked bone objects produced with bones of local farm animals instead of ivory. The manufactured goods of this domestic workshop may have been intended for consumption by clients looking for affordable goods attainable locally. The placement of shops and workshops in locations easily accessible by customers can attract clientele as the travel time and costs would be considerably reduced (Goodman 2016: 308–09). Thus, the inhabitants of the Late Roman residential sector would have had access to goods without the need to invert additional money on travel expenses and travel time.

The above reasoning resonates with the discussions on the economy of Late Antiquity, which recently claimed that artisanal activity and profit-oriented business were carried out in all urban centres as opposed to the consumer city *vs* producer city concept (Bandow 2015: 20–1). In Egypt, except for the textile and papyrus industry, it has been suggested that most industries provided for the local population (Bagnall 1993: 85, 2005b: 198–99): manufacturers in the metropoleis and towns would have supplied the villages where specific workshops may have not existed (Bagnall 1993: 315). Most of the population was involved in the money economy, an acute change from the Pharaonic economy based on exchange and barter (Bagnall 2005b: 199; Rathbone 2002: 162). As reviewed in *Section 4.2.4 – Floors*, the readable coin specimens have revealed that they originated from a number of mints; the eastern mints predominated, but there were examples from western mints, and some from Alexandria. These samples testify to the penetration of coin circulation into the countryside through the Mediterranean trade network, which highlight the involvement that countryside sites such as Kom al-Ahmer had in the movement of coins and goods during that period.

The evidence from the house indicates a household participating in the production of local goods. The nearby amphorae storage building —most likely involved in selling amphorae and/or their

contents— was another business endeavour in the residential sector. What is more, the business of the amphorae storage denotes an approach mindful of the reuse of material that could potentially insinuate canny tactics, an eye on future requirements, or a response to consumer demands. Continuing the excavations in that area of Kom al-Ahmer would allow obtaining more information regarding the range of businesses available to the Late Roman inhabitants. Concerning other pottery, such as tableware, it would also be useful to review the evidence from the house to elaborate on the household's diet and eating habits and assess to what extent they express commonalities locally and with the rest of the empire.

Urban layout

What could be detected, either with excavation or non-invasive survey, of the urban layout of the Late Roman sector is a regular, orthogonal network of perpendicular streets and building blocks. The fact that the case study house's inhabitants were tailoring their immediate surroundings by adding, removing, and then implementing structural additions allows us to appreciate the vitality, resourcefulness, and agency of these individuals over the spaces where they carried out their daily lives. In addition, it also denotes how the population of the residential sector was privately appropriating public or shared spaces. Though these were small-scale appropriations, they evoke elements of the transition from the Classical to the Medieval period city, by which the regular layout evolved into a less-regular network of small streets characterised by a higher density of constructions (see Davoli 2019: 77–79 on Amheida; see Simpson 2014: 276–77 on Karanis; see Wilfong 2002: 8 on Djeme). It may be premature to advance a statement about this transition as long-term and extensive excavations of Egyptian settlements are still too few to attain a generalised explanation (and if it is possible to attain one or not). Studies like Gascoigne's (2002) on the transition of the settlement of Edfu (Upper Egypt) from the Pharaonic tradition to the Islamic one provide insight into the mechanics behind this process. The western part of Kom al-Ahmer, where the Late Roman sector is located, lacks the Islamic layers; this inhibits seeing how the sector transitioned from the 5th century onwards. Nonetheless, the snapshot offered by the excavation of the Late Roman house testifies to the local people's perception of public and shared. The excavation of more houses in the neighbourhood would be vital in understanding how common this phenomenon was.

I have discussed the likelihood that the goods produced in the workshops of the case study house had been intended for local consumption; however, it may be worthwhile to tie this consideration with the evidence uncovered so far at the site. Until now, the house, the amphorae storage building, and the Roman bathhouse are the only buildings whose use dates back to the Late Roman period that have been investigated at Kom al-Ahmer. The impressive dimensions of the bathhouse have led researchers

to argue over the settlement's function and status (Eller and Kenawi 2019: 4). In *Section 4.3.2 – WFH (work from home): small scale workshops*, the possibility that the bathhouse may have functioned as a catalyst for business activities has been discussed. This possibility entices questions on the relationship the establishment had with the residential sector to which the case study house pertains, whether the latter may have surged in response to the public urban developments occurring in the more central part of the settlement. It must also be noted that the western residential sector would have had access to the river canal identified by Pennington immediately west of the site (see Figure 27), and that a harbour or jetty would have probably been there too. As such, this residential sector would have been in close proximity to transport links, through which goods and materials would have been moved, and services to the population; both instances include an affluency of people on a daily basis, which becomes advantageous for business. The excavation of the Roman Room (see *Section 3.3.4.2 – The context below Room C*) revealed a glimpse of the Roman occupation at the site (1st-2nd centuries CE); the apparent absence of 3rd century constructions in the sondage within the house may denote that the suburb expanded in the 4th century CE. A similar lack of structures was noted in the sebakheen pit (see *Section 3.3.13 – The 'hole' – the sebakheen pit*) and the excavations at Kom al-Ahmer have identified a Ptolemaic residential district more towards the central part of the site. Overall, how the western Late Roman suburb developed remains a suggestion based on the data gathered so far, but it emphasises the possibilities offered by the investigation of the house.

Religion

As seen in *Section 4.3.3 – Traces of belief, cult, and religion*, the work activities are predominant in the material culture associated with the ground floor; however, this arrangement seems to be per the architecture of the tower house, which created a vertical zoning alternating 'public' (below) and 'private' (above) (Arnold 2003b: 176; Grossmann 2007: 131; Keenan 2007: 231). This dichotomy in archaeological contexts of the Roman period has been regarded as hazardous: the two concepts do not necessarily exclude each other (Cribiore 2015: 149, 159; Hilder 2015: 161), and they were perceived differently in the past from how they can be perceived nowadays (Carucci 2006b: 297–99). Taking care when interpreting contexts in relation to these concepts ties with the notion of flexible use of space by which the house's spaces could be arranged and used in different modalities pending on the daily needs and even the time of the day. This solution is especially applicable in houses of modest means and limited space. The courtyard also was a venue that blended domestic activities with work ones, in a way becoming a workplace where many tasks for daily sustenance were performed.

The finding of few and fragmented items seemed to correlate with the use of the ground floor for commercial endeavours; additionally, the abandonment and demolition of the house implied the

emptying of its contents by the last occupiers. This notion underlines that much of the material culture was residual. The finds related to the house and associable with religious beliefs indicated that the inhabitants' preferences seemed to lean towards Paganism, which is particularly interesting given that Late Antiquity is deeply linked with the spread of Christianity (Papaconstantinou 2012: 216). The absence of Christian related objects could have depended on the formation processes of the archaeological record; it was reflected in the implications of the absence of finds and considered the biases of the preservation of material culture assemblages (see Binford 1973; Schiffer 1986). Nonetheless, it could be that the case study house may represent a facet of society that was still practising Paganism or whose cultic activities were tied with the earlier local customs. This suggestion triggers questions on the variability of religious preferences during 400-450 CE, particularly in lesser archaeologically investigated areas. As seen in *Section 2.3.1 – Timeline*, the country was constellated by many religions in the 4th and 5th centuries CE (Römer 2019: 80, 84), and the spread of Christianity has been interpreted as gradual (Bagnall 1987: 248–49; Depauw and Clarysse 2013: 432–33). Though some of the events that historically characterise the 4th and 5th centuries CE were political division and religious debates and councils, as emphasised as they may be in the written records, perhaps they would have been perceived less dramatically from a local perspective. It is thus necessary to consider more fluidity within the domestic cultic experience, a fluidity where Pagan and Christian magico-religious practices and material culture were combined.

The investigation of more individual houses would permit gauging the religious subtlety and variability in the archaeological record (as in the case of Boozer 2012), particularly in areas like the Delta, which were interfaced with isolated monastic communities (at Abu Mina, Kellia) and Alexandria, where Pagan teachings continued to be carried out well into the 6th century CE (Rémondon 1951: 63–4; Watts 2006b). What is more, it would help further explore the variability of domestic religious expression and in turn lead to a more comprehensive understanding of religion, not solely focussed on dogma but also the lived experience of it (Boozer 2022: 158).

Time

The excavation of the Kom al-Ahmer house is but one example of how we can begin bridging the gap between the written evidence, often much concerned major events and individuals in positions of leadership, and the lived experience of persons of all backgrounds. The concepts of change and transition in the case of Late Antiquity, often linked with crisis and decline (Cameron 1998: 9; Diaz 2017: 28–9; Ritner 1992: 284), can be explored with a more private and individual lens through the study of (many) houses that could allow to grasp nuances between individual choices vs government-

mandated impositions vs the influence exerted, either intentionally or not, by the elite members of a society (the so-called *influencers* that can be indicative of ways in which change happens).

The study of Late Antiquity has been tightly linked with the study of the transition from Antiquity to the Middle Ages and that of Christianity.[175] The concept behind Late Antiquity had been in discussion since the 17th century, when it was first deemed as a shift that had to be canalised into one specific date; then, in the 19th century, opinions altered, and it began to be viewed as a more progressive shift that took its time (Gibbon 1789 is a notorious example; Rebenich 2009: 77–78). In addition to deliberating over its timeframe, there has been a continuous debate over its perception and condition, to put it briefly, whether it was a time of revival or decline. Its pessimistic perception was tied to its initial designation as a transitional period linked to the decline of Classical Antiquity (Rebenich 2009: 79). The focus of Anglo-American historians on the decline of the Western half of the empire invertedly tied itself to the Eastern half, which led to the inaccurate derivation that both areas were subjected to the same influences and stimuli (James 2008: 25). The concept and recognition of Late Antiquity substituted a more crude cut off from the end of the Classical period and the beginning of the Medieval one (James 2008: 24–25), restoring a more natural and organic phase that eventually came to be delineated with its own identity and not exclusively as a transitional period (Marrou 1949; Mazzarino 1966; Piganiol 1947). The trouble with using the term 'transition' in archaeology is that it becomes a label that is sometimes too readily applied to those less studied periods, grey areas, the so-called knowledge gaps (Frangipane 2012: 40–41; Giardina 1999: 171).

The realisation that the study of Late Antiquity would yield insights into the history of Christianity became a trigger for interest in the period. Arnaldo Momigliano (1963) published a series of essays, within which he also engaged with the understanding of the decline of the Roman empire among the topic of Christianity and Paganism. Peter Brown's book (1971) was pivotal in the emergence of an impression of Late Antiquity detached from the concept of decline but rather more inclined towards intellectualism, religion, and art (Rebenich 2009: 90), though some have argued that it might have overconcentrated on spirituality to the point of excluding other topics (James 2008: 26, 29). Concerning Egypt, much interest has been expressed in monastic archaeology and the transition from Paganism to Christianity; from a certain point of view, this interest in religious contexts seems to mirror the popular interest in Pharaonic religious and funerary contexts.

In Lavan, Özgenel and Sarantis' (2007) book on housing in Late Antiquity, Ellis (2007a: 7) commented that Egypt did not figure in the publication due to the fact that 'much of the evidence from

[175] The term Spätantike (Late Antiquity, antiquité tardive, tarda antichità) was developed by art historian Alois Riegl (1901) at the beginning of the 1900s to refer to Late Roman and Christian art. Its use in Oscar Wulff and Wolfgang Fritz Volbach's (1926) book on Egyptian textiles and Coptic art prompted its first use in the English-speaking realm of academia, in a publication also on textiles by Paul Friedlaender (1945), followed by physicist and historian Shmuel Sambursky's publication (1962), and then historian Peter Brown (1971), whose book "The World of Late Antiquity" gained widespread attention, to the point that his name is closely associated to the affirmation of the term Late Antiquity (Bowersock et al. 1997; Brown 1997; James 2008: 20–22; Rebenich 2009).

the province remains textual' whilst adding that it was challenging to determine Egypt's against the developments in the other provinces. This consideration appeals to the necessity to integrate the papyrological data with the archaeological one. Household archaeology began to be formally approached in the Anglo-American academic realm in the late 1970s as a part of the shift from macro to the micro-scale investigation; it linked with social as well as processual archaeology (though it eventually outgrew the latter with post-processual archaeology), which were already established at the time, and had the objective of linking the general theories of social change with the analysis of units at settlement level (Tringham 2001: 6925–6; Wilk and Rathje 1982: 617–18).

6.2 – To what extent did the environment and geography of the Delta play a part in the design of the house?

This question was addressed in Chapter 2 – Geographical, Environmental, and Historical Background and Chapter 4 – Beyond the excavation: analysing architecture and usage. The environmental situation of the Nile Delta was described and the architectural survey elaborated on the rapport between mudbrick architecture and the floodplain's geology, which is abundant in swelling soils. The survey concluded that the building of the house had to consider the underlying geology and its long-term effects on the architecture. The house sported a foundation trench over a metre deep, and this choice was linked to the region and the soil typology. Deep foundation trenches were a method to withstand the effects of humidity, as they could reach a depth where the ratio of soil's moisture would ideally remain balanced.

Nevertheless, this desired outcome was not always achieved, and the impact of soil shrinkage was embodied by the walls' courses becoming concave over time. This thesis suggests that concave walls were not an architectural choice but rather the result of subsidence due to the weight of multi-storey buildings' settling over swelling soils. This process would presumably occur after the construction; hence it would technically occur over time and be linked with the longevity of the house. Neither of the two foundation trenches identified in the excavation exhibited a concave base; on the contrary, they had been arranged to be as linear as possible. The walls displayed different degrees of 'concaveness,' which could be observed how this was influenced by what the foundations lay on, mainly soil, but some walls overlapped an earlier building, which created dissension in the settlement of the building. In the Kom al-Ahmer case, the earlier buildings' foundations were not reused as a base for the new buildings, which indicates that it was either not considered or not necessary to ensure stability. The use of mudbrick per se helped resist the consequences of humid soils due to its technical specifications that allow it to endure stresses, thus making it a more ideal building material for this type of environment. Mudbrick, however, is susceptible to excessive water amounts, which if absorbed can lead to deterioration and break (Helmi 1990: 280), hence why there are less preserved mudbrick houses

in the Delta, which is more humid than Upper Egypt. This thought leads to reflect on impermanent architecture, buildings that may be erected with the awareness that despite constant care they will eventually deteriorate to the point of becoming unsuitable and unsafe for inhabitation. Huebner (2016: 169) touched on the topic of the significance of the material house against the significance of household as the community of its residents, putting forward the latter as more likely to be influential. This proposition allows one to reflect on the perception that the inhabitants of the house may have had on the physical building, which may have been tightly linked with impermanence, ephemerality, and a possible consciousness of temporality.

Concerning the observations on the relation between foundation trenches and walls, it would be interesting in the future to compare the data registered from the Kom al-Ahmer house with data from other Late Roman houses, in the Delta and elsewhere in Egypt, to note if there is any concordance between the depth of the trench and the width of the walls. Specifically, one may look for eventual correlations associated with the wall width, whether thin or thick, and the depth of the trench, to inspect if a thicker wall —hence, an investment in more bricks— would have allowed for a shallower trench. This research so far suggests that the construction choices would have been framed by the environmental conditions of the settlements, which would mean that the builders would have adopted strategies that would have responded better to the area's environmental stimuli. While this assertion may sound moderately deterministic, it does not intend to push the reader to review construction techniques under a purely deterministic lens, but rather to acknowledge the possibilities offered by regional variation. Zakrzewski, Shortland and Rowland (2016: 82–3) remarked on the diversity and fluidity of Egypt's environment over time and space, emphasising the significance of considering the geographic and regional perspective given Egypt's size and diverse climate and resources.

The research has noted that mudbrick was the most commonly used building material for domestic buildings. In contrast, the adoption of fired brick and stone seems to be more related to economic possibilities than necessary technical requirements as there does not seem to be linearity in terms of location and choice of materials. Considering the general regional impact, Kom al-Ahmer's position was strategically in proximity to the Idku basin, the Rosetta branch of the Nile (which lies less than 8 km), and the river canal west of the site identified by the coring survey (see *Section 2.2 – A wetland environment between the coast and the desert*)[176] which resulted in the site being well-integrated in the Late Roman trade network (see the coin and pottery evidence in *Section 4.2.4.2 – The 'coin floor'* and *Section 4.3.2.4 – The amphorae storage building*). This active connectivity may have also allowed to ship in building materials, such as stone but possibly also fired bricks. So far, no industrial production area has been identified on site, yet use of fired bricks in the bathhouse's construction and in the robbed

[176] Aside from the finding of fish bones, which denoted that fish were part of the house inhabitants' diet (see Appendix to Chapters 3 and 4, Faunal Remains), evidence for fishing activities, perhaps at the lake, was a long copper alloy tool with looped ends (b2086) which seems to have been a netting needle (a parallel can be found at the British Museum, museum number 1888,0601.10, from a cemetery at Naukratis and dated to 350 and 250 BCE).

foundation trench cutting the case study house —not to mention structures on the central mound, which made use of both fired brick and stone— testify to their presence on site and the inhabitants' ability retrieve the construction materials. This prospect can be telling of the socioeconomic conditions of the house inhabitants, who had opted for a cheaper, though adequate, construction material and used fired bricks sparingly for small installations often related to water or fire. Another possibility to consider is that people could have potentially reused fired bricks by sourcing them from other structures in the settlement. For instance, the architectural remains of the Roman bathhouse denote that the building underwent ancient restorations, which is not surprising considering the longevity of the use (from the 2nd to the 8th century CE) (Kenawi 2014: 109–110). Possibly, the discarded fired bricks could have been re-employed locally for smaller-scale projects.

6.3 – Did the Roman influence shape the identity and design of this specific Egyptian house?

This question was addressed in Chapter 5 – An Egyptian house in a Mediterranean context, and it arises from the fact that by the 5th century CE, Egypt had been integrated within the Roman empire for five centuries. Having reviewed the architectural form of the case study house against examples of contemporary and earlier dates throughout Egypt —which showed a general trend by which the owners or occupants of aristocratic dwellings were keener than those of non-elite dwellings to adopt foreign architectural and decorative styles (peristyle courts, mosaic floor) as well as costlier materials (stone and fired bricks)— it was found of interest to equate it also against a sample of more or less contemporary non-elite examples from other regions of the Roman empire. Kom al-Ahmer's proximity to Alexandria and the Mediterranean Sea could have conceded a greater response to external stimuli. The cross-comparison was based on the footprint and ground plan of houses as it was the one piece of architectural evidence akin to all the case studies that were considered.

Egyptian domestic architecture has been considered different from that of the other nearby regions of the Roman empire due to the prevalence of indigenous architectural customs (Brooks Hedstrom 2017: 221–22; Uytterhoeven 2007: 89); the examples embracing foreign trends were usually the property of families of wealthy means. In this instance and according to the sample of assessed house remains, the results of this analysis showed that non-elite domestic architecture tended to maintain strong ties with the local building customs even outside Egypt and that the adoption of foreign, in this case, Roman, building styles was more of an elite preference. The preference for a local style may have robust links to the environment, in which mudbrick architecture was more suitable due to its technical characteristics. Nonetheless, a vast grey area is represented by decorative elements, which could have been used to express style preferences that reflected foreign trends. This topic was not considered in detail due to the preservation of the case study house; the only evidence for internal

decoration was painted plaster fragments, attested in domestic contexts at most sites of the Roman period in the Fayum (Davoli 2015a: 182). Dwellings at Ismant el-Kharab (Kellis) and Amheida (Trimithis) in the Dakhleh Oasis still bore painted plaster on their walls. These houses (see Davoli 2012: 267, 271, 277; Hope and Whitehouse 2006: 323–326) have been interpreted as belonging to families of high social status. Yet, even some houses of Djeme bore the remains of plastered walls, sometimes incised or painted (Wilfong 2002: 11). Given the dimensions of the case study house and the socio-economic situation of its inhabitants, painted plaster could represent a decoration style within the economic means of the household; its inclusion in the house's decoration adds to the complexity of identity expression amidst a multicultural society (Boozer 2012: 111).[177]

Indeed, the choice of the architectural style and building materials seem to relate more to the needs of the inhabitants, which are often anchored to their socio-economic conditions. Nonetheless, the local building traditions span from previous experience that took advantage of the accessible construction resources and understood how to implement them effectively within the inhabited environment. Thus, the adherence to local Egyptian customs embodies not the refusal to embrace novelty but the need for a building that could be efficiently managed —substance over style. A fired brick house would not have had the same insulation properties as a mudbrick one. Tiles would have rendered the roof space inaccessible. A settlement in the Delta floodplain had less space at disposal than a site in a desert plain and would have had to maximise space by constructing vertically instead of horizontally. Stone was an expensive material to procure. On the other hand, mudbrick walls benefited from a plaster or lime wash (Boozer 2015a: 22) as it would have provided additional mechanical strength for the walls in addition to protection (Flinders Petrie 1938: 6–7; Kemp 2000: 92), which meant that applying painted plaster to the interiors of a house would not have posed functional hindrances.

The discussion also dwelt on whether the decorative elements are features that allow distinguishing between elite and non-elite houses. The implementation of painted plaster to coat the case study house's internal walls, as opposed to cheaper —but effective— mud plaster, embodies a stylistic choice made by the inhabitants, a choice that they could perhaps afford, either dictated by personal taste or related to the use of the house. This implementation does not alone define the status of a house as much as size does: they can be indicative but not definite guides. For instance, Depraetere (2005: 164) emphasised that the size of the houses of Roman Karanis was linked with the size of the family rather than the socio-economic condition, and small dwellings should not be hastily categorised as inhabited by poor people. Defining a threshold for elite and non-elite is complex, both at regional and interregional levels, so single case studies can help grasp instances of this complex characterisation and allow for an investigation of the vast grey area between elite and non-elite. The analysis in Chapter 5 – An Egyptian house in a Mediterranean context highlights the variability existing in the stretches of

[177] Yegül & Favro (2019: 263) stated that in Roman society 'middle-class city dwellers with aspirations sought apartments that imitated the basic architectural design components of elite residences.'

the empire and the need to continue investigating non-elite houses to understand the reaches of this variability and all possible combinations, which blended socio-economic situations, environmental conditions, construction materials, available space, the intermingling of domestic and work activities, and personal tastes.

6.4 – Considerations for the future

We are aware that single case studies cannot be wholly representative of a whole community, and they should be understood as facets of society that allow broadening our perspective on past societies. The detailed excavation of individual houses is a way to reach the end goal: grasping the complexity of daily life and the small details that can denote variability. An investigation focused solely on a single house allows for a deeper analysis that can lead to discussions on various topics: the case study house at Kom al-Ahmer incentivised questions on architecture in the Nile Delta, non-elite daily life, the flexibility of domestic space use, and local and imported design trends. The investigation of the case study house demonstrated the existence of several phases of activity, changes in intention, function, and usage, a possible generational character, and eventual limitations on further expansion in the residential sector; these results imply that each excavation is potentially a rich data source. Some questions could not be answered with assurance, but this uncertainty denotes the plethora of possibilities in which people expressed themselves. This is why many book/article/report conclusions invite more excavations to be carried out: to be able to grasp a number of these possibilities and escape what Boozer (2014) called the 'tyranny of typologies.' More excavations would allow us to evaluate the lived experiences of individuals beyond what papyrological data can provide, confirming, disputing, and enriching the *corpus*. The integration of papyrological evidence with archaeological one proves to be fruitful in pursuing interrogatives that could not be comprehensively approached using only one mean (see Allison 2022; Pudsey 2022; Uytterhoeven 2022). Yet, where careful archaeological excavation is conducted, it is possible to reach a detailed level of understanding of the context that can allow exploring questions that may not have been otherwise considered, questions that are different from the ones that would be posed to the textual evidence (for instance, the examination of construction and foundation issues). Concerning the chronological periods, the archaeology of houses could allow to determine and compare continuities and differences between the Pharaonic lifestyles and the temporally subsequent ones up to Medieval and early modern Egypt.

Certain sites maintain a status as reference sites, but this is in part dependent on the high quantity of retrieved data; tens of houses were excavated at Karanis, and the same cannot be said of many more Egyptian sites. This achievement was also attained in the excavation logistics of the early 20th century, in concomitance with the *sebakheen* activities; the dig employed hundreds of workers. High quantities of material culture were extracted from the site. The excavation documentation provided

phase plans for a considerable portion of the settlement; the architectural survey, the photographic documentation, and even video footage helped attain a more intimate understanding of these buildings and the urban sector. This data alone has been used as base for several studies (for instance, Barnard et al. 2015, 2016; Bos 2007; Depraetere 2005; Gazda and Wilfong 2004; Haatvedt and Petersen 1964; Husselman 1952; Husselman and Peterson 1979; Simpson 2014; Susak Pitzer 2015; Van Minnen 1994; Vermeeren 2016; Wendrich, Simpson and Elgewely 2014; Wilburn 2010).

In this thesis, the investigation of the case study house has denoted that its plan equates to the Ib square type in Depraetere's classification of C-Level houses at Karanis (Depraetere 2005: 59–61). This type of house has been referred to as Fayumic, but the case study house demonstrated that it could also be used in the Delta. Moreover, houses with the same plan were also found at Syene (Aswan) (House 5 in Jaritz and Rodziewicz 1994: 118) and Djeme (Medinet Habu) (Houses 59 and 117 in Hölscher and Nelson 1931: 50–1). It should also be mentioned that Karanis sported several different house types pending on shape, dimensions, and the number of rooms. Linking this data with Boozer's argument, what could have been a Fayumic style may be widespread throughout the country. The fact that we tend to associate it with Fayum sites depends on the extent of the excavations carried out at those sites and the prominence they had in publications rather than the fact that this was the 'typical' house type. *Section 5.2 – Overview of the development of house form in Egypt* has illustrated various house types. How common were these varieties and whether it is possible to identify a conventional house type at the regional or country level is a question for the near future, by which time more non-elite and elite house studies from the Delta, the Valley, the Oases, and the coasts will figure more prominently among publications. Single case studies of non-elite houses are key to detecting shifts or adhesions to what has generally been considered canon (for a specific period or region) to either confirm or dispute it or acknowledge the variability range better. Furthermore, it should be pointed out that generally much data and historical accounts often focussed on cities, which limits the perspective of the provinces and smaller settlements. A number of non-elite case studies from one site are ideal for viewing this variability within one community, which then leads to complementing the general knowledge we have on historical periods to show the extent to which life was conducted and perceived within their community amidst the socio-political climate, which then can be correlated with the other communities to form a multifaceted understanding of the entire country. A concentration on non-elite houses is necessary to gain a more representative view of society.

Some areas of Egypt allow for better levels of preservation than others. The Delta is not one of those due to its humid environmental conditions, not to mention the high levels of urbanisation and extension of agricultural fields that often encroach on or cover the archaeological sites; however, this should not deter from concentrating on certain areas. The investigation of the Kom al-Ahmer house aims to show that much can be recorded and reconstructed in contexts also in areas less prone to good preservation conditions. The methodology of this thesis does not presume to be the model to follow,

but it represents a way in which a house can be investigated depending upon the available means and the logistics at disposal at that time.

At one of the seminars of the initiative 'Being Egyptian,' an online event series organised by Dr Linda Hulin (University of Oxford) and Dr Thais Rocha da Silva (the University of Oxford and University of São Paulo) in collaboration with the Egypt Exploration Society,[178] Dr Hulin remarked about the usefulness of PhD studies on houses in deepening our comprehension of houses, from the concept of house to its architecture and the understanding of domestic space, not just in Egypt but also Sudan and the Near East. I hope to have made a valuable contribution to the discussion.



Figure 233 Artistic overlap of the tentative reconstruction of the house over a photograph of the archaeological remains (May 2018).

[178] The seminars took place between the 2nd of March and the 22nd of June 2021 (https://www.ees.ac.uk/news/being-egyptian).

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The Archaeology of Daily Life:
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Two volumes

Volume 2:

Appendices

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Appendix to Chapter 2

Appendix to Geographical and Administrative Divisions

Before Diocletian's division, the country was organised into *epistrategiae*, great districts, a legacy from the Ptolemaic administration. There were three: the Delta, the Heptanomia – the area between Memphis and Cynopolis – and the Thebaid (Benaissa 2012; Bodham Donne 1854: 148; Bowman 2005: 316). Starting from Diocletian, in concomitance with the start of the Late Roman period and during the 4th century, the country was internally divided on several occasions:

- 295 CE: Diocletian divided Egypt into two, Aegyptus and the Thebaid (Upper Egypt), in 295 CE (Bowman 1996: 79 figure 4).
- 314/5-325 CE: division into Aegyptus Herculia (which included the Eastern Delta and Heptanomia), Aegyptus Iovia (the Western and Central Delta), the Thebaid, and Lower and Upper Libya.
- 322 CE: Herculia underwent an additional division when old Heptanomia became Mercuriana, but this was reversed following Licinius' demise (Bagnall 1993: 63; Palme 2007: 246, figure 12.1).
- 325-41 CE: back to Aegyptus, the Thebaid, and Lower and Upper Libya.
- 341-395 CE: Aegyptus, Augustamnica – virtually the same as Aegyptus Herculia, comprising the Eastern Delta and the Heptanomia – the Thebaid, and Lower and Upper Libya.
- 381 CE: Egypt became an independent diocese from *dioecesis Oriens* (Lallemand 1964; Palme 2007: 245).
- 395-ca 500 CE: Aegyptus, Augustamnica, Arcadia (Heptanomia was divided from Augustamnica and renamed Arcadia in 397 CE (Benaissa 2012)), the Thebaid, and Lower and Upper Libya (Palme 2007: 245, referring to the Notitia Dignitatum).
- 560 CE: the divisions expanded into Aegyptus I and II, Augustamnica I and II, Arcadia, Lower and Upper Thebaid, and Lower and Upper Libya (Bowman 1996: 79, figure 4).

It must be highlighted that the list in Table 38 does not presume to be comprehensive of all the figures and roles that characterised the Roman administrative machine in Egypt; the aim is to provide an overview of the situation that will allow to contextualise the site of Kom al-Ahmer within it and

further the understanding of the site during the Late Roman period and, therefore, also of the Late Roman house and its inhabitants.

Table 38 The geographical and administrative organisation of Roman Egypt.

AREA	**POST(S)**	**Additional information**
Egypt	Prefect (*praefectus Aegypti*) → governor of Egypt Then *praefectus Augustalis* (Palme 2007: 245)	The prefect he answered to the praetorian prefect of the East (Keenan 2001: 613).
Epistrategiae then ~~Provinces~~ dioceses	*Epistrategos* (until 302 CE) then *Praeses* (civil administrator) and *Dux* (military governor) [as well as a series of other figures that were part of his officium staff (Keenan 2007: 617)]	The *epistrategos* was the governor of a district of Egypt under the prefect equestrian (Bagnall 1993: 336). The *epistrategiaie* disappeared by 302 CE (Bowman 2005: 319). The figure of the *praeses* came in concomitance with the late 4th century CE reorganisation of the country (Bagnall 1993: 63–4; Bowman 2005: 316–17; Kelly 2011: 31). The *praeses* was 'a governor of a part of Egypt' (Bagnall 1993: 337), and the dux was the 'military commander responsible for a province' (Bagnall 1993: 336; Ritner 1998: 24). Instead, Augustamnica had a corrector (Palme 2007: 245).
~~Nomes~~ civitates? Administrative districts	*Strategos* (head of *nome*) (Bagnall 1993: 337). Eventually, this figure was forsaken in favour of the exactor (or *strategos/exactor*) by 309 CE.	The *strategos* was an administrative officer drawn from outside the *nome* and centrally appointed to govern it (Bagnall 1993: 57). Contrary to the *strategos*, the exactor was chosen among the town residents (Bagnall 1993: 61). The shift from *strategos* to *exactor* has yet to be understood well (bowman 2005, p. 321, footnote 39)

Toparchies (subdistricts of *nomes*) then renamed *Pagus/i*	*praepositus pagi*: governor of a *pagus* (Bagnall 1993: 337; Kelly 2011: 32) responsible to the *logistes* and the *exactor* (Bowman 2005: 321).	By 307/8 CE, the geographical and administrative subdivisions of the *nome*, formerly called toparchies, had been superseded by *pagi* (Bowman 2005: 321). The figure of the *pagarch* was created in the late fifth-early sixth century (Bowman 1996: 81, 83).
Metropolis/metropoleis	*Logistes* (*curator civitatis*): imperial officials responsible for the metropolis's administration (Bagnall 1993: 337). Local councils → executive posts: president of the council (*PRYTANIS*), finance officer (*THELOGISTES, the curator civitatis*), exactor of taxes (or *strategos*), legal officer (*SYNDIKOS* or *Defensor civitatis*), head of security (*riparius*) (Bagnall 1993: 61; Bowman 2005: 321). Curiales → all other people of the councillor class who ended up being tax collectors	The *metropoleis* were the principal settlements of *nomes* (Bagnall 1993: 337). All posts had links to the central government as their responsibility went beyond the metropolis and regarded the whole district (Bowman 2005: 321).
Towns	Town councils (*boulai*)	The town councils were established in 200/1 CE as part of Septimius Severus' act of 'municipalisation.' Under Diocletian, they were assigned more administrative duties (Bowman and Rathbone 1992: 108).
Villages (komai) (κῶμαι)	komarch	The principal village representative (Bagnall 1993: 337).

Appendix to Chapter 3

Appendix to The excavated contexts

Surface Layers

The surface soil deposits varied from extended layers that covered wide areas of the excavation unit (such as F4000, F4002, F4007, F4008, and F4012) to more specific parts, often limited by the top preserved courses of the mudbrick walls (F4001, F4003, F4004, F4005, F4006, F4009, F4010, F4011, and F4013). Despite an initial clean-up of the surface, which contained modern materials, including some hazardous items such as fragmented glass, an animal carcass, and generic waste, some modern materials (mostly glass shards, organic remains such as accumulations of grain, and some plastic fragments) were also retrieved from features F4000, 4002, 4004, F4006, 4007, F4008, F4012, and F4013. Areas that exhibited remains of burning, possibly hearth remains, were F4000, F4004, and F4008. Charcoal accumulations were detected in F4002, F4005, and F4013.

The findings from the superficial soil deposits are mostly similar in each layer, with a few exceptions. Pottery sherds, glass shards, and animal bones were found in all features, bronze coins were retrieved from almost every layer except F4005, whereas shells and slag were registered in all features aside from F4003, F4004, and F4005. The objects of a more personal nature were encountered in some deposits: one glass bead (KAO 67) from F4000, remains of bone hair pins (KAO 4 and KAO 6) from F4001 and F4011, respectively, and two more fragments of worked bone, one of which could be for a fitting (KAO 20) from F4011 and F4004. One of the few figurine fragments encountered within the whole excavation unit's limits was recovered from F4012, and it was a fragment of a Nefertem amulet in painted limestone (KAO 40). Stone objects such as pestles (KAO 91, 93, 94, 95, 97, and 98) were found in F4000, F4008, and F4011. F4008 and F4013 also yielded two grinder fragments (KAO 96 and KAO 114). In hindsight, six out of eleven pestles and two out of five grinder fragments that were found within the excavation unit were retrieved from the superficial layers, which were interpreted as associated with the latest recordable phase of use of the Late Roman house; therefore, they can be related to the activities taking place outside and on the ground floor of the house. Organic remains (mostly charcoal concentrations) were detected in F4001, F4002, F4004, F4007, F4008, and F4010; they are likely to represent modern inclusions, given the presence of modern material in all these layers (except for F4010).

Findings of building materials were varied: fired bricks were noted in multiple layers (F4000, F4001, F4002, F4003, F4005, F4008, F4009, F4012, and F4013), worked stone for building (such as slab fragments) was found in F4000 and F4011; however, fragments of limestone of various sizes (from

pebbles to cobbles) were noted in layers F4006, F4007, F4008, F4010, and F4011. Iron nails were found exclusively in F4000, F4002, F4004, and F4005.

Room A

The initial observation of the ground surface and the aerial photographs assumed that a corridor allowed access to the room on its eastern wall. The excavation revealed that the surface impression did not correspond to the preliminary interpretation. The laying out of a later foundation trench (F4126) for another building generated the corridor's shape; this is discussed in Section *3.3.7 – The robbed* foundation trench. The foundation trench cut into wall F4143 and was initially thought to have represented an entrance's remains (Figure 234). The cut's width is approximately 1.05 m, which is comparable to the width of the sides of the foundation trench.



Figure 234 The cut left by the robbed foundation trench F4126 on wall F4143, the eastern wall of Room A.

The room's excavation exposed the internal façade of the walls, which bore no traces of coating. The loadbearing walls (northern and western) presented two offsets, whereas the eastern and southern walls exhibited none. A hole was noticed on the eastern wall: it was placed at the centre of the wall's façade, approximately 40 cm below the cut's level. It was the only hole of this kind identified on the house walls; therefore, it is unclear whether it represents the remains of a fixture or if it had an architectural function. The fact that no others were identified leads to the assumption that it did not

serve a purpose specific to the house's construction, but it cannot be excluded that it might have been utilised for something else.

The number of soil deposits identified within the room was six, and they were termed F4017, F4021, F4065, F4066, F4067, and F4068. Apart from F4068, which was only partially uncovered, all the other layers extended uniformly within the room's boundaries. In terms of appearance and consistency, the soil layers had similar characteristics: the colour was light greyish brown, the texture was silty, and the compaction was crushable; they differed primarily due to the inclusions and the typology of artefacts recovered. Therefore, the categories of artefacts retrieved from these layers are looked at in detail as they could reveal some specific information related to the remains of the occupational levels.

F4017 was the layer from which most coin finds were retrieved. Aside from the coins, the findings consisted of pottery, animal bones, diagnostic and non-diagnostic glass shards, copper alloy fragments, slag, a worked fragment of stone (KAO 101), and 58 bronze coins, ten of which could be dated with precision: KAC 30 dated to 294-295 CE, KAC 61 dated to 330-335 CE, KAC 89 and 91 dating to 350-361 CE, KAC 109, 111, and 112 dated to 355-363 CE, KAC 153 dated to 378-388 CE, KAC 213 dated to 404-406 CE, and KAC 226 dated to 425-435 CE. The other coins mostly dated to the 4th and 5th centuries CE. Among the pottery evidence retrieved from the deposit, there were sherds of Egyptian utilitarian ware, mainly cooking casseroles (KAP 503, 522, 525, and 532) and food preparation basins (KAP 613) and sherds of imported amphorae of the type LRA 1 (KAP 1100, 1112, and 1135) and local amphorae such as AE 7 (KAP 1248). The timeframe of LRA 1 type amphorae is between the second quarter of the 4th century to the 7th century CE at least, whereas the amphorae AE 7 date to the second quarter of the 5th century CE (Mondin 2019 p.147, 165).

The following layer, F4021, was similar to F4017, but it had more white inclusions (possibly salt) within the soil. The variety of finds was similar, with pottery sherds, three iron nails, non-diagnostic glass shards, one stone pestle (b571), copper alloy fragments, one fragment of a marble slab, and one fragment of faience, animal bones, slag, and thirteen bronze coins. The coins that could be dated most accurately were the following: the tetradrachm KAC 28 (285-286 CE), KAC 62 (320-337 CE), and KAC 108 (361-363 CE). Seven coins dated to the 5th century CE, two between the 4th and 5th centuries CE, and one to the late 4th and early 5th centuries CE. The pottery finds included specimens of Egyptian utilitarian ware, cooking pots (KAP 305, 365, and 438), cooking casseroles (KAP 445, 446, 448, 458, and 493), cooking lids (KAP 581), preparation basins (KAP 614), preparation *mortaria* (KAP 637 and 638), serving basins and bowls (KAP 813 and 863), consumption and serving dishes (KAP 910 and 923), saqiyah pots (KAP 1061), and a smoother (KAP 1080). There were specimens of Egyptian amphorae ‘Spindle-Shaped’ AE 3 (KAP 1188, 1193, 1195, and 1997) and AE 7 (KAP 1243 and 1245).

F4065 distinguished itself by presenting several ceramic fragments on its surface and a higher number of pottery sherds in the southwestern corner, adjacent to the southern wall. The finds included pottery sherds, diagnostic and non-diagnostic glass shards, plaster fragments (c. 80 fragments were painted) (KAO 140), three fragments of marble slab(s), one stone pestle (KAO 102), one worked fragment of a semi-circular object in limestone (KAO 124), fragments of faience, one decorated with a pattern of double vertical lines and circles (KAO 42), copper alloy fragments, animal bones and shells, slag (7.4 kg), fired brick, plaster, and mortar fragments, and seven bronze coins. The bronze coins were the following: KAC 25, dated to 280-281 CE; KAC 47, dated to 285 CE; KAC 29, dated to 288-289 CE; KAC 55, dated to 314-315 CE; KAC 149, dated to 378-388 CE; KAC 158, dated to 388-395 CE and KAC 666, dated to the 4th-5th centuries CE. The pottery remains included Egyptian utilitarian ware, cooking casserole, serving basin, serving bowl, storage jars, storage dolia, and saqiyah pots. The imported (PLACE of production?) amphorae remains were of AC 1A, Kapitän 1, and Keay XXVII, Bonifay 35.

The removal of F4065 exposed offsets on walls F4047 and F4048, which are part of the house's perimeter. They appear to form part of the same brick course and slope from the northwest inwards, respectively, according to the concavity of the wall.

The following feature was F4066; an increase in whitish salt inclusion within the soil was noted. The findings included pottery sherds, plaster fragments, several of which were painted (KAO 141), diagnostic and non-diagnostic glass shards, four iron nails, fragments of faience, nine fragments of marble slab (KAO 119), one fragment of worked limestone, fired brick and mortar fragments, animal bones and shells, copper alloy fragments, 8.3 kg of slag, two pebbles, and two bronze coins. The latter two were KAC 34, dated to 1st-2nd century CE, and KAC 684, dated to the late 4th-early 5th century CE.

The pottery specimens retrieved from this layer were the following: Egy FW (KAP 234), Egyptian utilitarian ware cooking pots (KAP 296, KAP 323, KAP 335, and 358), cooking casseroles (KAP 443, 456, 463, 464, 486, 494, 520, and 523), a cooking lid (KAP 597), serving basins and bowls (KAP 728, 787, 789, and 837), consumption dishes (KAP 895), storage jars (KAP 1032), imported amphorae Cnidian (KAP 1181) and African II or III (KAP 1184), as well as Egyptian amphorae ‘Spindle-shaped’ AE 3-1.4 (KAP 1198) and ‘Spindle-shaped’ AE 3-1.6 (KAP 1198).

Feature F4067 had fired bricks and mudbrick collapse scattered over its surface on the southeastern side of the room. A circular ashy deposit was also present in the middle of the room, lined by fragmented fired brick (Figure 235). It is not clear whether this ashy deposit represented the remains of a hearth; if it did, the remains had been almost entirely stripped out. The presence of details such as the scattered fired and mudbricks and the possible hearth remains indicate activity. Nonetheless, the deposit was homogeneous and similar to the previous ones, albeit for an increase in dusty white inclusions.



Figure 235 View of the soil deposit F4067 before excavation.

The findings from this layer were pottery sherds, a few shards of glass (one base and two non-diagnostic shards), one fragment of marble slab, painted plaster fragments (KAO 142), fragments of faience, fragments of copper alloy, one fragment of an iron object, animal bones and shells, 4.45 kg of slag, one pebble, fired brick, plaster, and mortar fragments, and one copper alloy coin (KAC 14) dated to the 3rd-2nd centuries BCE. The pottery included Egyptian utilitarian ware, cooking pots (KAP 460), serving jugs and bottles (KAP 690), serving basins and bowls (KAP 716, KAP 728, KAP 844), serving painted ware (KAP 949), imported amphora remains of AC 1B (KAP 1170), and Egyptian amphorae Spindle-shaped / AE 3-1.6 (KAP 1189, KAP 1190), and AE 7 (KAP 1252).

F4067 was not excavated entirely due to time constraints as the excavation season was nearing the end. Therefore, a sondage trench was laid out adjacent to the room's western wall; the width was approximately one metre. The sondage trench allowed the excavators to reach another soil deposit, F4068, which differed from the previous in terms of its brown colour and inclusions of fragmented mudbricks. It was not possible to excavate much of that deposit, and the artefacts retrieved were the following: pottery sherds, painted and plain plaster fragments, animal bones, shells, and 400 g of slag (mostly from glass, though few seem to be from metal). The foundations of the mudbrick walls were not reached; instead, the excavation of F4068 uncovered a lower offset on walls F4047 and F4048, which are both perimetral walls.

Room B

The Late Roman Room B

The first soil deposits to be excavated in the area that included Room B were F4014, F4016, F4018, F4019, and F4020. They extended beyond the southern limits of the room as the southern wall F4060 was uncovered after the excavation of F4019. As was the case for the deposits in Room A, the features differed in slight soil colour and contents changes. They presented overall similar characteristics of texture and compaction. The presence of whitish dusty inclusions within the soil was noted in almost all the layers. It did not seem to concentrate in a specific area but was homogeneously integrated into the features., with finds such as pottery bronze coins, glass shards, and the whitish dusty inclusions occurring in all layers.

The highest recorded coin elevation was KAC 937 (5.981 m ASL), whereas KAC 665's in situ position had the lowest elevation (5.644 m ASL). The vertical span between the levels of these two coins was 33.7 cm.

F4014 extended slightly beyond the limits of the room. The southern wall of the room, F4060, was not visible yet. F4014 had a light greyish-brown colour, a silty texture, and crushable compaction. It presented several whitish dusty inclusions on its surface and within it and fragments of fired bricks. The finds from feature F4014 included: pottery sherds, diagnostic and non-diagnostic glass shards, faience fragments, animal bones, shells, slag, and 32 copper alloy coins. The coins that could be dated more precisely were KAC 48 (308 CE), KAC 116 (364–378 CE), KAC 144 (388–392 CE), KAC 170 and 200 (388–403 CE), and KAC 222 (425–435 CE). The remaining coins dated broadly to the 4th-5th and 5th centuries CE. The pottery finds included sherds of imported fine ware ARSW Hayes 67 (KAP 23), dating to 360–480 CE, Egy FW (KAP 229), Egyptian utilitarian ware (cooking pots, casseroles, preparation basins, serving jars and bottles, serving basins and bowls, serving dishes, painted serving ware, painted consumption ware, and storage lids.

F4015 was identified south of the room, in the area where later wall F4060 was exposed. It had a light brown colour, though it exhibited some slightly greyer parts, which were slightly more compact than the rest of the soil. They could have represented fragmented mudbricks' remains, but the texture was like the rest of the deposit. The soil also had a high quantity of whitish dusty inclusions. The finds from this feature included: pottery sherds, non-diagnostic glass shards, copper alloy fragments, animal bones, slag, and three copper alloy coins. One coin (KAC 212) dated between 404-406 CE. The pottery sherds included specimens of Egy FW (KAP 240), Egyptian utilitarian ware (cooking pots, serving jugs and bottles, serving basins and bowls, serving painted ware, and storage jars), and imported amphorae LRA 1 (KAP 1098).

F4018 also expanded beyond the limits of the room. It had similar characteristics to the previous features and inclusions of limestone cobbles. Traces of burning were noted on the surface of the layer outside the room's known southern limits, implying activity related to cooking (especially considering

the typology of pottery finds). The findings were pottery sherds, an incomplete amulet of Harpokrates or Horus the Child (KAO 39), animal bones, diagnostic and non-diagnostic glass shards, slag, shells, copper alloy fragments, faience fragments, one stone pestle, and 47 copper alloy coins. The following coins provided the most accurate dating information: KAC 54 (317–318 CE), KAC 64 (330–337 CE), KAC 88 (350–361 CE), KAC 148 (378–383 CE), KAC 162 (408– 423 CE), KAC 166 (395–401 CE), and KAC 224 (425–435 CE). The other coins all dated to the 4th and 5th centuries CE. Sherds of imported fine ware ARSW Hayes 67/71 (KAP 18) and ARSW Hayes 67 (KAP 19) —the latter dating to AD 360–480— were also collected. Also, the pottery finds included Egy FW (KAP 199), Egyptian utilitarian ware (cooking pots, cooking casseroles, cooking pans, preparation basins, serving jugs and bottles, consumption basins and bowls, and serving painted ware), imported amphorae LRA 4 (KAP 1149) and Knidian amphorae (KAP 1180), and Egyptian amphorae Spindle-shaped / AE3-1.4, AE3-1.6, AE 3T, and AE 7.

F4019 had the same extension as F4018 beyond the limits of the room. The removal of this feature uncovered wall F4060, whose preserved top layers were at a lower elevation than the other walls of the house and exposed a small cluster of fired bricks in the southwestern corner of Room B and more burnt patches outside the room. The finds included pottery sherds, diagnostic and non-diagnostic glass shards, slag, animal bones, a few faience fragments, shells, copper alloy fragments, a semi-circular ivory object (KAO 35), and 40 copper alloy coins, including KAC 65 dated to 330–337 CE, KAC 83 to 350–361 CE, KAC 155 to 378–388 CE, and KAC 233 to 425–435 CE, whereas the other coins date to the 4th–5th centuries CE. The pottery study identified ARSW Hayes 67 (KAP 23 and 25), ARSW, and LRD Hayes 1, which dates to the late 4th century and the third quarter of the 5th century CE. There were also specimens of Egyptian utilitarian ware (cooking pots and cooking casseroles, serving and consumption basins and bowls, and pot stands), imported amphorae LRA 4 (KAP 1148) and LRA 2 (KAP 1179), and Egyptian amphorae (Spindle-shaped / AE3-1.6, AE 3T, and AE 7).

F4020 was similar in appearance and composition to the previous soil deposits but differed in the finds' typology. The feature yielded two bone hairpins (KAO 7 and b519), the first painted plaster fragments retrieved from Room B (KAO 139), and a stone pestle (b532), in addition to the more common finds of pottery sherds, animal bones, shells, slag, diagnostic and non-diagnostic glass shards, copper alloy fragments, and 42 bronze coins. Seven coins provided detailed dating evidence: KAC 49 (305–306 CE), KAC 50 (295–299 CE), KAC 52 (295–307 CE), KAC 96 (350–361 CE), KAC 154 (378–388 CE), and KAC 194, KAC 203, KAC 207, and KAC 208 (388–403 CE). There was also a coin dating back to the Ptolemaic period, KAC 11; this was not the only instance when earlier coins were encountered in later phases. It has been argued that rather than viewing these cases as contaminations or outliers, they might represent reuses (Asolati and Crisafulli 2019: 12). The pottery remains provided similar dating evidence to that of the coins: specimens of ARSW Hayes 57 (KAP 7) and Hayes 6, dating back to 360-480 CE, and LRD Hayes 1 (KAP 64) and LRD Meyza K1 (KAP 69), dating back to 380-450 CE.

The layers identified above the walking surface F4074 were F4022, F4069, F4070, F4071, F4072, and F4073. They were all soil deposits.

In addition, a one-metre-wide sondage trench was started on the northern side of the room following the exposure of F4072. The trench provided a preliminary view of the room's internal stratigraphy, which aided with the rest of the room's excavation.

F4022 and F4069 had very similar characteristics (greyish brown colour and crushable compaction) but were considered distinct features because F4022 had been contaminated with modern material as the feature had been exposed but not excavated in the 2014 season, covered, and then exposed again in 2016. Most of the typologies of material culture from the two features are similar, but there are a few peculiar differences. The number of bronze coins diminishes when reaching F4069; the feature also yielded fewer slag and presented marble and limestone stone finds. An accumulation of fired bricks (about 15) was detected in the southwestern corner of the room.

The finds from F4022 were pottery sherds, two fragments of lamps (KAP 1309 and 1310), diagnostic and non-diagnostic glass shards, three iron nails, copper alloy fragments, painted plaster fragments, animal bones, shells, slag (400 g), and 22 bronze coins. The coins that provided accurate dating were KAC 133, dated to 383-392 CE, KAC 177, 197, 202, and 204, all dated to 388-403 CE, whereas KAC 214 to 404-406 CE. The finds from F4069 were pottery sherds, a fragment of a stone lamp (KAO 69), painted plaster fragments, five iron nails, diagnostic and non-diagnostic glass shards, copper alloy fragments, one chunk of mortar, animal bones, shells, two small fragments of marble and two fragments of limestone slab, faience fragments, slag (3.55 kg), and two bronze coins, one of which (KAC 21) is a tetradrachm dating to 128-129 CE. In contrast, the other (KAC 502) dated to the 4th-5th centuries CE.

F4071 and F4072 were similar to F4069 and F4022; however, a different feature lay under F4069 and over F4071. F4070 exhibited a darker greyish brown colour and harder compaction due to the inclusion of fragmented mudbricks. Contrary to the other layers, this deposit was identified solely in the southern part of the room. The location and characteristics could indicate that it might have represented an intended accumulation or part of a collapse. The finds retrieved within it included pottery sherds, one iron nail, one lamp fragment (b792), painted plaster, diagnostic and non-diagnostic glass shards, animal bones, shells, slag (1.05 kg), a limestone altar or incense burner (KAO 126), and one bronze coin (KAC 351) dating to the 4th-5th centuries CE. The limestone altar or incense burner (12 x 10 x 13 cm) was found out of context, on its side and slightly oblique, as if it had been thrown down. It must be noted that this deposit was not wholly removed. It formed part of the artificial steps that allowed access to the work team into the room; therefore, the finds recovered from the features' excavation might not be fully representative.

F4071 and F4072 were arbitrarily divided, but they were very similar and most likely the same deposit. The typology of finds was similar to that retrieved from F4022 and F4069. F4071 contained pottery sherds, diagnostic and non-diagnostic glass shards, one lamp fragment (b748, a base fragment

of Loeschke 1, an import), a fragment of a bone hairpin (KAO 8), two fragments of a small copper alloy ring (b736), few fragments of faience, animal bones, shells, slag (5.4 kg), painted plaster fragments, and copper alloy fragments. F4072 included pottery sherds, a fragment of terracotta coroplast, diagnostic and non-diagnostic glass shards, animal bones, shells, painted plaster fragments, two iron nails, copper alloy fragments, and slag (7.7 kg). Two bronze coins were retrieved from this layer, and they provided different dating evidence: KAC 24 dated to 144-145 CE, whereas KAC 689 dated to late 4th-early 5th century CE.

F4073 displayed distinct characteristics from the other layers: it had tones of dark greyish brown and light yellowish-grey colours due to fragmented mudbricks manufactured with different soil types. The quantity of finds also diminished when compared to the previous features; however, the typologies were similar: pottery sherds, six iron nails, diagnostic and non-diagnostic glass sherds, painted plaster fragments, copper alloy fragments, animal bones, shells, slag (10.55 kg), one fragment of an iron blade (KAO 290), and the corner fragment of a faience statuette depicting a human left foot and a plinth (KAO 41). The latter was found by the side of a small cluster of fired bricks lying over the walking surface F4074.

The beaten earth surface F4074 exhibited harder compaction, a dark yellowish-brown colour, several fired bricks lying over it (including the statuette fragment KAO 41) and a fired brick with cat paw prints imprinted on it (KAO 294). The feature had a sloped appearance towards the edges and lay over a compact clayey deposit (F4075). The finds from F4074 were the following: pottery sherds, two lamp fragments (b783 and KAO 70), diagnostic and non-diagnostic glass fragments, a few fragments of painted plaster, among which two with traces of gilding, 12 iron nails, copper alloy and iron fragments, animal bones, shells, and slag (3.8 kg).

The context below Room B

The deposits immediately below F4074 were more clayey and compact (F4075, F4078) as well silty but equally compact (F4081); these characteristics and the thickness of these layers (F4075 was 21.4 cm thick, F4078 was 8.7 cm, and F4081 22 cm) may relate to providing a preparation level for the floor level. Nonetheless, the finds encountered in these layers do not differ much from those retrieved from the soil deposit investigated above the level of the beaten earth surface: pottery sherds, diagnostic and non-diagnostic glass shards, iron fragments, fragments of painted plaster, animal bones, shells, slag, a fragment of worked bone, possibly an inlay for furniture (KAO 25, from F4081), a copper alloy ring (KAO 169, from F4081), small fragments of faience (from F4081), six iron nails (two from F4075, one from F4078, and three from F4081), five bronze coins, three pebbles, one of which bore traces of painted decoration (KAO 103, from F4075), and fragments of worked stone, among which marble (KAO 103 and KAO 120, both from F4078). The coins dated to the following periods: KAC 20 (from F4075) to

127-129 CE, KAC 22 (from F4081) to 129-30 CE, KAC 23 (form F4081) to 133-134 CE, and KAC 27 (from F4075) to 283-284 CE.

Several cuts were identified within the area, one of which was observed in F4081. The cut was identified following the excavation; as such, it was not assigned a feature number as it was not possible to distinguish its contents from the rest of F4081 anymore. The cut contained the remains of a fragmented Spindle-shaped amphora (Mondin 2019: 155). This finding further supports the idea that F4081 might not have been conceived as a preparation layer as several cuts had impacted it.

The features that lay below the level of F4081 presented disparate characteristics. F4085 was a deposit characterised by a reddish colour resulting from the inclusion of poorly preserved fragmented fired bricks; F4086 was a soil deposit that included a high quantity of slag (27.3 kg) and what seemed to be dusty slag which conferred on it a greyish colour; and F4088 was a soil deposit with a high number of fired bricks, mostly broken or fragmented.

The material culture from these three distinct layers was less varied than the previous ones. F4085 included pottery sherds, diagnostic and non-diagnostic glass shards, painted plaster fragments, a few small faience fragments, animal bones, shells, and various chunks of slag (13.45 kg). F4086 yielded pottery sherds, fragments of painted plaster, a fragment of a granite grinding stone (KAO 106), animal bones, and slag. In addition to the fired bricks, F4088 contained pottery sherds, diagnostic and non-diagnostic glass shards, two painted plaster fragments, one fragment of moulded plaster, small fragments of faience, one iron nail, animal bones, shell, and slag (800 g). Compared with the quantity of finds from the other layers, fewer pottery remains were recovered from these layers.

When Room B's excavation was being undertaken, the depth reached by the walls and the understanding of the levels above and below walking surface F4074 were still preliminary.

The last layers to be excavated within the boundaries set by the walls of Room B were F4100 and F4101. In contrast to F4088, F4100 included fragmented mudbricks instead of fired bricks. The colour was brown, and the fragmented mudbricks rendered it of slightly hard compaction despite the silty texture. F4100 had a lesser quantity of finds compared to other layers: pottery sherds, four shards of non-diagnostic glass, six fragments of painted plaster, one fragment of plaster with tiny inclusions, four iron nails, one stone (possibly calcarenite) bead (KAO 66), animal bones, shells, slag (350 g), and two fragments of rhizoconcretion. F4101 also had a different appearance, with dark greyish brown colouring and dusty white inclusions. It also differed from the previous layer in pottery quantity, which was more abundant. The finds also included diagnostic and non-diagnostic glass shards, one glass bead (b1212), painted plaster fragments, one faience fragment, three fragments of worked stone, five iron nails, two fragments of distinct copper alloy objects (KAO 202 and 203), animal bones, shells, slag (9.45 kg), and one bronze coin (KAC 243) dating to the 4th century CE.

Room B's latest recorded phase of use occurred during the first half of the 5th century CE, according to the pottery and coin dating), whereas the layers within the room yielded pottery dating to the 3rd and 4th centuries CE (C. Mondin 2020, personal communication, 28 March). This contrasts

with the dating evidence provided by the coins, as six of the coins retrieved from within Room B dated to the 2nd century CE; these coins were from features F4069, F4072, F4075, and F4081, both above and below the walking surface's level. Nevertheless, the features that contained 2nd century CE coins also included later coins of the 4th and 5th centuries CE; the sole exception was F4081, which contained only 2nd century, and even 1st-2nd centuries, coins. KAC 243 was retrieved from F4101, and it dated to the 4th century CE; as such, it is more probable that the 2nd-century coins may represent reuses. In addition, the fragmented Spindle-shaped amphora from the cut within F4081 (under Room B) could be linked to the Roman Room as it is the same type of amphorae contained in the pits inside the room.

Wall F4061 was the only wall exposed in Room B. It did not exhibit any offsets, like the internal walls of Room A (Figure 236). The excavation exposed the wall for 2.20 m of preserved height.

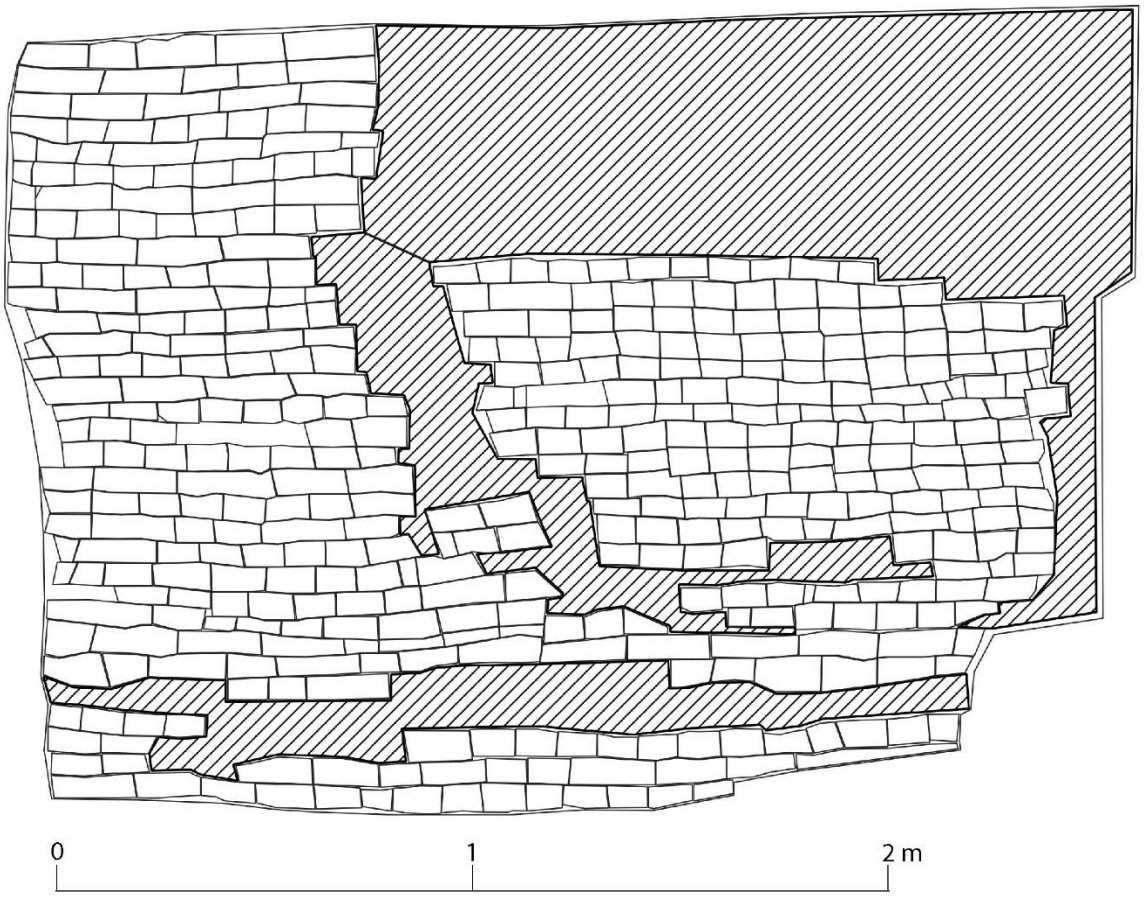


Figure 236 Profile drawing of wall F4061 (Room B).

Room C

The Late Roman Room C

The room was covered by the superficial deposit F4008 and partially by F4013. Its investigation began more in-depth during the excavation of the robbed foundation trench soil fills F4126 (F4126 SL001, F4126 SL002, F4126 SL003, and F4126 SL006), which cut through the room from south to north (the excavation of these specific features is discussed in Section *3.3.7 – The robbed* foundation trench). Layer F4126 SL006 was most probably part of the room's deposits; however, since it was excavated separately during the investigation of the robbed foundation trench, it is assessed together.

Since the remains had been truncated by the robbed foundation trench F4126 and the subsequent excavation of its fill, the room presented deposits on its eastern and western sides. Eleven soil deposits were identified (F4215, F4219, F4221, F4222, F4224, F4225, F4226, F4227, and F4228), one cut (F4218) filled by a soil deposit (F4216). Two of the deposits had harder compaction than the others, which led to considering whether they could have constituted beaten earth surfaces (F4217 and F4220).

F4215 was the first deposit to be excavated, and it was identified on both sides of the room. It was a silty deposit with a light greyish brown colour and crushable compaction. It was thicker on the southern side of the room (up to 30 cm) and thinner on the northern side (between 5 and 10 cm). It contained a variety of finds: pottery sherds, two fragments of distinct lamps (b2175), diagnostic and non-diagnostic glass shards, one fragment of the base of a faience container (b2101), three iron nails, painted plaster fragments, two stone pebbles (b2179 and b2180) and one pottery sherd with rounded edges (b2177), similar to the stone pebbles, a fragment of a possible pendant in wood (b2096), one small and elongated copper alloy fragment, one fragment of an iron object, two fragments of marble (one worked), one worked fragment of limestone, animal bones, shells, slag (almost 13 kg), and two bronze coins (b2105 and b2178, which dated to 281-282 CE and the 3rd-2nd centuries BCE respectively). Fired bricks, fragments of unpainted plaster, and a few small limestone cobbles were also noted.

The abovementioned deposit lay over a harder layer, F4217. Its elevation coincided with the appearance of an offset on the southern part of wall F4032 (the room's eastern wall). The elevation of this layer did not match that of the beaten earth surface in Room B, and it was also noted that its continuation on the western side of the room was of a more crushable consistency; as such, it is debatable whether it had been a walking surface or merely a less compact depositional layer. Its thickness was also similar to that of F4215, though it increased in the northern part of the room. The material culture from this feature was similar to that of soil deposit F4215: pottery sherds, one lamp fragment (b2359), a few non-diagnostic glass shards, painted plaster fragments, a few small fragments of faience, one iron nail, a stone pebble (b2189), similar to those found in F4215, animal bones, shells, and slag (3.55 kg). Fragmented fired bricks and unpainted plaster were also included.

An elongated pit had cut into F4217 on the eastern side. The cut ran adjacent to the wall, but it had not compromised it. The maximum depth of the pit was 21 cm. The materials contained in the pit were pottery sherds, painted plaster fragments, animal bones, shells, slag, fragmented fired bricks, and plaster fragments.

F4219's matrix was yellowish-brown and had harder compaction, possibly due to fragmented mudbricks; it had an average thickness of about 35 cm and the same typologies of finds as the previous features, although the quantity increased. The continuation of the offset of wall F4032 was exposed while removing this layer. The finds were pottery sherds, diagnostic and non-diagnostic glass shards, one fragment of glass bracelet (b2192), six iron nails, a fragment of a bone hairpin (b2191), one lamp fragment (b2187), a fragment of copper alloy object (possibly a tool) (b2193), faience fragments, painted plaster fragments, iron fragments, fragments of worked stone (b2188 and b2202), one fragment of a fired brick tile (b2260) one rhizoconcretion, animal bones, shells, and slag (6.54 kg). There were also four bronze coins: one dated to 126-127 CE (b2131), whereas the other three exhibited contemporaneous dating to 283-284 CE (b2194), 286-287 CE (b2195), and post 283 CE (b2200).

One possible beaten-earth floor (F4220) was encountered almost at the same elevation as the base of the robbed foundation trench F4126. The soil had inclusions of fragmented mudbricks and fragmented plaster, fired bricks, and charcoal spots. It did not homogeneously extend towards the walls, it tilted towards the east, and the robbed foundation trench truncated it. It had an average thickness of 4.5 cm, and its eastern side had been partially cut by F4223, a small curvilinear cut that had been affected by the robbed foundation trench. The material culture included pottery sherds, diagnostic and non-diagnostic glass shards, twelve iron nails, the remains of an iron ring (b2365), fragments of painted plaster fragments, faience, iron, one fragment of worked limestone, animal bones, shells, and slag (7.5 kg). Three worked stones (limestone and one fragment of marble slab) were found lying over the western side of F4220; however, due to the material's paucity, it does not seem that the stone would have been used for paving.

Two additional deposits were encountered on the western side of the room, over F4220; they had not been identified on the eastern side, F4224 and F4225. F4224 lay in the southwestern corner of the room under F4219 and over F4225. It also had a yellowish-brown colouring but lacked the fragmented mudbrick inclusions. Pottery sherds, a few diagnostic and non-diagnostic glass shards, one iron nail, one iron fragment, one fragment of faience, one fragment of painted plaster, animal bones, shells, and 0.5 kg of slag were recovered from this feature. F4225 had a darker greyish brown colour and crushable compaction. It lay directly over the possible walking surface F4220. The typology of finds increased in comparison to F4224: pottery sherds, one lamp fragment (b2510), non-diagnostic glass shards, one glass bracelet fragment (b2223), seven iron nails and other iron fragments, a fragment of a copper alloy object (b2222), one small stone object similar to those found in F4215 and F4217

(b2231), painted plaster fragments, faience fragments, animal bones, shells, and slag (7.65 kg). This layer yielded stone remains: worked limestone (b2220, b2225, b2233, and b2234) and a fragment of marble slab, possibly pavonazzetto marble (b2232). One bronze coin dating to 49-51 CE (b2221) was also retrieved.

The level below F4220 was initially investigated with a sondage trench —like Room B—. F4220 was divided from another beaten earth surface (F4229) by five soil deposits: F4221 and F4220, identified in the eastern part of the room, and F4226, F4227, and F4228, that extended throughout the room.

F4221 exhibited a light greyish brown colour and silty texture that differed from F4220. The quantity of finds increased regarding that recovered in F4220, even though it had a limited extension within the room. The finds ranged from pottery sherds, one lamp fragment (b2160), diagnostic and non-diagnostic glass shards, two fragments of terracotta figurines (b2227 and b2228), two iron nails, painted plaster fragments, two copper alloy objects (b2159 and b2161), copper alloy and iron fragments, two fragments of worked limestone, one rhizoconcretion, and slag (5.3 kg). On the other hand, F4222 has a darker greyish brown colour and several inclusions of fragmented fired bricks and charcoal visible on its surface. The typology of finds was like that of F4221, including another fragment of a terracotta figurine (b2229), three rhizoconcretions, slag (2.65 kg), and one bronze coin (b2171) that could date either to the 3rd-1st century BCE or the 1st-2nd century CE. The cut F4223 had impacted both deposits.

The two deposits, F4226 and F4227, had similar characteristics (medium brown colour, silty texture, slightly hard compaction due to the presence of fragmented mudbricks) but differed due to the contents: a higher quantity of charcoal fragments and iron nails (40 vs 3) within F4226 and a higher amount of painted plaster fragments in F4227 (150 vs 31). Both layers contained pottery sherds, one lamp fragment (b2367, from F4227), diagnostic and non-diagnostic glass shards, one faience fragment, a small stone object (b2258), iron and copper alloy fragments, worked limestone fragments, animal bones, shells, slag (6.5 kg and 14.5 kg respectively), two rhizoconcretions, and one bronze coin dating back to 134-135 CE (b2625). The removal of F4227 exhibited an offset on the room's southern wall.

F4228 was distinct due to its thickness, which reached almost 50 cm in the room's eastern part. It contained a wide variety and quantity of material culture, including inclusions of fragmented mud and fired bricks, plaster, limestone, and charcoal: pottery sherds, fragments of different lamps (b2369, b2371, and b2658), diagnostic and non-diagnostic glass shards, faience fragments, among which were those of a cup (b2379), two fragments of terracotta figurines (b2657 and b2383), 13 iron nails, painted plaster fragments, fragments of worked stone, among which was one of marble, three flat stone pebbles (b2374), a fragment of a flat pierced copper alloy object (b2370), animal bones, shells, slag (2.3 kg), and two bronze coins dating to different periods (b2372, to the 2nd-1st centuries BCE, and b2377, dating to 291-292 CE).

F4228 lay over the beaten earth surface F4229. This surface had the same dark yellowish-brown colour. The typology and quantity of finds were also alike: pottery sherds, a few non-diagnostic glass shards, nine iron nails, one painted plaster fragment, copper alloy fragments, and one small round worked stone (b2396), animal bones, shells, and slag (900 g).

F4242, the fill of the foundation trench F4243, contained no specifically dateable material. The variety of finds resembled the usual types recovered from the other contexts and included painted plaster, diagnostic and non-diagnostic glass shards, faience fragments, copper alloy and iron fragments, iron nails, worked stone, one tear-shaped flat stone pebble – b2389 – animal bones, shells, and slag.

The context below Room C

The investigation of this earlier room will not be described in detail as its study goes beyond this research scope. The features that yielded ceramic material culture dating to the 1st century CE were F4285, F4290, F4291, F4295, and F4299. The coin finds (all in bronze) from the context below Room C did not provide further details: two coins dated to the 3rd-2nd centuries BCE (b2564 and b2612) and two coins dated to the 4th-5th centuries CE (b2591 and b2613). The coin that provided the most accurate dating was b2354 (157-158 CE), but it is unclear whether two (b2333 and b2590) date to the 3rd-1st centuries BCE or the 3rd century CE. Coins b2612 and b2163 were retrieved from the same deposit, whereas b2590 and b2591 were retrieved from another deposit.

The excavation of the Roman room identified different utilisations of the internal space: the latest use included the remains of a possible mud oven, and it was preceded by a phase characterised by a series of six pits that had been dug within the room and filled with the upper part of AE3 Spindle-shaped amphorae placed right-side up. The six pits had been dug into a mud floor (F4253) that lay over fragments of marble slabs. The largest slab —60 cm in length and almost 30 cm in width— leads to suppose that the marble fragments were the remains of an earlier floor (F4254) impacted by the digging of the pits and the room's change of use.

The Roman room phases recall those of the Third Building in terms of constant use that led to layers' deposition.

The deposits alternated between extensive layers filled with fragmented mudbricks, a few fragments of material culture and soil deposits impacted by the pits. The largest pit uncovered was F4268, which extended throughout most of the area visible within the boundaries of room C's western wall (F4061) and the lower wall F4233. The pit approached wall F4233 but did not damage it. It contained the remains of burnt material, including slag and a layer of ash and a high quantity of

fragmented pottery, some of whose sherds presented signs of burning. Smaller pits were detected at other levels, two of which contained animal bone remains (F4271 and F4274). These pits were not considered burials but rather waste disposal due to the absence of most of the skeletons.

Compared to the features identified within the Roman Room and Room C, most deposits of this outside context yielded a lower quantity of finds. Layer F4240 was the feature that contained most pottery finds in terms of quantity. It could also be observed that wall F4233 lay over this layer of soil intermixed with pot sherds. F4240 represents a pottery fill incorporated in the south part (of the so far exposed) wall F4233's outer façade. Since it was located solely in that area and was not detected inside the room, it could have been a reparation for the wall, possibly to stabilise part of it; indeed, F4240 was lying over what seemed to be an offset of the wall, if not an external skirting.

The investigation considered the likelihood that features found outside the Roman Room probably related to those found below Room B. Though some layers under Room B bore distinctive characteristics (reddish colour, or a high number of fired brick inclusions, for instance), the same layers were not detected under Room C (Figure 237). Some of the deposits and cuts bear similarities in appearance and elevation; the study of the pottery might shed some light on the interpretations made so far.

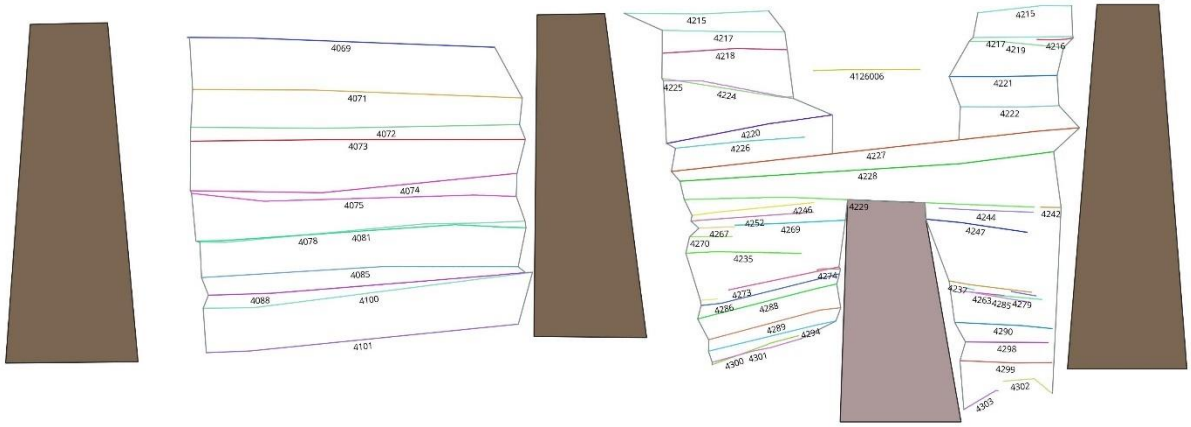


Figure 237 Profile view (facing northwest) of the internal stratography of Rooms B (left) and Room C (right).

The lack of knowledge on the dimensions of the Roman Room, and the structure as a whole, poses an obstacle to making a more exhaustive comparison with the Late Roman house. It cannot presently be said how large the Roman structure was if the size could be comparable to that of the house, whether it also had a square plan, if it pertained to the same 'building block', and if the street plan coincided with the later one. What is clear is that the placement of the Roman Room does not coincide with that of the Late Roman house. The preliminary plan of the sector where the house was located shows congruency between the placement of the house and the other buildings, which appear to be organised in 'blocks' of buildings divided by streets, most possibly beaten earth streets.

The Roman Room, much like the rooms of the amphorae storage building, preserved material culture in situ over a floor surface, unlike the rooms of the Late Roman house, where the floor layers had either already been stripped or were almost void of in situ finds. Contrary to the amphorae storage building, whose evidence so far seems to relate entirely to the re-use of amphorae, the fragmentary remains of the Roman Room indicated different activities undertaken in the enclosed space. The activities were the following, listed in chronological order with earliest actions first: possible marble paving (1); mud flooring (2); placement of six pits into which the upper part of AE3 Spindle-shaped amphorae was placed right-side-up, one per each pit (3); the room was then filled with a soil layer, with inclusions of vegetal remains such as hay/straw, that covers the pits but not the rims and necks of the amphorae (4); the mud oven was placed at the northwestern corner of the room (5); the mud oven falls out of use and the space, delimited to the south by a course of mudbricks, is occupied by accumulated waste, namely fragmented pottery and burnt remains; the room was filled with a deposit mixed with fragmented mudbricks, possibly related to the levelling of the building (6).

Southern addition

The area between the southern walls of the Late Roman house and the third building was investigated to verify the relationship between the house's structure and that of the third building.

The first layers to be removed were lying towards the east and surrounding the third building's northeastern corner. They had been cut by the robbed foundation trench F4126 both on the east and south sides. F4149 lay partially above the remains of the northeastern corner of the third building and F4210, the addition to F4063. Its position above the walls and below deposits F4146 and F4148, which were linked to the hearth in the southeastern courtyard, may represent the phase between the disuse of the southern additions and the third building. F4149 was brown, with a silty texture and hard compaction; the main difference from the previous deposit (F4148) was an evident decrease in the number of pottery sherds. One bronze tetradrachm was retrieved from this feature; coin b1679 dated to 281-282 CE, to the reign of Probus. Diagnostic and non-diagnostic glass shards and animal bones were the only other categories of material culture retrieved from this deposit. F4150 lay below F4149; this other deposit was very similar to the previous aside from two characteristics: it did not lie above the surface of the third building’s corner nor of F4063/F4210 but solely by the side of the latter, and it had a light brown colour.

Layer F4151 was identified next. It occupied the same position between the third building, including the eastern and the house’s southern side, but did not extend much further to the west. It had similar characteristics to those of the previous layers aside from a more medium brown colour; the variety of material culture also increased with finding a faience bead (b1695) and a fragment of glass

bracelet (b1818). This deposit's western side was partially covered by F4152, which distinguished itself visually by its slightly reddish colour. It lay between the northern wall of the third building and a smaller wall, F4200, uncovered south of the house following the removal of F4151. It did not extend toward east or west. There was a bronze coin among this deposit's findings (which consisted of pottery sherds, animal bones, and shells): coin b1697 dated to 282-283 CE.

Small room H2 was enclosed by an east-west running, small wall F4200 that bonded at a 90-degree corner with another small wall, F4201, that ran south to north and abutted the southern wall of the Late Roman house. The remains of both small walls are constituted by a combination of mud and fired bricks, although the mudbricks were prevalent; both walls have two rows and two to three brick courses —the small walls slope towards the west.

The remains of a hearth were identified within the limits of the small room H2; they were termed F4153, and they consisted of a pit filled with an accumulation of a mix between ash, charcoal, and soil of pinkish-red and black colour. The pit had an oval shape, 60 cm long and 50 cm wide. It was lined on its southwestern side by five fired bricks, all on the same course; the fired bricks' average dimensions that could be measured were >12 x 11 x 6 cm. The lining had a thickness of 20 cm. The remains of the pit were approximately 8 cm deep. No artefacts were encountered aside from some pottery sherds.

The hearth pit had been dug into soil deposit F4154, a layer with a maximum thickness of 10 cm and a hard and silty matrix. This soil deposit F4154 did not extend beyond the limits of the walls of H2. Few finds were retrieved (pottery sherds, animal bones, shells, and one diagnostic glass shard). The removal of this layer uncovered mudbrick remains in the northeastern corner of the small room, but it was not sufficiently investigated to understand its purpose. The excavation continued with the digging of F4155, found below F4154. This deposit extended within the two small rooms' space up to the northern façade of the third building. The characteristics of this soil deposit were like those of other deposits from this area (medium brown colour, silty texture, and crushable compaction); however, the quantity of finds increased and varied: pottery sherds, diagnostic and non-diagnostic glass shards, five fragments of glass bracelets, one fragment of a possible bone hairpin, three iron nails, copper alloy and iron fragments, faience fragments, animal bones, shells, slag, and four copper alloy coins. Coin b2011 dated to 72-73 CE, coin b2005(1) to 278-279 CE, and coin b2005(2) to 315 CE; the fourth coin, b2005(3), was retrieved in three fragments and was dated to the 5th century CE.

The removal of this deposit brought to light the western wall F4201, which joins with wall F4200 and the westernmost small room walls. It also exposed the remains of a small eastern room, termed H1; like the small room H2, this space is enclosed to the north by wall F4060, whereas wall F4059 delimits it to the south, and wall F4199 to the west. Walls F4059 and F4199 bonded together at

a right angle, the former having a south-north orientation and the latter an east-west orientation. Wall F4059 abuts wall F4060. Two courses of mudbricks constituted the remains of both small walls.

The remains of this addition allow us to observe that it abutted F4063 (Figure 239). It supposedly had the same proportions as F4063; however, it was impacted by the robbed foundation trench F4126 on its eastern side; thus, it is not possible to know if its intended length would have matched that of F4063 and the eventual relation it had with the walls of the storage bin room H3. The mudbricks' size was the same as those of F4063. F4210 seems to have been an extension of F4063 serving the purpose of a mastaba or step adjacent to the external wall (Figure 238). The fact that F4063 visually appears as an addition to the square plan of the house triggers several ideas about its function and purpose. It could be observed that the base of F4063 had not been reached during the excavation of the storage bin H3 (Figure 239).



Figure 238 View of the eastern profile of F4210; the mudbrick addition lies over a reddish layer.



Figure 239 Part of F4063 (in the yellow rectangle) abutting the Late Roman House's southern wall.

H3 was built prior to H4 as the semi-circular wall of H4 (F4203) abutted the house's walls and the eastern wall (F4205) of storage bin H3. Wall F4203 also seemed to have provided a boundary for H4. The semi-circular room H4 was filled with deposit F4182, characterised by hard compaction; the colour was grey. It presented inclusions of charcoal and organic materials, possibly remains of hay, among the findings (pottery sherds, diagnostic and non-diagnostic glass shards, slag, animal bones and shells, and an iron ring (b1876), possibly for a tool. The removal of F4182 exposed the presence of a grouping of fired bricks (four) in the northwestern corner; two fired bricks in the southwestern corner, and a fixture (F4209) in mudbrick with an L-shape, constituted by two rows of mudbricks, one row running east-west and one row running north-south.

The following layer to be identified was soil deposit F4196, which extended uniformly within the enclosed space. This layer was more crushable and included a small variety of finds, including a fragment of a glass bracelet (b1991). Its removal exposed the presence of the remains of a hearth partially delimited by the L-shaped fixture F4209: a dark patch of charcoal (F4197) of irregular shape extending west to east, with charred wood remains lining the fired bricks (see Figure 240 and Figure *241*). Only pottery sherds and animal bones were collected from this layer.



Figure 240 Remains of charred wood lining the mudbrick fixture F4209 within the small room H4.



Figure 241 Exposure of burnt remains within the small room H4.

The mudbricks of F4209 abutted wall F4205 and lay on the same deposit F4198(=F4202) as walls F4203 and F4205 (Figure 242). The deposit F4198=F4202 can be seen against the house's walls (Figure 243); this confirms that the small rooms H3 and H4 and the fixture F4209 related to the hearth had been built contemporaneously. The semi-circular shape of H4 recalls that of mud ovens. F4198 contained few material culture: pottery sherds, diagnostic and non-diagnostic glass shards, animal bones, slag (30.40 g), two copper alloy coins (b2024 dating to 321 CE and b2028 dating to 290-291 CE), and a few inclusions of limestone pebbles.



Figure 242 View of the oven H4: the reddish deposit F4198=F4202 is visible below the walls.



Figure 243 View of wall F4031 (to the left) abutted by wall F4203 (to the right).

The small rectangular room H3 lay south of Room C, and it is constituted by three small walls (F4205, F4206, and F4207) that abut the house's southern wall, F4031. The robbed foundation trench F4126 had partially truncated H3. The eastern part, which had not been affected by the robbed foundation trench, was covered with two courses of mudbricks (F4183) that lay over soil deposit F4195 that filled the entire small room. The mudbricks of F4183 constituted a later reutilisation of this space when the room was filled with soil and mudbricks. The soil deposit F4195 contained a few fragments of material culture (pottery sherds, diagnostic glass shards, animal bones, a fragment of an iron nail, and the remains of a copper alloy object) and some inclusions of building materials such as fired bricks and limestone pebbles.

The following soil feature identified was the layer on top of which three of the walls delimiting small room H1 lay. F4202=(F4198) was yellowish-brown in colour, silty, and crushable compaction. It had only a few inclusions of material culture: pottery sherds, animal bones, and one worked stone object that resembles a *tessera*, inclusions of charcoal, fired brick fragments, and small limestone flakes.

The remains of a circular hearth (F4204) lined with two courses of fired bricks were exposed after the excavation of F4202(=F4198). The hearth was 0.85 m in length and 0.80 m in width; the fired bricks' average dimensions were 22 x 11 x 6 cm. This hearth was used prior to the creation of the small rooms. Just south of it, on the base of the robbed foundation trench F4126, there was a patch of reddish loose soil, like F4127, which was associated with the hearth F4132.

The space between the wall F4063/4210 and the northern wall of the third building is between 70 and 80 cm, whereas the spaces between the small walls F4059 and F4200 and F4058, which is the northern wall of the third building, are 0.77 m and 0.55 m respectively.

Eastern addition

Introduction

The eastern addition had been observed since the laying out of Unit 4, as the walls were visible on the ground surface like the house's main walls. The relationship between the eastern walls and the house could be verified with certainty following the investigation of the unit's southeastern quadrant: the addition's walls abut the eastern wall of the house. The excavation of the robbed foundation trench F4126 shed light on the architectural relation of this addition's wall components. Walls F4027 and F4030 were initially observed as different walls of the same structure but were separated by a possible entryway. Following the investigation of the robbed foundation trench F4126, it can be argued that they could be the same wall and that a portion had been extracted during the trench's construction.

Room D

Room D is one of the rooms delimited by the walls of the eastern additions. It is located adjacent to the eastern wall of the house, east of Room C; it was delimited to the north by wall F4033, east by wall F4029, and to the west by the house's wall F4032. The excavation revealed a series of layers which included soil deposits, a linear cut, and a possible walking surface. The investigation confirmed that most of the features identified within the boundaries set by the wall of the room pertained to an earlier phase of use than that of the room and the eastern addition. The room was not investigated entirely; only the northern half was excavated.

The first deposit to be removed was F4117, which presented a light brown colour and was of crushable compaction with patches of harder light greyish brown soil (possibly mudbrick inclusions). The removal of this layer revealed the lowest courses of walls F4029 and F4033, which demonstrated that the walls were built after the house's construction (Figure 244). The western side of wall F4033 abuts wall F4032, thus confirming the architectural phases.



Figure 244 View of Room D before excavation (top left); the exterior side of wall F4032 (top right); profile view of wall F4033 (lower left); part of wall F4029 (lower right).

The following deposit was F4119, which presented a darker brown colour and a clayey texture; this layer was eventually linked with F4131. F4120, which lay beneath it, had similar characteristics and harder compaction. F4120 was related to F4194 and was a walking surface detected in the rest of the area occupied by the western addition; the walking surface was earlier than the construction of the eastern addition. F4120 was impacted by an elongated cut (F4121) that ran parallel to wall F4032. The cut was 2.3 m in length, a maximum width of 0.20 m, and a depth of 0.10 m within the excavated area (but it continued beyond that?); the soil fill (F4121 SL001) had a light greyish brown colour; it was loose, and did not contain a single specimen of material culture. It was not clear if the cut had a specific purpose or whether it was related to wall F4032 or the use of the space outside the house.

The last feature to be excavated was F4122, which was eventually recognised as the continuation of F4137. The matrix of the layer was more crushable than the previous ones and much thicker, reaching up to 30 cm of thickness. It also presented the remains of a patch of ash over the eastern part of its surface.

The material culture from this area consisted of pottery sherds, animal bones, shells, diagnostic and non-diagnostic glass shards, five iron nails, slag, three worked bone fragments (b1355 and b1358), specimens of charred twigs, copper alloy and iron fragments, fragments of painted plaster (mostly from F4122), and one bronze coin (b1356), dating to 296-297 CE. The excavated features yielded the same typologies of artefacts. These artefacts are not related to the use of the room but the previous utilisation phase of the area.

The Southern Courtyard

The area west of Room F and south of rooms C and D had been delimited to the west and south by the robbed foundation trench F4126; the dimensions of this space were approximately 3.50 x 3 m. Its appearance at the time of first exposure was characterised by the presence of a circular hearth (almost 1 m in diameter) lined with fired bricks; the nearby soil deposits were linked to its use as they exhibited a reddish colouring (F4127) and a layer of charcoal mixed with ashes (F4132). The robbed foundation trench F4126 had cut both soil features, and a part of F4127 was visible south of the trench. Another soil feature that might have been related to the hearth was F4146, which was located immediately west of the robbed foundation trench F4126, lying over the remains of the northeastern corner of the third building; this deposit was a compact light brown and reddish-brown soil layer with numerous sherds of pottery visible on its surface. The finds also included fragments of charred twigs, slag, animal bones and shell, one bronze coin, b1671, dating to the end of the 4th and the beginning of the 5th century CE, and shards of diagnostic and non-diagnostic glass. Aside from the twigs and some pottery sherds, the other findings did not exhibit signs of burning. The layer immediately below was F4148, which did not bear signs of burning and instead had a greyish brown colour. The findings included pottery sherds, an intact glass ring (b1678), a fragment of glass bracelet (b1681), one bronze coin (b1674) dating to the 5th century CE, shards of diagnostic and non-diagnostic glass, animal bones, and fragments of copper alloy. Both soil deposits extended towards north and partially covered F4210, the addition to F4063. They relate to Subphase 4 of the use of the house.

The deposit F4127 was ashy and loose, and it was comprised of several thin layers that included patches of charcoal. It had a maximum extension of almost 3 m (including the part towards south that was cut by the robbed foundation trench) and a maximum width of 1.50 m; only the part enclosed within the robbed foundation trench was dug, and it had a maximum thickness of 25 cm. The excavation of F4127 also yielded a variety of finds: the remains of a terracotta figurine b1869 (possibly representing a dog), one copper alloy ring (KAO 174), one glass bead (b1856), one glass pendant (b1863), pottery sherds, diagnostic glass shards, one iron nail, animal bones, and slag. Seven copper alloy coins were also retrieved: b1855, a tetradrachm dating to 293-294, to the reign of Maximian; b1857, dated to 335-347 CE; b1851, dating to 388-403 CE; b1453, dating to the 4th century CE; b1451, dating to the 4th-early 5th centuries CE; b1455, dating to the end of the 4th-early 5th centuries CE; and b1452, dating to the 5th century CE.

F4132 was the ashy deposit mixed with charcoal and light brown soil enclosed within the remains of the lining of fired bricks. Its excavation revealed that it filled an oval-shaped pit F4181 that cut into the lower strata. The pit's dimensions were 55 cm in length, 38 cm in width, and a maximum of 25 cm in depth. All sides were sloping, and the pit's base measured 36.5 cm in length and 31 cm in width. The finds within the deposit F4132 included one copper alloy coin (b1870), dated to the 1st-2nd

centuries CE, an elongated copper alloy object (b1871), pottery sherds (some of which had traces of burning), animal bones, shells, and slag. The hearth remains suggest that the area was used concerning it, and the deposit F4127 gives evidence for extensive use of the hearth when considering its extension and thickness.

The layer immediately north of the hearth remains of F4127 and F4132 was F4129; it did not bear signs of burning aside from a few thin patches of charcoal; it had a light greyish brown colour, and the matrix was of crushable compaction. Pottery sherds were visible on its surface. In addition to ceramic finds, there were also diagnostic and non-diagnostic glass shards, four fragments of hairpins made of bone (b1824, b1827, b1828, and b1831), two glass beads (b1844 was intact, whereas b1849 was only half), one fragment of glass bracelet (b1845), one iron ring two iron nails, slag, animal bones and shells. There were also two copper alloy coins: b1355, dating to 296-297 CE (emperor Maximian), and b1820, dating to the 1st century CE. The variety of finds, especially of more personal use, suggest an area often used for activities, and the hearth points towards food preparation.

The investigation of this area also saw the last remains of wall F4029, which no longer represented a delimiter of space. The following layers represent a phase of activity prior to establishing the eastern addition structure. Deposit F4180 was identified where the remains of wall F4029 had laid; it was a thin soil deposit whose dimensions were similar to those of the wall, which led to assuming that it could represent a preparation layer. No finds were retrieved from this layer.

The use of space before the construction of the eastern annexe

The hearth F4132 and F4127 were above the beaten earth surface F4179, constituted by fragmented mudbricks. This surface continued east as F4186, but it was physically divided from F4179 by a course of mudbricks (wall F4185) that lay within the limits of wall F4209, but the lowest levels of its preserved remains had been entirely scraped away. Wall F4185 was constituted by one course of mudbricks which alternated between headers and stretchers. It lay over a layer of brown silt, F4192, whose shape followed the wall's orientation, thus indicating a possible relationship with the wall similar to wall F4029 and deposit F4180. Nonetheless, F4192 was thicker (average thickness of 8 cm) and yielded pottery sherds, non-diagnostic-glass shards, one copper alloy fragment, and animal bones.

Another hearth had impacted the beaten earth surface F4179 on its northwestern side. The hearth had been truncated by the robbed foundation trench 4126 and, therefore, less than half was preserved. This hearth was made up of a pit (F4188) filled by an ashy loose deposit (F4184) displaying various reddish-brown, yellowish-brown, and black colourations. The pit's remains measured 48 cm in length, 27 cm in width, and 12 cm deep. The sides were sloped. The finds within the fill F4184 were

charcoal, specimens of charred wood, and pottery sherds. The finds retrieved from the excavation of F4179 were pottery sherds, diagnostic glass shards, and animal bones.

F4178 was a light greyish brown deposit rendered hard by fragmented mudbricks within it. It was identified below the remains of wall F4029 and deposit F4129. It covered the remains of the semi-circular wall F4203, which enclosed the remains of the mudbrick oven H4. The findings included pottery sherds, diagnostic and non-diagnostic glass shards, one fragment of glass bracelet (b1842), one iron nail, a possible copper alloy bezel of a ring (b1835), animal bones, shells, and slag.

Layer F4187 was identified below F4179; it was thin (average thickness: 3.5 cm), of light brown colour and hard compaction and sandy texture. The surface had several fragments of pottery sherds. The feature had been cut by the hearth pits F4181 and F4188, although the latter only did so superficially. The finds included pottery sherds, diagnostic and non-diagnostic glass shards, one fragment of glass bracelet (b1900), one fragment of faience, animal bones, and shells.

The following layer was F4190, also cut by the pit F4181. F4190 exhibited a large charcoal patch of irregular shape in the southeastern corner. The patch was a few millimetres thin, and the robbed foundation trench F4126 cut it. It is unclear if it was associated with a hearth as there were no remains nearby (unless they were removed with the digging of the robbed foundation trench F4126) or whether charcoal had been thrown over a surface. The hard compaction of F4190 also suggests that it could have functioned as a beaten earth surface. The finds within it were pottery sherds, diagnostic and non-diagnostic glass shards, one fragment of glass bracelet (b1916), two fragments of worked bone (b1917 and b1919), fragments of a copper alloy object (b1918), one iron nail, animal bones, shells, and slag.

The situation was different in the context enclosed (on the surface) by the eastern addition walls. The area seemed to have undergone erosion, which removed the upper layers' central part and exposed the lower ones. For instance, F4137 was visible in the centre of Room E, and it appeared as the fill of a pit truncated by the robbed foundation trench F4126 (see Figure 245). The excavation revealed that F4137 is a soil layer, and the continuation of F4122 —identified in the sondage trench within Room D—. The explanation for this may have depended on the use of the rooms: the beaten earth surfaces in rooms and streets are cleaned by sweeping dust to the sides, which gradually accumulates against the walls and slopes towards the centre.

The context within the eastern addition limits was partially investigated since the robbed foundation trench F4126 cut through it, and the western side was excavated due to its proximity to the house and physical relationship with the nearby features. The decision to excavate also depended upon time management during the field season.

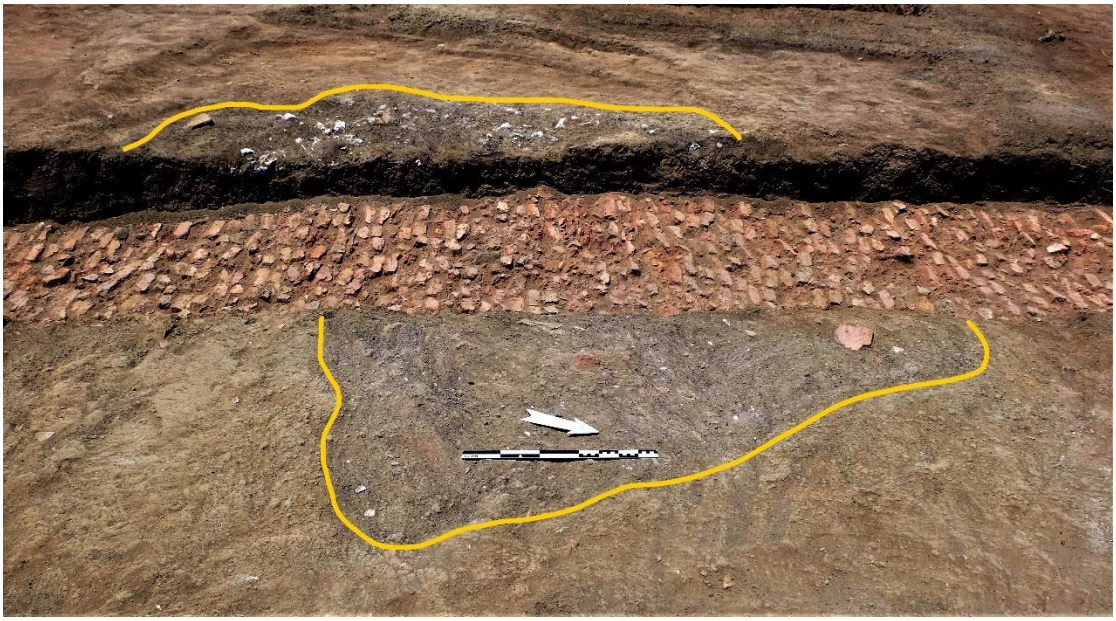


Figure 245 F4137, in grey, visible on the surface and truncated by the robbed foundation trench F4126.

F4137 retained the same characteristics as F4122, aside from the presence of ash on its surface. The finds retrieved were pottery sherds, diagnostic and non-diagnostic glass shards, one fragment of a worked stone object (b1931), one cowrie shell, other shells, animal bones, slag, and fragmented building materials such as worked limestone, fired bricks (among which were two fired bricks with a coating of mortar), painted plaster, and mortar.

F4193 was detected beneath F4190. This deposit was linked with F4117, which had first been detected within Room D. It was one of the partially missed layers in the central area enclosed by the eastern addition's Room E and Room F.

F4131 lay below F4193 and was partially visible before its full exposure due to the ground erosion. The deposit is related to F4119 from the excavation of the sondage within Room D. This soil deposit yielded a wide variety of material culture: pottery sherds, lamp fragments (b1934), diagnostic and non-diagnostic glass shards, two fragments of worked wood (b1957), three fragments of glass bracelets (b1958), one copper alloy ring (b1959), a fragment of worked bone, possibly a hairpin (b1937), three iron nails, animal bones, shell, slag, and three bronze coins. Coin b1921, a tetradrachm dating to 285-286 CE (emperor Diocletian), b1954, dating to the 4th century CE, b1960, another tetradrachm dating to 292-293 CE (also emperor Diocletian).

F4191 was identified following the removal of F4131. It was a medium brown silty and crushable deposit that contained a high amount of material culture. It is plausible that the quantity and variety of finds may have been related to the walking surface (F4194) detected below this layer. The finds included: pottery sherds, diagnostic and non-diagnostic glass shards, two fragments of glass bracelet (b1967 and b1982), and six fragments of worked bone, five of which may pertain to hairpins (b1972, b1973, b1980, b1983, and b1986) and one to fixture decoration (b1975), one fragment of a

lamp (b1978), two iron nails, fragments of iron and copper alloy, charred twigs, slag, animal bones, and shells. In addition to the material culture, there were also inclusions of building materials, such as fired brick and limestone fragments and charcoal inclusions. Four bronze coins were also found: coin b1966 was a bronze dating to the 1st-2nd centuries CE, coin b1969 was a bronze dating to 253-268 CE, coin b1978 was a tetradrachm dating to 288-289 CE, and coin b1981 was a tetradrachm dating to 283-284 CE.

The removal of F4191 exposed the beaten earth walking surface F4194. The surface extends from the southeastern side of the house to the southwestern one, exposed following the removal of F4155. The oven H4 and the addition F4210 to F4063 had been placed over it. The small room H3 had been built before it, and the small eastern rooms H1 and H2 were constructed later. This layer was not excavated.

Between the house, the eastern addition, and the street

The area north of wall F4033 (the northern wall of the eastern addition) and east of wall F4032 (the eastern wall of the house) constituted another external area related to the house. It is adjacent to the street, but the robbed foundation trench F4126 cut it. Therefore, the area that underwent excavation was enclosed by the house and addition's walls and the robbed foundation trench.

Soil deposit F4208 covered the full extension of the delimited area. It was quite crushable in compaction and had a maximum thickness of 28 cm. It yielded a variety of artefacts: pottery sherds, animal bones, diagnostic and non-diagnostic glass shards, copper alloy fragments, three iron nails, one fragment of glass bracelet (b2061), two fragments of worked bones, possibly hairpins (b2054 and b2071), slag, and 16 bronze coins. The coins that provided accurate dating information were the following: b2060 (350-361 CE), b2065 (364-375 CE), b2047 (364-383 CE), b2057 (378-388 CE), b2062 (383-395 CE), b2059 (388-403 CE). Some charcoal fragments were also noted as limestone pebbles and fragmented fired bricks.

The removal of F4208 exposed three different layers: a pit (F4213), its fill (F4212), and the deposit cut by the pit (F4211). Pit F4213 also cut the layer below F4211, which was F4214. The pit was partially cut by the eastern side of the robbed foundation trench F4126. The fill of the pit, termed F4212, included the following material culture: pottery sherds, diagnostic and non-diagnostic glass shards, shells, animal bones, eight iron nails, copper alloy and iron fragments, slag, a copper alloy tool (possibly a hook for fishing nets) (b2086), and eight bronze coins. Two coins provided specific dating information to the late 4th and early 5th centuries CE: b2082 and b2088, dated to 388-403 CE. The full extent of the pit could not be observed since the area was affected by the robbed foundation trench F4126. Its recordable dimensions are 2.55 m in length and 1.75 m in width, and it had a maximum depth of 0.20 m.

Layer F4211 was under F4208 and was impacted by pit F4213. It presented similar characteristics to F4208 but contained fewer inclusions and material culture: the finds included pottery sherds, animal bones, shells, diagnostic and non-diagnostic glass shards, one iron nail, and slag. Small limestone fragments were also noted within the deposit. The layer was partially cut by the pit F4213 on its eastern side. The deposit covered by F4211 was F4214, which was much more compact. This new layer also extended throughout the area and beyond the boundaries of the robbed foundation trench F4126. It was identified as a possible walking surface analogous to F4133. This layer was not excavated.

F4214 presented a hollow area in its south-central part: the hollow was identified during the removal of 4211, but this layer had not filled it up. The hollow extended below the surface of 4214, but its full extension was not straightforward. Two possible runnels were also observed east and north of the hollow. It is not sure what caused the hollow's existence, but the runnels indicate that it could be related to water. The hollow orientation relates to a small opening delimited by two fired bricks within wall F403. Given the use of fired bricks, the small passage could have been used for drainage, leading to the hollow within the later feature F4214.

The robbed foundation trench

The trench F4126 and fills

A rectangular trench was noted in the southeastern quadrant of the excavation unit. It had a northwest-southeast orientation. The sides of the rectangle had similar lengths, albeit they did not entirely coincide. The cut of the trench was named F4126. Six fills were identified within it and were termed using sub-feature numbers: F4126 SL001, F4126 SL002, F4126 SL003, F4126 SL004, F4126 SL005, and F4126 SL006.

The first three sub-features were identified due to minimal changes in their characteristics. Features F4126 SL001, SL002, and SL003 all had the same light brown colour but differed in terms of the degree of compaction and inclusions, with F4126 SL001 being looser than F4126 SL002, and F4126 SL003 exhibited an increase in the number of material culture inclusions (mainly pottery and fired brick fragments). The material culture retrieved from these soil fills was varied: pottery sherds, diagnostic and non-diagnostic glass shards, one copper alloy nail, eleven iron nails (KAO 217, 280, 281, KAO 282), and one fragment of a sandstone mortar (KAO 112). Some of the finds were of more personal use: fragments of glass bracelets (nine), one faience bead, four worked bone fragments (two of which came from a part of the same flat object, one pin with a flat head, and one circular object (KAO 32)). There were also some building materials: worked and non-worked fragments of limestone and marble (KAO 110, 121, 122, and 131), one worked fragment of phyllite (KAO 111), painted plaster (KAO 163,

164, and 166), mortar (KAO 132), and fragmented fired bricks. In addition, bone and shell specimens, copper alloy (KAO 215, 216, 218, 219, 220, and 221) and iron fragments (KAO 283), faience fragments (KAO 61, 62, and 65), and slag were also encountered. There were twenty-eight copper alloy coins, the earliest of which dated to the end of the 1st-2nd centuries CE and the most recent to the 5th century CE; there were also some specimens from the 3rd century CE.

The removal of the fills of the robbed foundation trench allowed us to ascertain that it had truncated several features and the walls of the eastern addition. On the trench's southern (north-facing) profile, it was possible to note the remains of wall F4134, which would have closed the eastern addition on the south side (Figure 246).



Figure 246 View of the north-facing profile of the southern part of the robbed foundation trench F4126. The remains of wall F4134 are visible in the profile (to the left).

It is unclear whether the southern part of the trench was also compromised, as it was visible after removing F4000 during the first season of work in Unit 4. Table 39 illustrates the average depths of the four sides of the robbed foundation trench 4126. The southern part was the best-preserved side and had an average depth of 55 cm, whereas the northern side, allegedly the part that was compromised to a more considerable degree, was of 22 cm depth on average. The eastern and western sides were sloping towards north-northwest; therefore, the elevations for the whole extent of the sides and the southern and northern parts alone were calculated to observe the sloping and reduce the preserved remains of the trench further. It must be noted that the data for all the sides, excluding the eastern one, would reflect the base of the trench, whereas the eastern side shows the level of the fired brick packing. The average depths are congruent with each other, and they denote the sloping of the ancient terrain towards north-northwest. The top preserved remains of the trench's northern side are approximately 10 cm higher in elevation than the base of the trench on the southern side.

Table 39 Elevations of the different sides of the robbed foundation trench F4126.

Sides of the trench F4126	Average elevation of the base of the trench F4126	Average elevation of the surface of the top fills before excavation	Average depth of the trench F4126
Northern side	5.53 m ASL	5.75 m ASL	0.22 m
Southern side	5.64 m ASL	6.19 m ASL	0.55 m
Eastern side	5.62 m ASL	5.86 m ASL (all) / 6.00 m ASL (southern part) – 5.78 m (northern part)	0.24 m / 0.38 m / 0.16 m
Western side	5.76 m ASL	6.04 m ASL (all) / 6.14 m ASL (southern part) / 5.94 m ASL (northern part)	0.28 m (all) / 0.38 m (southern part) / 0.18 m (northern part)

Two different soil fills were identified in the northern part of the robbed foundation trench, F4126 SL004 and F4126 SL005. These two fills are different due to their greyish brown colour, which could have been related to fragmented mudbricks' inclusions that also rendered the matrix more compact. Mudbrick inclusions were not observed in the southern, western, and partially the trench's eastern side. F4126 SL005 was detected beneath F4126 SL004; similarly to F4126 SL003, this fill also included fragmented fired bricks.

It was not possible to obtain measurements of the bricks used in the packing of fired bricks (F4139) present on the eastern side of the trench as they were all fragmented. The layer of fired bricks had a thickness of approximately 9 cm. The average elevation of F4139 was 5.65 m ASL, but the different elevations show that the feature is slightly sloping from south to north, with a maximum of 15 cm between the southernmost and the northernmost parts. It reminds one of the modern terrain, which gently slopes from south to north. The modern terrain seems to have affected the trench’s sides, as they are much deeper on the southern side than the northern one; this could partially explain why the fills encountered in the southern parts did not reach the northern one.

The robbed foundation trench also impacted the Late Roman house's structure by partially cutting through Room C, running from southeast towards northwest, and turning towards the east at a 90-degree angle. The impact that the trench's creation had on the house is discussed in the next section.

Walls F4031 and F4036 exhibited signs of the trench's cut, with two lower areas in the middle of both walls where the trench passed. The difference in elevation compared to the highest part of the wall remains ranged between 15 to roughly over 20 cm. Following the removal of F4126 SL003 within the trench's western side, it was not clear whether the base of the trench had been reached. As per Table

39, the average base elevation of the layer on which F4126 SL003 was laid on the western side of the robbed foundation trench had a higher elevation than other sides but at a lower elevation than the parts of the walls surrounding Room C that had been cut.

The base of the cut was not identified once the removal of F412 SL003 ended. The following possible fill was termed F4126 SL006; its colour was dark brown, and it contained whitish inclusions and fragmented mudbricks. This deposit had an average depth of 35 cm within the room and appeared to be homogeneous. F4126 SL006 could have been part of the room's deposits rather than the fill of the robbed foundation trench due to the depth reached and the elevation of the cut affecting the walls of room C. However, the cut's profiles show a stratigraphy comprising several different deposits exhibiting different characteristics.

The variety of finds retrieved from F4126 SL006 are similar to those registered from the other fills of the robbed foundation trench. One bronze coin (b1591) found within this fill dated to the 5th century CE. The pottery finds are congruent with those of Late Roman Room C. The finds also included diagnostic and non-diagnostic glass shards, faience fragments, iron fragments, among which were seven iron nails, a possible iron awl or punch, and the fragment of an iron object (possibly a blade), one small terracotta object (KAO 36) resembling a cowrie shell, painted plaster fragments, a limestone slab fragment, slag (1.68 kg), and bones and shells.

The remains of the robbed foundation trench 4126 argue for the intention of constructing a new structure in the neighbourhood. Given that the area has solely been investigated in depth through the excavation of Unit 4, it cannot be said whether this represents the renovation of one area of the neighbourhood by private individuals or if there existed a more generalised plan that comprised more areas. The area was often changing. The finding of the fired brick packing in only one side of the trench leads to the assumption that the work behind it was interrupted or never reprised, or the possible construction was looted of the building materials during the construction period. The fact that the trench 4126 cuts through the remains of the Late Roman house brings the question of whether the new structure would have complemented the existing one or the southern area of Unit 4 was being remodelled, and the Late Roman house had fallen in disuse, or it had been levelled to prepare the base for a new building. The same can be said about the eastern addition.

It was not possible to discern what kind of structure the trench was deemed to support or what kind of materials it would have built. Nonetheless, a new construction approach was noticeable, as the Late Roman house's eastern wall's foundations did not show the presence of a packing layer. Fired bricks were included in the house's architecture as additions or fillers.

We excavated a sondage on the northeastern side of the trench F4126 to confirm that the fired brick packing had been conceived as part of the trench and was not a feature of another structure. The selected area was located between wall F4027 (to the south), the trench F4126 (to the west), an arbitrary

line following the direction of the northern profile of the trench's northern side (t0 the north), and the eastern limit of Unit 4 (to the east). The excavation revealed two soil deposits: F4135, a thin (average thickness of 0.021 cm), ashy grey deposit that lay over F4136, and a light brown and crushable layer extended within the whole boundary of the sondage area.

Despite the thinness, F4135 yielded the following material culture: pottery sherds, one bronze coin (dating to the 5th century CE), diagnostic and non-diagnostic shards of glass, an iron nail, and bones and shells specimens. There were also inclusions of limestone fragments and fragmented mudbricks on the western side. F4136 had a wider variety of finds: pottery sherds, 19 bronze coins, bones and shells, slag, diagnostic and non-diagnostic glass shards, iron nails, 1 + 3 worked bone, copper alloy fragments, as well as limestone fragments, mud and fired brick fragments, and plaster. The coins all dated to the 4th and 5th centuries CE. A few specimens could be accurately dated: b1629 dated to 378-388 CE, b1612 and b1624(2) to 388-403 CE, and b1624(7) to 430-455 CE. Among the remaining 15 coins, b1624(6) was dated to 539-540 CE, Justinian I, but the recognition of this coin is uncertain.

The following layer, F4138, was only excavated partially due to time restraints. The excavation of the sondage was reduced to a small trench running parallel to the fired brick packing. F4138 was light brown and had a silty texture. The finds recovered from its excavation were similar to those from the other layers: pottery sherds, two bronze coins dating to the 4th-5th centuries CE, diagnostic and non-diagnostic glass shards, two iron nails, bones and shells, three fragments of painted plaster, limestone fragments, and one fragment of slag (0.4 g).

After removing the soil deposits, it was possible to confirm that the fired brick layer was constrained within the limits of the trench and that they had been laid directly over its base.

The 'corridor' aka the remains of the internal stairs

This part of the house was initially considered a possible corridor that led into Room A. It was visible on the ground surface before excavation, and the initial clean-up confirmed the absence of bricks. Further clean-up work revealed the presence of the robbed foundation trench F4126, which geometrically included the 'corridor.' Given its position within the boundaries of the house, it was excavated separately from the robbed foundation trench F4126; however, it must be noted that the first soil deposit identified within the 'corridor' is part of the robbed foundation trench and most probably related to F4126-SL004 and F4126-SL005.

The first soil deposit filled the 'corridor' up to the area initially thought to be the entrance of room A. The feature was termed F4124, a light greyish brown deposit of crushable compaction and silty

texture. The base of this deposit was, on average, at 5.64 m ASL. The variety of material culture found in this deposit is similar to that found in the fills of the rest of the robbed foundation trench F4126: pottery sherds, diagnostic and non-diagnostic glass shards, one faience bead (b1390), copper alloy fragments, a long and flat rectangular copper alloy object (KAO 213), one fragment of worked calcite, animal bone and shell specimens, slag, and eight bronze coins. Coin b1393 dated to 364-388 CE; the rest dated to the 4th and 5th centuries CE.

Deposit F4125, beneath F4124, presented a different picture: it was darker in colour and included many fragmented mudbricks. Excavation revealed that fragmented mudbricks mainly constituted the deposits. The quantity of finds was lesser than in the previous deposit: pottery sherds, non-diagnostic glass shards, one copper alloy fragment, animal bone and shell specimens, slag, and three bronze coins, one of which (b1438) dated to 388-403 CE, while the other two dated to the 5th century CE. The finding of coin b1438 in an earlier stratum than that where coin b1393 was retrieved suggests that the 'corridor' most probably underwent some action concerning the robbed foundation trench F4126, especially considering the number of fragmented mudbricks. The registered elevation of coin b1393 was 5.641 m ASL, whereas coin b1438 was 5.472 m ASL. The former coin's elevation is close to the average elevation of the base of deposit F4124; nonetheless, the different characteristics of the two deposits allow us to assume that the former coin was not included within the lower deposit.

The mudbrick walls surround the space within the 'corridor'; the northern and southern profiles exhibit damaged bricks that are difficult to distinguish. Two parts include mudbricks that would appear to be arranged in a semi-arch: they can be seen in the northern façade of wall F4036 (Figure 247) and the eastern façade of wall F4143 (Figure 248), where remnants of light yellowish-grey mortar are also visible. Due to the degree of damage within the 'corridor', it is unclear whether they are remnants of architectural features or part of the collapse, but they



Figure 247 View of the 'corridor' southern profile, showing the damaged part of wall F4032 (to the left).

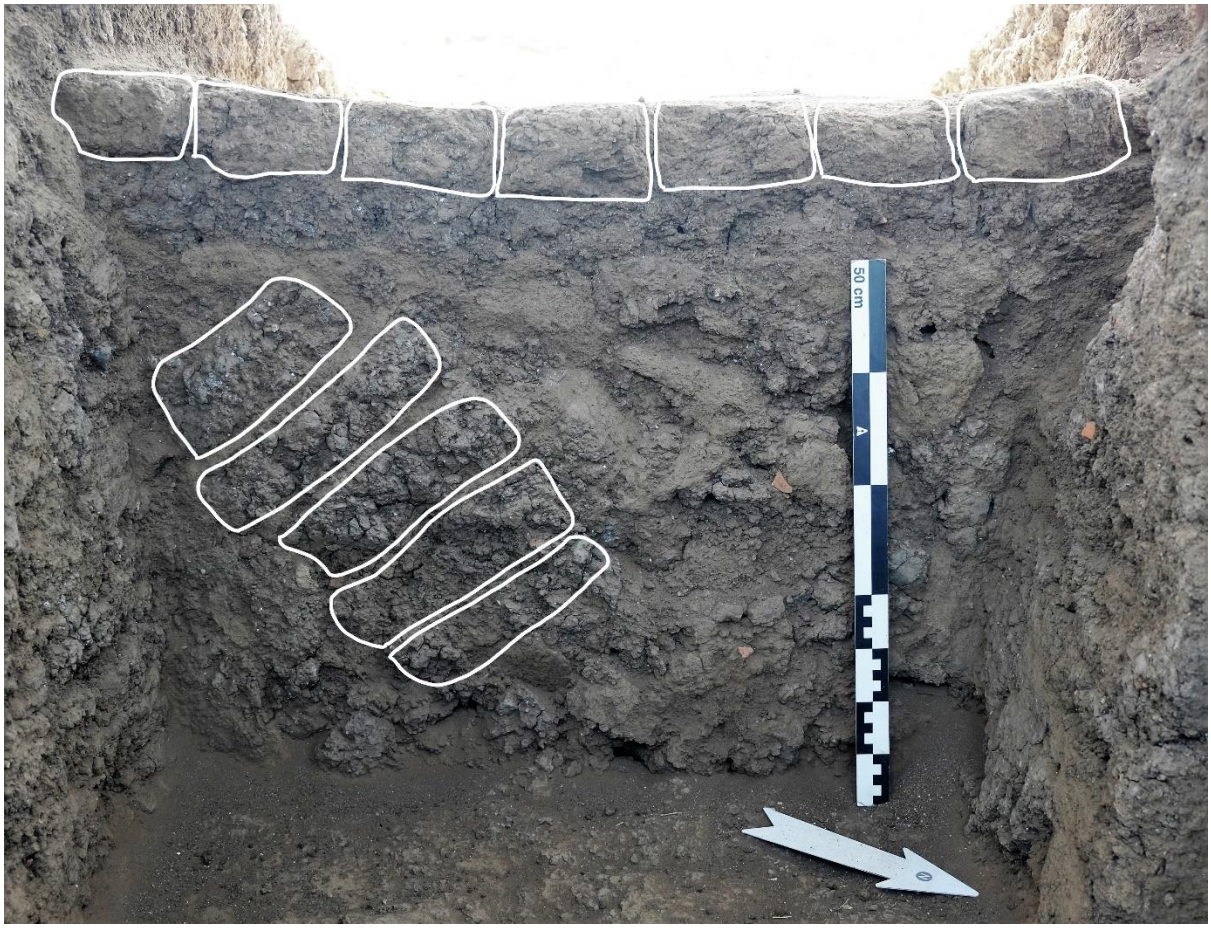


Figure 248 View of the eastern profile of wall F4143 with the oblique mudbricks' detail and the top mudbrick course drawn for clarity. The remains of light yellowish-grey mortar are also visible between and around the bricks.

An additional architectural feature (F4142) was identified within the 'corridor': a possible mudbrick fixture placed between walls F4036 and F4047; it presented two possible steps. The poor preservation of the mudbricks of the walls mentioned above makes it difficult to understand whether F4142 is bonded with both or cut by them. The average size of the bricks composing F4142 is 29 x 12 x 6 cm. The dimensions of the fixture are detailed in Table 21. There is a difference of 20 cm in height between the lower and upper steps. The eastern side of the feature appeared to have been damaged in the same way as wall F4032, with a partial removal (see Figure 275). Its remains are visible in the profiles of the 'corridor'; no other features were discerned.

Table 40 Dimensions of architectural feature F4142.

F4142	Length (W-SW/E-NE)	Width (S-SE/N-NW)	Height
All	130 cm	99 cm	45 cm
Lower step	70 cm	90 cm	25 cm
Higher step	60 cm	99 cm	45 cm

The spaces not occupied by F4142 had possible mudbrick floors (F4140 to the west and F4141 to the east). The surfaces were worn and the bricks challenging to distinguish, making it unclear whether they had been intended as floor surfaces or were part of another architectural feature. The average elevation of floor F4140 was 4.91 m ASL, whereas the average elevation of floor F4141 was 4.93 m ASL.



Figure 249 View of F4140, immediately west of F4142.

The situation with this part of the house is challenging to interpret. What can be stated with some confidence is that the 'corridor' most probably had no function as a corridor and that the entryway into room A seems more related to the digging works of the robbed foundation trench F4126 (it also has a similar width, between 95 and 100 cm). The area underwent a few interventions at least, the most evident being the digging of the robbed foundation trench F4126; possible other interventions are suggested by the partial removal of walls F4032 and F4142, the state of the mudbrick profiles of the walls, and the high quantity of fragmented mudbricks within the lower deposit. Since all these characteristics can solely be observed within the boundaries delimited by the robbed foundation trench, it can be assumed that the damages were related to its digging.

The function of F4142 and the mudbrick floors F4140 and F4141 is unclear. The resemblance of F4142 to steps leads toward the idea of stairs; walls F4036 and F4047, which are considerably wider than the other walls of the house, could have been employed to support a staircase.

The preserved surface of the eastern part of wall F4047 bore the remains of a pit filled with soil deposit F4311. Some complete and fragmented fired bricks were found within it. There was little other material in the pit: a few pottery sherds, copper alloy fragments, animal bones and shells. The rectangular dip extended towards west and reached a recess in the wall F4047. It was unclear whether the dip was a functional space or damaged. There were few fired bricks within Unit 4, but fired bricks always had a specific purpose (see Room B); thus, the possibility that the fired bricks may represent the remnants of a fixture rather than scrapped building materials should not be discarded.

The western side of the amphorae storage building was contemporary with the house and part of the same neighbourhood. The amphorae building also has an area where the walls are thicker than in the other parts of the structure. Initially, the presence of a sixth room (like room D of the same building) had been inferred as space was covered by a layer of soil that, upon deeper cleaning, turned out to be only a few centimetres thick (Marchiori 2019: 220). The stairway might have been placed in this part of the structure.

The glass kilns

A group of kilns was detected in the southwestern corner of the excavation unit. Their presence was first noted during the unit's initial clean-up because of a reddish soil deposit; the investigation began when the possible *sebakheen* pit (F4169) was excavated. The pit had damaged the kilns by cutting through them. Since all the detectable kiln remains were found cut, it can be assumed that the pit's cut had removed any evidence of other potential kilns. The kilns introduce another context of the area delimited by Unit 4, a context that seems to have been entirely devoted to work activities.

Walls F4054 and F4055, located in the southwestern corner of the excavation unit, seem to be related to the glass kilns as they enclose the space between the kilns and the Third Building. F4055 was partially exposed, and it runs over the west wall of the Third Building (F4057), thus highlighting the alterations in the use of space during the latest preserved phase of use of the area. F4054 is pending investigation, but it could be seen that it cut one of the westernmost kilns.

Three kilns were identified; they were all constituted by different phases of use that overlapped each over. The kilns of the latest phases were lined with mudbricks, whereas the earlier ones show burnt remains but no apparent remains of a possible mudbrick dome. In two instances where the mudbricks

are still preserved, they seem to line the edges of the kilns; on the other hand, there was one instance where the mudbricks covered the top of the kiln.

One kiln was investigated. It was termed F4304, and it was placed near the house's southern side and the northwestern corner of the third building. The choice of excavating this specific kiln was dictated by external factors: the local stray dogs that inhabit the site had damaged the remaining kilns between one excavation season and the other, despite the coverings and the layer of backfill soil that had been placed over the features. Kiln F4304 exhibited the preserved remains of a semi-circular mudbrick lining at the top; it can be assumed that the original shape would have been circular. The preserved remains measured 80 cm in length (diameter) and 41 cm in width (radius). The use of the kiln occurred after the abandonment of the southern addition, or at least the westernmost one: the corner small room H1 protrudes from within the eastern side of the cut of the *sebakheen* pit, and the layers of kiln F4304 cover it (Figure 250).

The excavation of kiln F4304 enabled further exploration of the different phases of use. The phase of the kiln with the mudbrick lining had been preceded by three others, which started in proximity to the corner of small room H1 and progressively shifted south. Some phases of the kiln impacted the previous ones; the kilns' construction seems to have involved cutting a hole in the ground, and this action damaged the previous phases. All the fills were loose and presented various colours from red, yellow, and black with whitish spots. The deposits did not yield many finds, neither in variety nor quantity: small pottery sherds, some animal bones (some of which were burnt), charred twigs, very few diagnostic and non-diagnostic glass shards, two fragments of glass bracelet (b2637 and b2649), and a few small fragments of slag.



Figure 250 Kiln F4304 after excavating at least three phases of utilisation.

The material culture findings do not point towards a specific use of the kiln. The dimensions of the kiln phases were all small, and the most durable construction material used was the mudbrick; it cannot be said whether it had been used for all of the phases as the only remains preserved are associated with the latest phases. Their profiles allowed to us observe the amount of burnt residues associated with each phase. The exploration of the excavation unit did not reveal any other area with such a degree of burning. The hearth associated with using the house's eastern addition (constituted by the pit F4181 and the deposits F4132 and F4127) did not present traces of earlier phases.

Regarding the dating, the stratigraphic position indicates that the kilns are contemporary with Subphase 4 of the Late Roman house; this was further confirmed by finding three diagnostic pottery sherds from two fills of the kiln F4304, which overall dated to the 5th century CE. The soil deposit that covered this kiln's remains was F4156, and it lay between the western wall of the Third Building (F4057) and the *sebakheen* pit. The seven bronze coins collected from this layer indicated dating evidence between the 4th and 5th centuries CE. More specific dating could be inferred from the coins retrieved from the sieve (b1715): 347-348 CE, 388-403 CE, and 408-435 CE, which indicate a slightly later temporality than that of the coins found within the Third Building. Kiln F4304 was dug into soil layers covering the small walls F4059 and F4199 that delimit the small room H1 (part of the southern addition). The southern addition seems to be temporally related to the Third Building, implying that

they would have been used simultaneously. Therefore, the kilns pertain to Subphase 4, which occurred after the Third Building had fallen out of use.

The Third Building

This building lies in the southern-most part of the excavation unit. There is no physical relation between its walls and those of the house; it is the third separate building to be confirmed within the boundaries of Unit 4. Only part of one room has been investigated; walls F4057 and F4034 run into the excavation unit's southern baulk. Not much is visible on the ground surface; thus, this structure's dimensions and shape cannot be discerned without further excavation work. Presently, the building consists of the remains of a —possibly— rectangular room constituted by mudbricks.

This building's remains were exposed following the removal of soil deposits F4016 and F4020 (the former revealed the top preserved course of wall F4057, while the latter exposed the top preserved course of wall F4058). The northeastern corner of the building was covered by the continuation of a hearth related to the house's eastern addition, thus indicating that the building was in disuse during *Subphase 4* of the house. Since the layers partially covering the building's northeastern corner also covered the house's southern additions F4063 and F4210, it can be argued that the third building and the southern additions belonged to *Subphase 3*.

Mudbricks of very similar dimensions constituted the walls delimiting the third building's room; the walls were composed of yellowish-brown clayey and greyish brown loamy bricks (especially within wall 4058). Wall F4058 is the only wall whose length dimension is confirmed as the other two walls run into the excavation unit's southern baulk. The three walls were bonded together, thus confirming that they were part of the same construction phase. As with the other buildings, no doorway was identified. It must be noted that wall F4034 presented a cut; nevertheless, it resembles the cut identified within the eastern wall of the Late Roman house's Room A, as the cut's position on wall F4034 is also symmetrical with the robbed foundation trench F4126. Thus, it might be related to the preparation of the trench F4126.

A distinct difference between the context of the house and the amphorae storage building was the existence of a sequence of beaten earth walking surfaces separated at times by one or few relatively thick soil deposits as those encountered within the rooms of the house. This particularity highlights that the room was used for activities that led to soil accumulation and that a rising floor surface was not deemed problematic. This interpretation is supported by the fact that the only artefacts retrieved lying directly on the surfaces were pottery sherds. The remains also denote how the beaten earth surfaces sloped inwards from the room's sides. This conformation attests that the most used part was the central one and that the sides were not predominantly occupied, unlike the amphorae storage building, where

it could be noted that the beaten earth surface within Room C gave way under the weight of the amphorae accommodated leaning against the wall on the eastern side of the room. The sloping of the beaten earth surfaces led to a misinterpretation of the stratigraphy, which led to the existence of a trench running along the walls' inner sides. This assumption was rectified following the observation of the room's internal stratigraphy profile.

Five beaten earth walking surfaces were registered during this room's investigation (F4145, F4158, F4161, F4173, and F4174). Overall, these surface layers were characterised by slightly harder compaction, but some (F4158 and F4174, for instance) exhibited patches of very thin yellowish-orange soil (Figure 251 and Figure 252). Each surface layer had one or more soil deposits in between. Given the multiple occupational levels identified, it can be inferred that the primary occupation possibly implied accumulation.



Figure 251 Yellowish orange patches over beaten earth surface F4158.



Figure 252 Detail of yellowish-orange patches over beaten earth surface F4158.

The removal of the beaten earth surface F4161 in the northwestern corner exposed the remains of a fixture installation (F4172) that was constituted by the remains of an LRA 4 amphora with a circular hole at its base covered by a fragmented fired brick (recordable dimensions: 11.5 cm in width and 6.5 cm in thickness). The amphorae remains were found inserted within a circular row comprised of three mudbricks. This fixture's remains seem to have been intended to hold something, possibly a post of perishable material such as wood, to support temporary roofing. Remains of wood dust and finer soil were detected in the northwestern area within the layers that covered it. The installation was placed over the beaten surface F4173.

An example of this kind of roofing is known from Pompeii: one *triclinium* in the vineyard of Regio 2, in Insula 5, had a row of five amphoras embedded along the outside edge of the *lectus summus* (the couch to the left, usually the highest too), close to the wall of the building where wine was produced. The amphorae had been broken off below the neck, and the bottom parts were missing. The interpretation was that the purpose of the amphorae was to support the posts for the pergola that shaded the *triclinium* (Jashemski 1979: 215–6) (Figure 253).

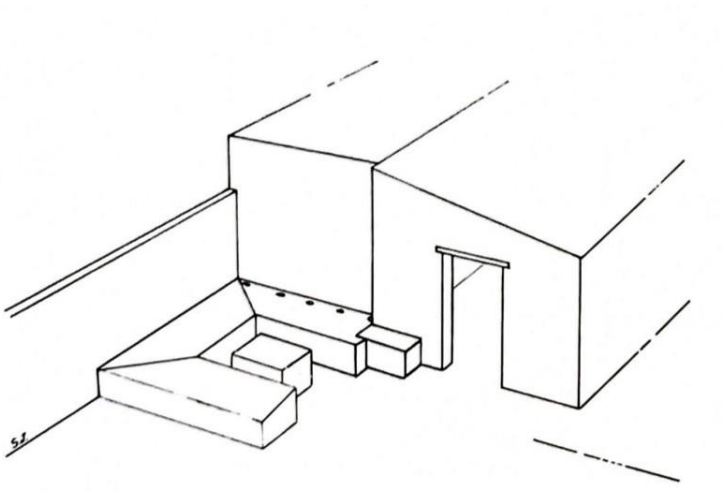


Figure 253 Drawing of one of the triclinium in the vineyard of Regio 2, Insula 5, at Pompeii indicating the position of the amphorae that were part of a roofing fixture *(Jashemski 1979: 216, figure 315)*.

The northeastern corner did not present similar remains for a temporary roofing fixture, except for a fired brick with remains of straw (>20 x 12 x 6.5 cm) and a large sherd of pottery lying in the corner.

The sequence of beaten earth surfaces detected thus far is the following: the earliest one was F4173, which was contemporary with the possible temporary roofing fixture F4172. This layer exhibited hay remains on its surface (Figure 254, Figure 255, and Figure 256) and a high quantity of whitish speckles (which is not salt; it could be some lime or degraded organic material). Its removal brought to light a lower layer with a cluster of fired bricks near the eastern wall, implying that it was not the lowest occupational layer of the room.



Figure 254 View of the beaten earth surface F4173 exhibiting organic remains embedded on its surface, including hay.



Figure 255 Detail of hay remains in F4173.



Figure 256 Sample of the vegetal and organic remains from F4173.

Soil deposit F4177 covered the beaten earth surface F4173; it was of darker colour with inclusions of limestone pebbles and fragmented, fired bricks and mudbricks. Two of the latter were complete (average dimensions were 27 x 13.5 x 6 cm). This deposit lay under F4175, a deposit characterised by the possible inclusions of animal dung. The latter had an orangish colouration and exhibited inclusions of vegetal remains (Figure 257). The possible dung exhibited inclusions of vegetal remains; it had not retained any shape since it had been compacted.



Figure 257 View of deposit F4175, with possible inclusions of dung (orange).

Though only chemical analysis would confirm this supposition, evidence from research on animal pens refers to compacted dung layers between midden layers that are distinguishable by their orange colour; the colour is due to the decay of the plant contents (Brönnimann et al. 2017; Matthews and Portillo 2017). Research has been carried out on animal pens at Çatalhöyük, Turkey. It relates that the visual identification of the dung layers is based on the detection of highly organic deposits (including phytolith inclusions), microlaminated structure, and orange organic staining (Portillo et al. 2019: 3) (see also Cessford 2007; Matthews 2005; Matthews et al. 1996). Portillo *et al.* (2019: 4, 10) illustrate that the reason the dung is compacted is precisely the nature of an animal pen, which would have the dung remains trodden on by the same animals; they note that the eventual plant tissue inclusions would also appear sub-parallel to the occupation surfaces. Multiple dung layers are related to short-lived events resulting from animal penning activities. The fragment of a glass bracelet and a fragment of marble were recovered from this feature.

F4174 lay over the dung layer F417. F4174 was a brown layer that exhibited thin patches of yellowish soil and a clayey texture. It had some inclusions of fired brick fragments and limestone pebbles. The thin patches of yellowish soil were also noted on other beaten earth surfaces, which led to the interpretation of this layer as another walking surface. Some small orange patches were also noticeable on its surface. The layer was followed by F4161, another yellowish beaten earth surface with

hard compaction. It also included fragmented fired bricks, limestone pebbles, and small charcoal fragments. This layer covered the remains of the temporary roofing fixture F4172, which suggests that the roofing was either removed or modified, which could have implied a change in the room's use. One of the few soil deposits that did not extend within the room's investigated area was F4162, which lay over F4161. F4162 had a clayey texture and more pottery sherds, and whitish dusty inclusions. Aside from animal bones and fired brick fragments, the deposit did not contain anything else.

Soil deposit F4160 lay over the beaten earth surface F4161. This layer contained a wider variety of finds than the other deposits; pottery sherds, animal bones, shells, worked bone, possibly the head of a hairpin (b1797), diagnostic and non-diagnostic glass shards, one fragment of glass bracelet (b1753), around 120g of slag, and two bronze coins, one dating to the 3rd-1st centuries BCE (b1783) and the other dating to 330-336 CE (b1748). This deposit was covered by the beaten earth surface F4158, which resembled slightly F4174 due to the patches of yellowish soil and the inclusions of fired brick fragments and limestone pebbles.

Soil deposit F4147 followed, and like soil deposit F4161, the variety of finds was varied: pottery sherds, animal bones, diagnostic and non-diagnostic glass shards, one fragment of glass bracelet (b1733), faience fragments, slag (90 g), one iron nail, and one bronze coin (b1739) dating to the 4th-5th centuries CE. Another beaten earth surface ultimately covered this deposit, F4145, which presented the remains of fragmented fired bricks accumulated against the room's eastern wall. As the lower deposit, this layer's material culture included pottery sherds, one lamp fragment (b1665), animal bones, diagnostic and non-diagnostic glass shards, slag (700 g), two iron nails, and one bronze coin (b1664), dating to 335-336 CE. This floor was associated with a mudbrick installation (F4176) located at the centre of the room (Figure 258). The installation consisted of one outer course of mudbricks (whose average dimensions were 23.5 x 9 x 6 cm), while the inside was filled with fragmented mudbricks. The dimensions were 1.53 m in length, 66 cm in width, and 6 cm in height. The width measurement is temporary as the installation continues into the excavation unit's southern baulk. Three thin soil deposits of squarish shape lay against its western side (F4166, F4167, and F4168) and over the beaten earth floor F4145; they could have been accumulations of waste related to the activities taking place over floor F4145.



Figure 258View of F4176, the mudbrick installation in the middle of the Third Building.

Although the room's utilisation could have changed following the disuse of the temporary roofing fixture F4172, the mudbrick installation has been viewed as a possible manger.

The material culture highlights a possible difference in the utilisation of the above room following the disuse of the temporary roofing fixture F4172. Overall, the typology of finds is more or less the same in the earlier and later phases of room use. It could be noted that the finds from the features associated with the context of the possible animal pen protected by the temporary roof are fewer in quantity and variety; however, this could be dependent on the excavation strategy, as only half of the room after the exposure of the beaten earth surface F4161 was excavated. Though F4175 and F4177 were the only features to yield worked stone fragments (one fragment of marble slab b1817 and one possible fragment of red quartzite b1833), the low number of fragments suggests that they may represent discarded material. The most common finds were pottery sherds, glass shards, and fragmented fired bricks. The context also yielded finds that have been commonly found within the excavation unit, such as three worked bone fragments (two hairpin fragments from F4144 and F4160, respectively, hence the later phase of use, and one object fragment from F4177, the earlier phase of use) and three glass bracelet fragments (from layers of the later phase of use F4147, F4160, and one layer of the earlier phase of use F4175). Four iron nails were retrieved from the later phase of use layers, a lesser number when

compared to the quantity found in other buildings, though it must be remembered that this building was partially excavated.

The dating evidence provided by the twenty coins retrieved from the room advocates for the room's use between the 4th and early 5th centuries CE. The coins from the later phase of use that yielded more accurate were the following: b1743 and b1778, dating to 340 CE and 347-348 CE, respectively (both from F4144), b1664, dating to 335-336 CE (from F4145), b1653, dating to 347-348 CE (from F4158), and b1748, dating to 330-336 CE (from F4160). Only one coin from the earlier phase of use could be read with precision: b1862, dating to 312-318 CE (from F4173). Two coins exhibited earlier dating: b1775, a tetradrachm dating to the late 3rd century CE, and b1783, dating to the 3rd-1st centuries CE (found in F4163 and F4160).

Fixture F4172 hints that at a certain the room was open and shielded from the elements by temporary roofing supported by the fixture F4172 constituted by the remains of the base of an LRA 4 amphora placed within a circle of mudbricks in the northwestern corner of the room.

The 'hole' – the sebakheen pit

Only part of the pit was excavated due to concerns about the time it took to excavate it fully. A *sondage* of 3.90 x 3.50 m was thus planned within the pit. The soil deposits excavated in the sondage in the hole were not fully sieved due to the clayey texture and the soil's degree of compaction. This decision was also based on the pit's size and the time it would have taken to excavate it fully.

Four fill deposits were identified: F4157, F4159, F4163, and F4171 (listed from the latest to the earliest). The fills were differentiated due to their colour, ranging from dark grey, medium brown, and greyish brown, respectively, and changes in the texture, compaction, and inclusions. F4157 exhibited the most clayey texture due to the inclusion of fragmented mudbricks, which rendered it also relatively compact. This fill had a maximum thickness of 1.20 m. F4159 has a siltier texture and was more crushable and far less thick than the previous fill, with 0.25 m of maximum thickness. It also contained a lesser quantity of finds, though they remained varied. F4163 had similar compaction and texture as F4159, but it had fewer mud brick fragments. When this fill was identified, the sondage was reduced in size to 1 m in width; this decision was taken with consideration of the pit's depth and the intention of reaching the end of the pit more rapidly. This fill had a maximum thickness of 1.75 m.

The findings retrieved from fills F4157, F4159, and F4163 ranged between pottery sherds, diagnostic and non-diagnostic glass shards, including a fragment of glass bracelet and a glass drop (possibly related to glass production), animal bones (one worked bone), shells, two iron nails, one fragment of copper alloy, two copper alloy coins, slag, lamp fragments, painted plaster fragments, faience fragments (among which one rim fragment), worked limestone, a stone tool, fragmented fired

bricks and plaster, limestone pebbles, and small fragments of charcoal. All fills included mud brick and plaster fragments, though the quantity of inclusions (including materials) diminished with each fill.

The last fill to be identified within the pit was F4171. It was initially presumed that this layer represented the end of the pit as it had a different colour (dark yellowish-brown) than the previous fills and a much higher quantity of materials (also visible on its surface) even though only 5 cm of this layer were excavated. The findings were pottery sherds, faience fragments, animal bones, one iron nail, iron fragments, slag, two fragments of worked limestone, and one copper alloy coin. The decision not to proceed with this feature's excavation was based on the depth reached by the dig, which was more than 3 m below the ground surface level.

Layer F4171 was initially thought to be below the pit's cut due to changes in colour and quantity of finds. On the other hand, this assumption was eventually disproven by the House's Room C excavation and the dating of the materials from both areas. The maximum depth reached by Room C's excavation was 2.558 m ASL, and the maximum depth registered in the pit F4169 was 2.692 m ASL. The pottery sherds and the copper alloy coin (b1784) from F4171 date to the 4th century CE and 280-281 CE, whereas some of the materials retrieved from Room C date to the 1st century CE. Considering this, it seems odd to have a layer with materials dating to disparate centuries at the same stratigraphic elevation. Thus, it is more likely that F4171 and its contents may represent another fill of the pit. The presence of a higher quantity of materials in the lowest excavated fill within the pit leads to assuming that they could have been dumped there. If it was a *sebakheen* pit, the diggers could have dumped inside it the materials they were not interested in. It is unclear if the materials came from the layers excavated by the diggers of the pit or elsewhere.

The profiles of the sides of the pit offer some insight into the use of the area (Figure *259*). Only the eastern and southern profiles provided a view of the internal stratigraphy of this part of the Kom, as the northern and western ones show the fills of the pit. The upper parts denote a stratigraphy constituted by many thin layers ranging between brown and reddish colouring with the inclusion of charcoal traces or thin charcoal layers in between and dusty whitish inclusions. These successions of layers continue until the level of the low, mudbrick architectural feature; at that point, the layers become thicker, more clayey, and darker in colour. Material culture is visible in the profile, mostly pottery sherds, fired brick fragments, and small limestone fragments; there are few pottery clusters.

Aside from the glass kilns present on the higher part, the only other human-made features in this area are the remains of a possible mudbrick architectural feature. One is visible on the southern profile made up of two brick courses; it is 1.45 m in length and approximately 1.10 m below the level of the lowest kiln. The bricks have an average length of 29.5 cm and an average thickness of 9 cm. It is unclear whether this feature represents the remains of a wall or an installation. A possible second architectural feature is visible on the eastern side and found at approximately the same elevation as the

one in the southern profile; it is approximately 1.60 m long, but the mud bricks are less clear. The deposits below the mudbrick courses' level appear different from those above and are thicker and less linear.

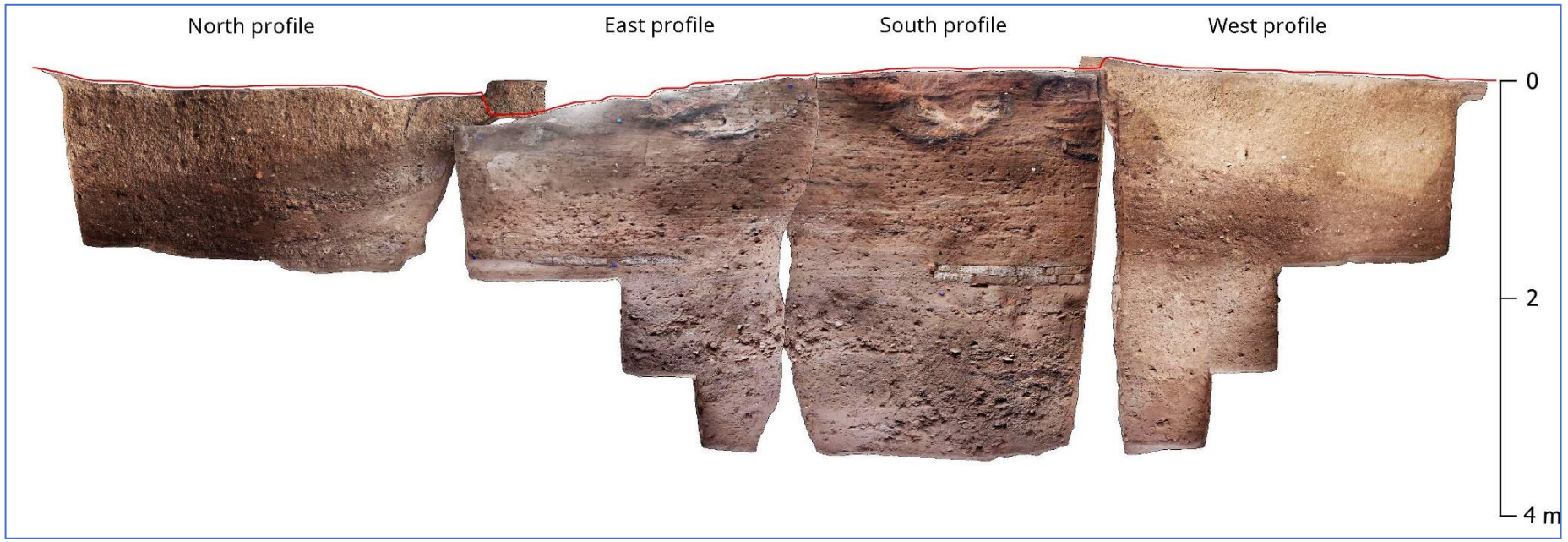


Figure 259 Profiles of the possible *sebakheen* pit F4169.

The Street

Following removing the surface layer F4000 and soil deposit F4001, which partially covered the western part of the street area (north of the Late Roman house's Room A), the feature F4110 was identified and removed. This soil deposit lay, along with the extension of the street, between the buildings. The removal of this layer revealed the beaten earth surface of the street, which was primarily hard and compacted. The eastern part was characterised by three patches of reddish, greyish, and yellowish soil, which lay over a hollow below the street's surface. The patches relate to a hearth of some kind. The hollow emphasises the possibility that the burnt layers could relate to waste disposal. Other hollows were identified nearby, between the north side of the eastern addition and the house's northeastern corner. The hollow seems to be linked with the two parallel fired bricks set within wall F4033 that delimit a small passage within the wall. The beaten earth surface F4214 had been impacted by the hollow; interestingly, it had the same orientation as the one in the street. This similarity leads to arguing that waste was thrown out on the street.

A similar feature was noted solely on the outer side of the amphorae storage building's southern wall, F4040: individual fired bricks had been placed lengthways at regular intervals from one another within a runnel that ran along the wall. The runnel was filled with the same soil of deposit F4110, meaning it had not been filled intentionally. The runnel seems to have been intended as drainage, even though it had an irregular shape and there were no remains of plaster that could have protected the wall's surface from water; no plaster remains were found within the deposits over the street. Runnels were also identified in the storage building's Room C, the southernmost room and looking onto the street. A rectangular cut stretches from the northeastern corner of the house towards the southeastern corner of the amphorae storage building. It was not excavated; therefore, it cannot be said whether it was another runnel or a different intrusion.

Moreover, removing the soil deposit F4110 exhibited the remains of a different feature located on the street, north of the house's Room A. The feature F4112 consisted of a soil deposit mixed with mortar filled with flat fragments. These worked fragments were retrieved solely from F4112, but a few were found over the possible waste remains outside the house.

The finds recovered within F4110 and F4112 in association with the street were pottery sherds, 36 iron nail fragments (KAO 273), diagnostic and non-diagnostic glass fragments, animal bones, shells, glass bracelet fragments (3), copper alloy and iron fragments, faience fragments, fragments of a copper alloy ring (KAO 173) and a fragment of a worked bone ring (KAO 23), 500g of slag, worked bone, among which one slightly circular fragment (KAO 30), one worked fragment, possibly an inlay for furniture (KAO 27), and two fragments of distinct bone hairpins (KAO 17 and 18), two fragments of a

copper alloy object (KAO 206, 207, and 208), one fragment of limestone slab (KAO 127), and 44 bronze coins.

Twelve coins were preserved enough to provide accurate dating information: KAC 57, dating to 313-315 CE, KAC 71, dating to 337-347 CE, KAC 82, dating to 351-355 CE, KAC 107, dating to 350-361 CE, KAC 113, dating to 355-363 CE, KAC 126 and 127, dating between 364-383 CE, KAC 145, dating to 388-395 CE, KAC 169 and 176, dating between 388-403 CE, KAC 217, dating between 406-48 CE, and KAC 234, dating to 425-435 CE (minted by Theodosius II and Valentinian III). The rest of the coins date to the 4th–5th centuries CE, and the presence of a coin dating to the 1st-2nd centuries CE (KAC 31) should be noted.

Dating information was also provided by the pottery remains of imported fine ware. ARSW Hayes 57 (KAP 7), which dated between 325 and the mid-5th century CE, ARSW 61A (KAP 14), dating from 320 and the mid-5th century CE, ARSW Hayes 67, with a dating range from 360 to 380 CE, ARSW (KAP 53) with a stamped decoration of a rosette, LRD Hayes 1 (KAP 61 and 65), from the late 4th century to the third quarter of the 5th century CE, and LRC Hayes 3B (KAP 109) to the early-mid-5th century CE.

The Amphorae Storage Building

It is currently the building that has been investigated the most aside from the house. The building is larger than the house, but the rooms are smaller, except for Room C, the largest by far and with a different shape (L-shape). The building's plan presents an area filled with mudbricks west of Room D. The mudbricks had been detected a few centimetres beneath the top level of the building's remains, which had initially led to erroneously assume the presence of an additional room like Room D. The unused space within the building might be related to another kind of architectural feature. It recalls the northeastern part of the Late Roman house, a space without rooms that could have served an architectural purpose such as that of a staircase. In addition to the space without a room, some hints point toward the possibility that there could have been a staircase in that space, such as the building's thick walls, indicating more substantial weight support, especially compared to the width of the Late Roman house's walls.

Aside from the amphorae, the finds typologies from this building resembled those of the house, like the high number of dispersed bronze coins. The other finds were pottery sherds, copper alloy and iron fragments, diagnostic and non-diagnostic glass shards, shell, limestone basin (KAO 105), slag, copper alloy ring (KAO 170) and copper alloy ring fragments (KAO 171 and KAO 172), animal bones,

a fragment of a possible bone hairpin (KAO 13), a worked bone fragment, possibly an inlay for furniture (KAO 26), iron nails, glass bracelet fragment, two fragments of a spheroidal bead in faience (KAO 64), the fragment of the right hand of a figurine (KAO 38), one fragment of a bone hairpin tip (KAO 16), a fragment of limestone mortar, possible stone pestle (b1547), worked limestone fragments, calcite fragments (worked and not worked), a fragment of marble slab, two fragments of worked bone (KAO 33), lamp fragments, pottery sherds, organic remains (fish scales and bones).

Painted plaster remains were not found within the amphorae storage building. It could be inferred that the building walls had been coated with bare mud. The absence of plaster highlights the nature of the building's storage function, thus not a living space but more of a work environment. The number of iron nails was 55, 26 retrieved in room C and 24 in Room E. The nails could have been used in architectural features and other installations, such as wooden containers. On the other hand, room E was smaller and filled with amphorae aside from a reduced space; this could indicate that the nails could have been stored unless they were related to some architectural feature of the building.

The northwestern corner

The remains of mudbrick walls characterise the area. Wall F4102 is the most prominent, and it stands in the central part. It presented inclusions of fired bricks on its southern side and a row of collapsed mudbricks on its eastern side. It reached wall F4046 on its south side, but the relationship was unclear. Wall F4102 bonds on its north side with the remains of wall F4103 by one row of mudbricks. The area seems to have been impacted by an intrusion that damaged the walls to the west. The collapsed bricks on the eastern side look more like the results of disuse or re-utilisation of the space. It must be noted that the surface layer presented a large quantity of salt residue, which would have impacted the degree of preservation of the architectural features.

Small enclosed spaces were identified following the removal of the first deposit (F4095). The first was placed adjacent to the northern side of wall F4046, and it had an average internal side length of 0.93 m. It closed fully and did not bear traces of openings. The northern and western mudbrick rows consisted of one course of header bricks, whereas the eastern and southern mudbrick rows had two courses; all bricks had been laid over the soil directly. The finds retrieved from the layers excavated within this space did not provide suggestions for a particular use (pottery sherds, one iron nail fragment (KAO 270), glass shards, shell fragments, and one bronze coin (KAC 527) dating to the late 4th-early 5th century CE).

The other small space The layers within the mudbricks presented a reddish colour that could have indicated burning. Like the other small space, the mudbrick rows were constituted by the remains of one course of mudbricks.

The removal of more soil deposits revealed that walls F4102 and F4045 continued to some depth. Furthermore, a lower occupation level was uncovered approximately 50 cm below the small square spaces' level: another small space delimited by small mudbrick walls with the inclusion of fired bricks (similar to the Late Roman house's southern addition H1). To the east and partially north, the small walls delimited a space where a vessel (of which only the base remained preserved) and other pottery sherds had been placed. There was an additional division protruding from the eastern wall towards west. The excavation season's time logistics did not allow to uncover further information on the lower small space; the number of courses constituting these small walls could not be ascertained. Comparing these walls with other examples from the unit assumes that the remains were not composed of more than a few courses of mudbricks; the finding of the vessel in situ also points towards the floor surface's existence.

Regarding the area's use, wall F4102 presented a particularity: part of a vessel had been placed inside an opening on its northern side, together with a few fired bricks. Remains of organic material were uncovered in front of the opening and the vessel; it is unclear what sort of material it could have been, but its absence from the rest of the excavated area implies that it could have had a relation to the wall opening.

The findings collected from the deposits of this area (F4095, F4096, F4097, F4098, and F4099) pertain to the same category of finds retrieved from the other excavation unit contexts. It can be noted that plaster and painted plaster were missing, like in the amphorae storage building. The material culture included finds that could be associated with daily activities and finds of more personal use: pottery fragments, diagnostic and non-diagnostic glass fragments, 51 iron nail fragments, copper alloy and iron fragments (among which KAO 268), a fragment of an iron blade, possibly from an axe (KAO 291), faience fragments (KAO 58), including a rim fragment (KAO 57), two lamp fragments (KAO 1311 and b1104), animal bones and shells, four bone hairpins (KAO 9, 10, 11, and 14), worked bone fragments (fragment of a decorative element, KAO 12, and worked fragment, a fragment of a fitting with three carved segments, flat on the back, KAO 21, and KAO 28, worked fragment, possibly an inlay for a fitting), one glass bead (b1019) and half glass bead (b1137), fragments of glass bracelets (b1140 and b1143), one iron ring (KAO 175), 128 bronze coins, and slag. The quantity of slag was not much (a little over 600 g), especially when compared to the amounts retrieved from the other contexts.

A limited number of bronze coins could be dated with precision. From layer F4095, there were KAC 43, dating to the second half of the 3rd century, KAC 151, dating to 378–388 CE, KAC 193 and 206, dating to 388-403 CE, respectively, and KAC 230, dating to 425-435 CE. The soil deposit F4096 yielded KAC 46, dating to 291 CE, KAC 72 and 75, dating to 347-348 CE, KAC 121, dating to 364-375 CE, KAC 143, dating to 388–392 CE, KAC 175, 188, and 190, dating to 388– 403 CE, KAC 219,

dating to 408-423 CE, and KAC 235, dating to 425-435 CE. Finally, the legible coins from feature F4097 were KAC 59, dating to 310-320 CE, KAC 97, dating to 350-361 CE, KAC 125, dating to 364-383 CE, and KAC 216, dating to 406-408 CE.

The dating of the pottery sherds was congruent with that of the coins. F4095 yielded sherds of ARSW Hayes 61A and ARSW Hayes 67 (KAP 18), dating between 360-480 CE. Sherds of ARSW Hayes 67 were encountered in layer F4096.

The location of the finds did not provide further insight into the organisation of the space. Most of the finds that could be recorded in situ (bronze coins, hairpins, one bead, and the iron blade) were clustered towards the north-central part of the area, although that is where structural features are absent. Some bronze coins seemed to be positioned in a line that followed the direction of wall F4102, though they did not lie against the wall. These observations could indicate that there used to be fixtures that were either removed or were not preserved. If anything, the movement of people and goods took place mainly in the area between walls F4102 and F4045.

The Harris Matrix of Kom al-Ahmer Unit 4

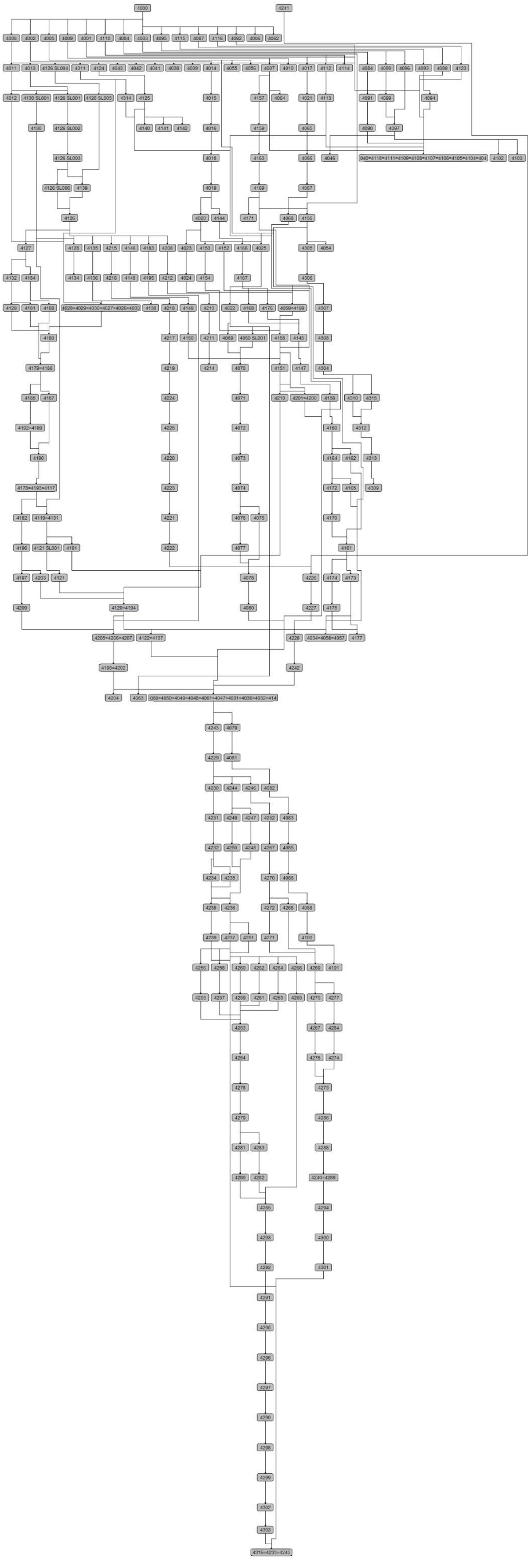


Figure 260 The complete Harris Matrix of Kom al-Ahmer Unit 4 (seasons 2014-2019). The features are indicated by their assigned numbers, from 4000 to 4316.

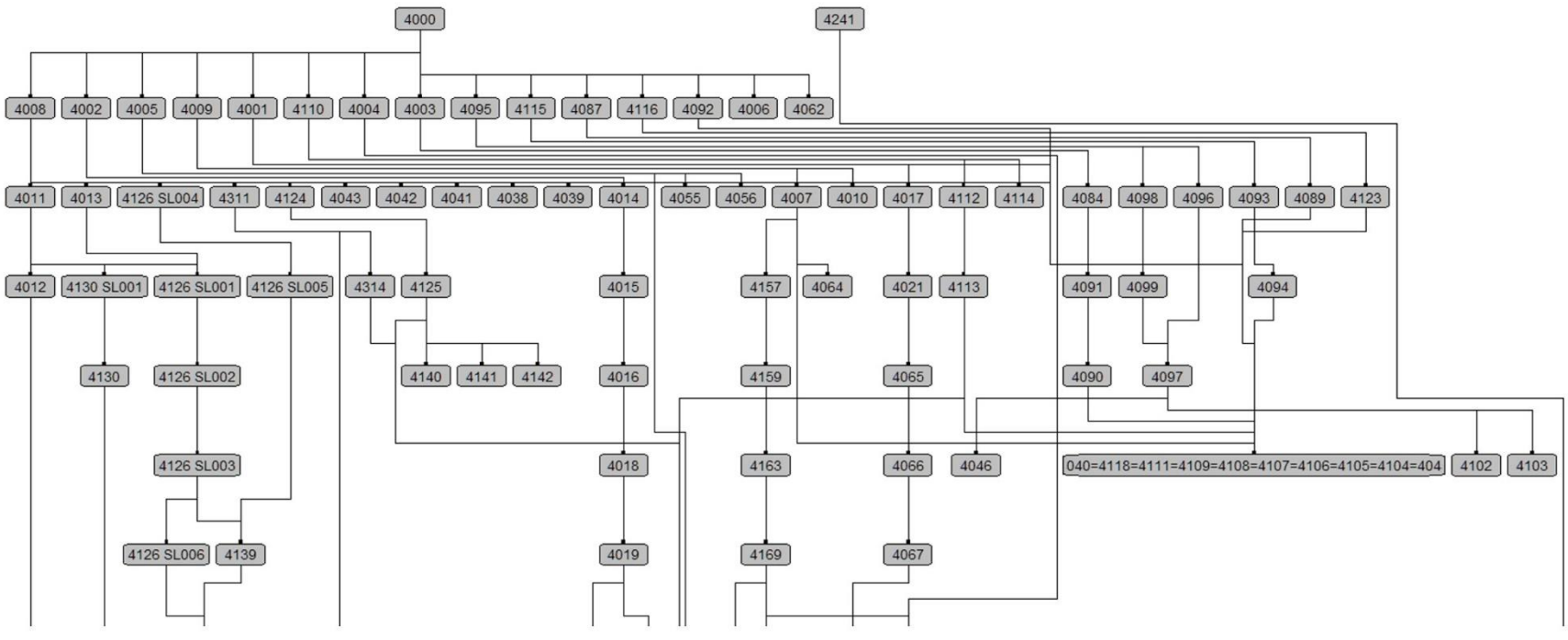


Figure 261 The matrix was subdivided into six segments to facilitate viewing; this is segment 1.

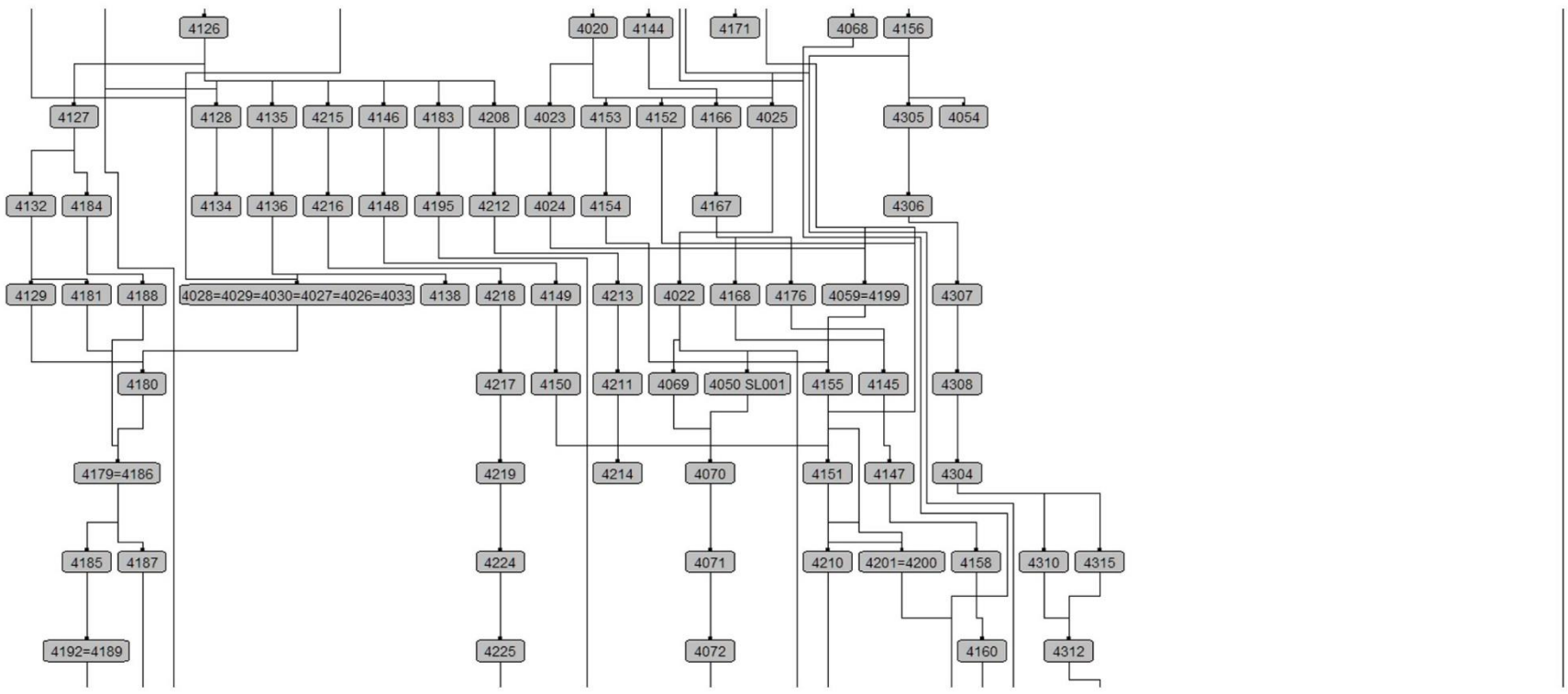


Figure 262 The matrix was subdivided into six segments to facilitate viewing; this is segment 2.

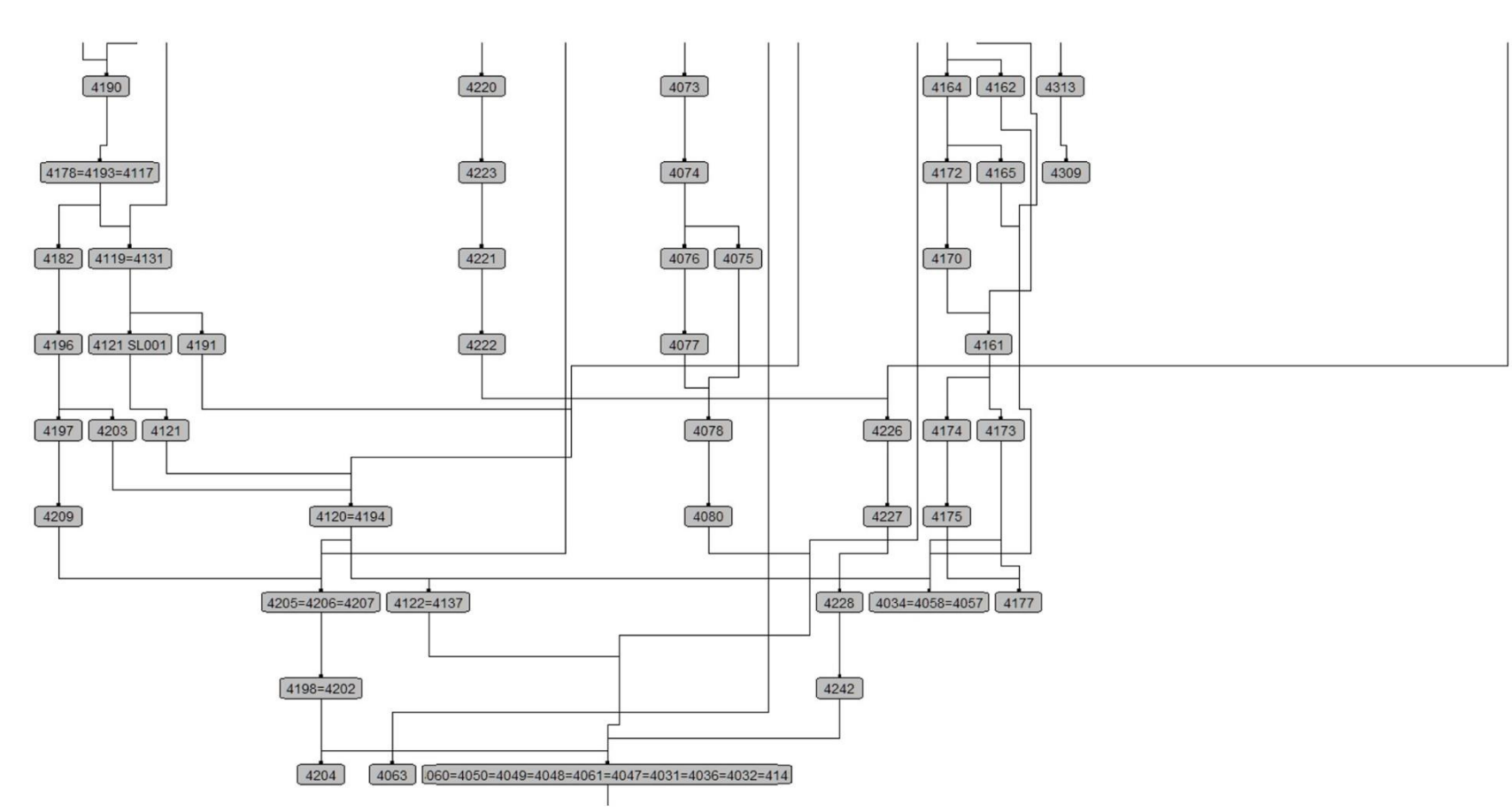


Figure 263 The matrix was subdivided into six segments to facilitate viewing; this is segment 3.

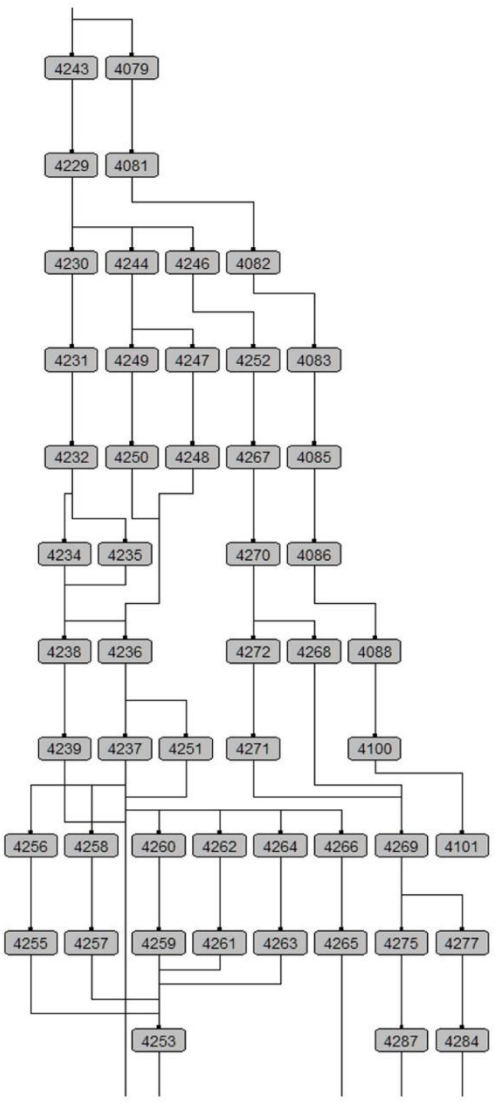


Figure 264 The matrix was subdivided into six segments to facilitate viewing; this is segment 4.

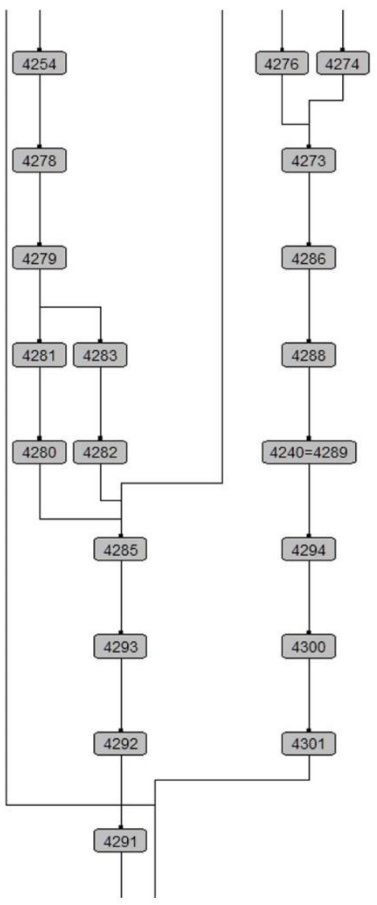


Figure 265 The matrix was subdivided into six segments to facilitate viewing; this is segment 5.

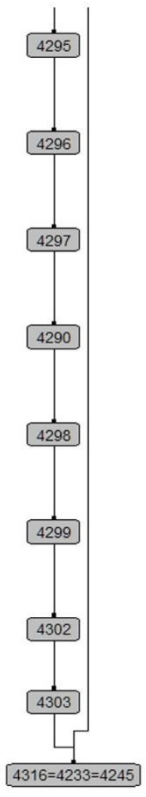


Figure 266 The matrix was subdivided into six segments to facilitate viewing; this is segment 6.

Appendix to Chapter 4

Appendix to Architectural survey

Floors

The following figures illustrate the positions of the coins identified in situ in the excavation Unit 4 according to the time division described in Table 37 of Chapter 4, *Section 4.2.4.2 – The 'coin floor'*: Ptolemaic —3rd-1st centuries BCE— (Figure 269), Roman —1st-3rd centuries CE— (Figure 270), and Late Roman —4th-5th centuries CE— (Figure 271).

Figure 269 denotes no clustering of Ptolemaic coins; Figure 267 lists the contexts and elevations of the coins, which shows that there was no clustering.

Context	ID	Altitude
Surface Layers	4.4008.213	5.434
Surface Layers	4.4011.232	6.263
Area of House Room B	4.4020.543	5.885
House Room A	4.4067.644	4.315
Northwestern corner	4.4096.1071	5.219
Amphorae Storage Room B	4.4123.1428	4.992
Third Building	4.4160.1783	5.475
House Southeastern Courtyard	4.4193.1949	5.995
House Room C	4.4215.2178	5.816
Roman Room	4.4285.2564	3.541
Roman Room	4.4299.2612	2.978

Figure 267 The contexts and elevations of the Ptolemaic coins registered in situ denotes that they were retrieved from a variety of contexts.

Figure 270 indicates that most of the Roman coins were retrieved from the area of the house. Figure 268 lists the contexts and elevations of the coins. Though the coins were recovered from a number of contexts, their positions were associated the area of the house than that of the amphorae storage building, which could denote that the construction of the house pre-dated that of the amphorae storage building. However, the elevations do not indicate any specific clustering.

Context	ID	Altitude
Surface Layers	4.4001.068	6.152
Surface Layers	4.4004.134	6.218
House Room A	4.4017.339	5.789
House Room A	4.4017.345	5.809
House Room A	4.4017.347	5.799
House Room A	4.4021.554	5.716
Wall	4.4050.708	6.452
House Room A	4.4065.591	5.570
House Room A	4.4065.607	5.158
House Room A	4.4065.612	5.234
House Room A	4.4066.622	5.023
House Room B	4.4069.712	5.989
House Room B	4.4072.899	4.924
Under House Room B	4.4075.1148	4.271
Under House Room B	4.4075.1150	4.268
Under House Room B	4.4081.1174	3.893
Under House Room B	4.4081.1179	3.713
Amphorae Storage Room C	4.4084.819	5.486
Northwestern corner	4.4095.1003	5.418
Northwestern corner	4.4096.1114	5.037
Street	4.4110.1258	5.451
Robbers' Trench	4.4126SL003.	5.745
House Southeastern Courtyard	4.4127.1855	6.194
House Southeastern Courtyard	4.4129.1355	6.052
House Southeastern Courtyard	4.4131.1921	5.976
House Southeastern Courtyard	4.4132.1870	5.984
Over Third Building	4.4149.1679	6.024
Area between House and Third Building	4.4152.1697	5.764
Area between House and Third Building	4.4155.2011	5.525
Sebakheen Pit?	4.4171.1784	2.678
House Southeastern Courtyard	4.4189.1908	6.077
House Southeastern Courtyard	4.4191.1969	5.959
House Southeastern Courtyard	4.4191.1979	5.906
House Southeastern Courtyard	4.4191.1981	5.730
House Room C	4.4215.2105	5.873
House Room C	4.4219.2131	5.440
House Room C	4.4219.2194	5.480
House Room C	4.4219.2195	5.439
House Room C	4.4219.2200	5.227
House Room C	4.4225.2221	5.264
House Room C	4.4228.2377	4.305
Outside Roman Room	4.4240.2354	3.541

Figure 268 The contexts and elevations of the Roman coins registered in situ denotes that they were retrieved from a variety of contexts.

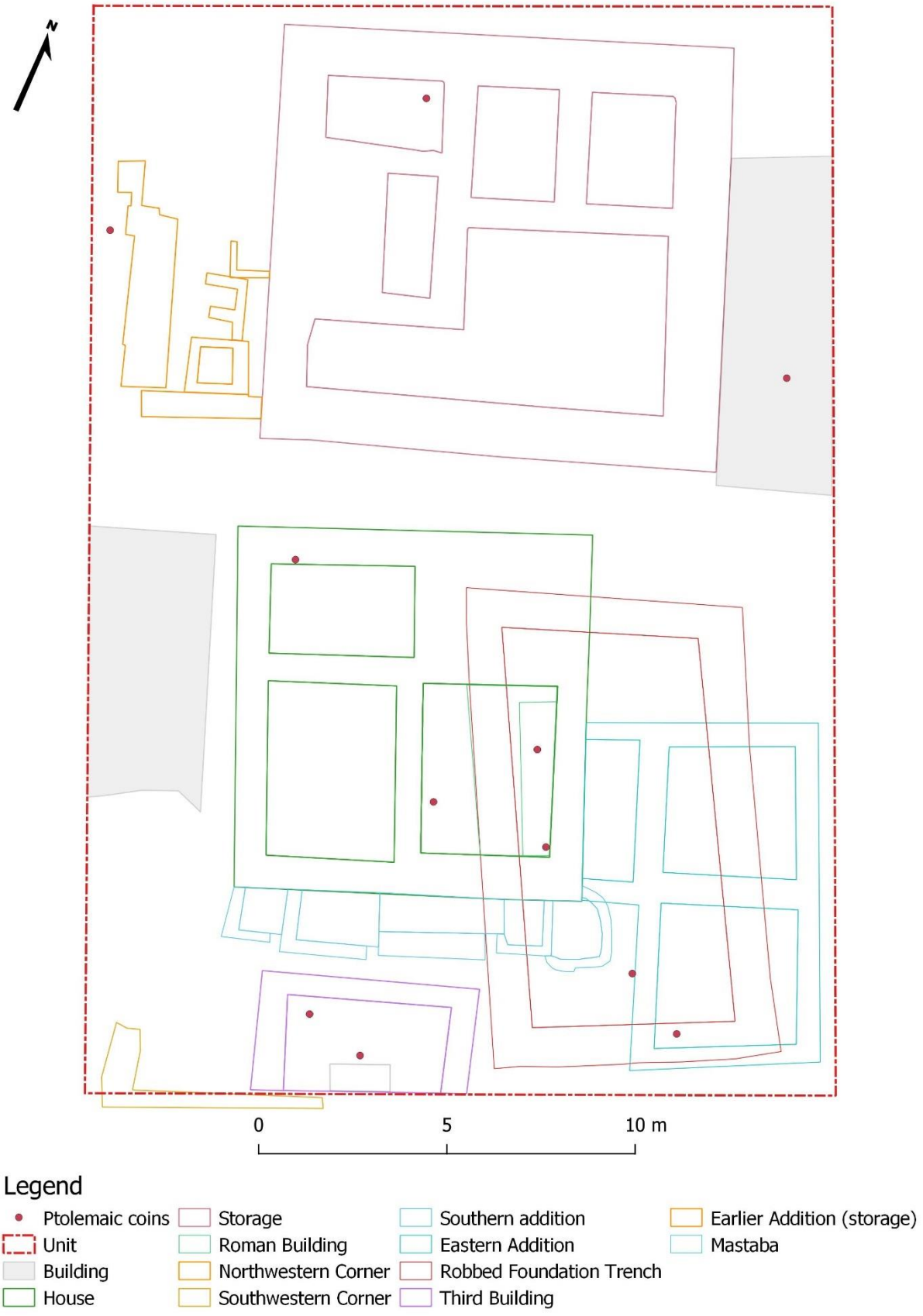


Figure 269 The position of the Ptolemaic coins retrieved in situ in excavation Unit 4.

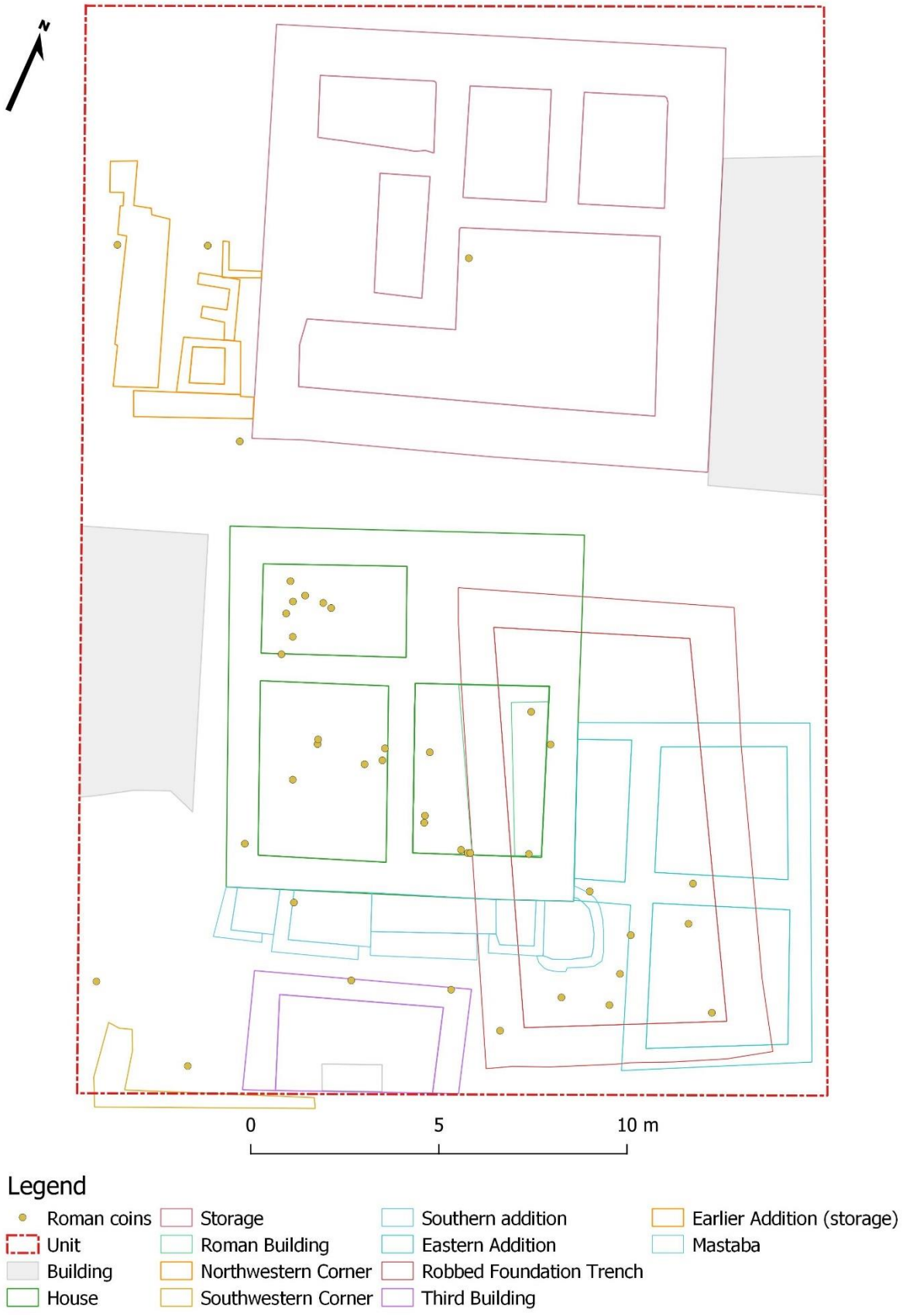


Figure 270 The position of the Roman coins retrieved in situ in excavation Unit 4.



Figure 271 The position of the Late Roman coins retrieved in situ in excavation Unit 4.

Stairs

The house would have had to be equipped with a staircase to access the upper storeys. The northeastern corner of the house could have been a part of the staircase as it provided the necessary space; the mudbrick feature (F4142) would have been part of the staircase's architecture. The cut of the robbed foundation trench severely impacted that part of the house, leaving few hints. This intervention is visible when observing the remains of wall F4032, the eastern perimeter wall, which was damaged to the point that it was almost entirely removed, leaving traces on the eastern profile.[179]



Figure 272 View of the damaged part of wall F4032 in the staircase area. The blue line indicates the cut by robbed foundation trench F4126.

Examples of staircases in Late Roman and Early Medieval houses include a central pillar around which the stairs ran (Figure 273); this type was the most used in the houses of the Fayum (Davoli 1998: 355). If we assume that the house's staircase would have had a square pillar, the quadrangular remains of F4142 could be what is left of the pillar.

[179] The deposit of fragmented mudbricks within this area could represent the remains of collapse that might have resulted from the digging of the robbed foundation trench.

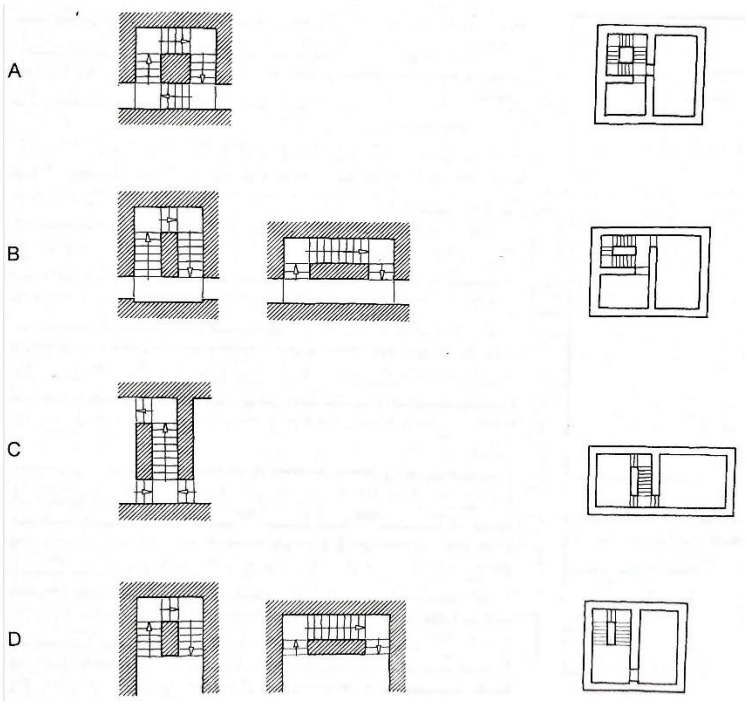


Figure 273 Plans of Late Antique and Early Medieval staircases *(Arnold 2003b: 182, figure 115)*.

An interpretation of how the space could have been managed with a central pillar has been explored using an earlier version of the 3D model developed for the house's tentative reconstruction. Figure 274 shows the space that could have been available for the staircase; said space was created by tracing the other walls of the house's lengths. The space was measured, and the results showed that it would have a span between roughly 60 cm to 90 cm, which would have been sufficient for human passage.

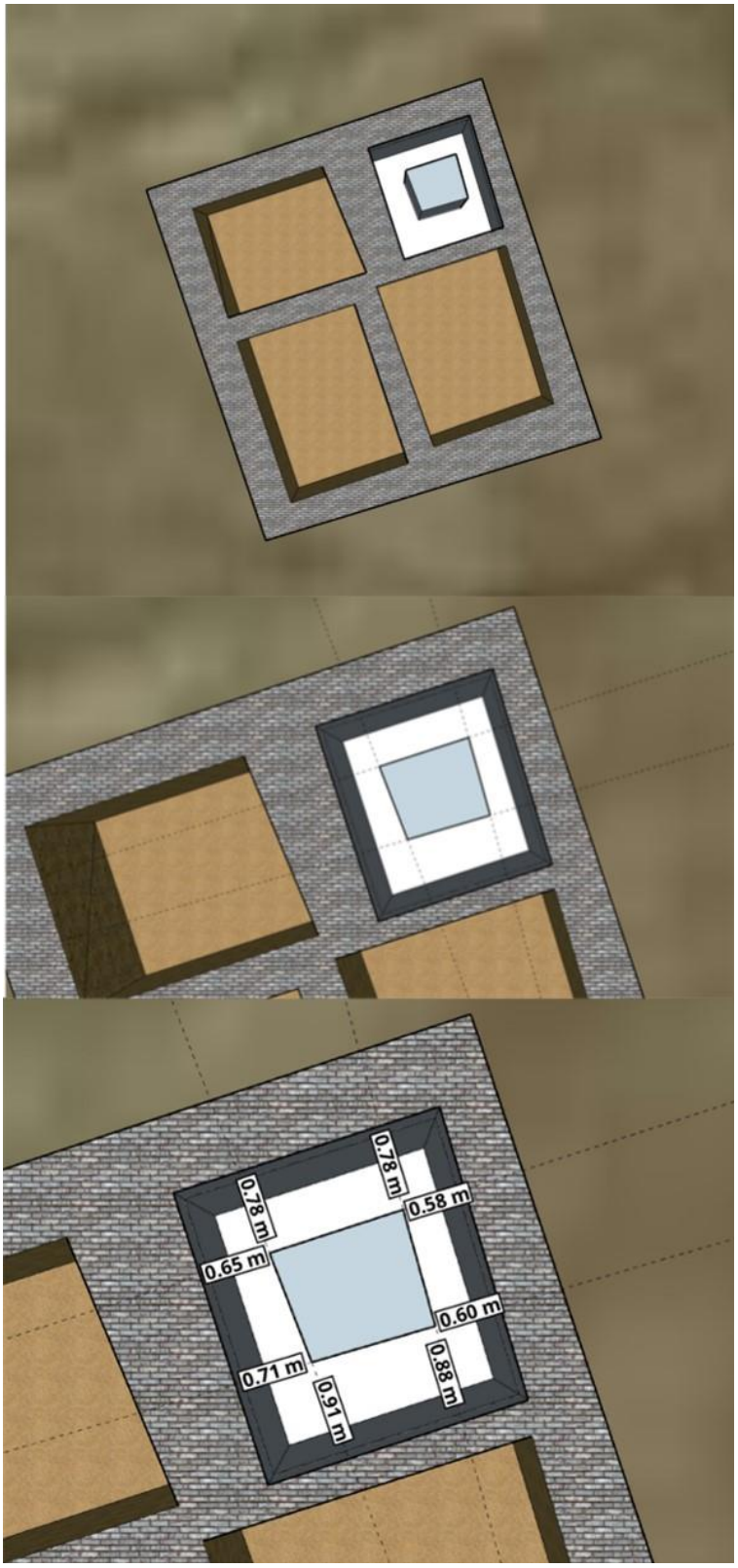


Figure 274 An early version of the 3D model of the house with the render of the possible central pillar in light blue (F4142) (above) and the possible available space between the pillar and the walls in white (middle); the spaces between the pillar and the walls were measured (below).

The measurements are tentative and should only be used as an indication. The model shows a few incongruencies that influence the staircase: wall F4036, on the south side of the staircase, excessively reduced to approximately 40 cm, and wall F4143, west of the staircase, ranging from 90 to 110 cm, which could generate some issues with the stability and the upper storeys' weight unload. Nevertheless, this reconstruction allows us to understand how the staircase could have been integrated within the house according to the contemporary architectural style. It cannot be said that the round-stairway-with-pillar was precisely the type of staircase used; the robbed foundation trench F4126 severely impacted that part of the house, to the point that a large portion of the wall F4032 (eastern wall) had been removed. As such, it is challenging to understand whether F4143 represents the remains of the staircase pillar or the staircase per se (due to the two possible steps). The lack of a connection between the rooms is suggestive that the stairs were located at a higher elevation than the preserved brickwork.

Another possibility for the staircase is that the mudbrick feature (F4142) represents the remains of two steps of the staircase. Evidence for mudbricks arranged in a semi-arch was noted in the northern façade of wall F4036 (Figure 275), reminiscent of vaults, albeit semi-vaults (see Figure 276 for comparison). Indeed, vault remains can often be detected due to the oblique position of the bricks on the walls (Spencer 1994: 317–18). F4142's tilted course of bricks is visible in the eastern profile of F4142 in concomitance with the semi-vault (Figure 277). This brick conformation recalls the staircases of several houses at Karanis (Figure 278).

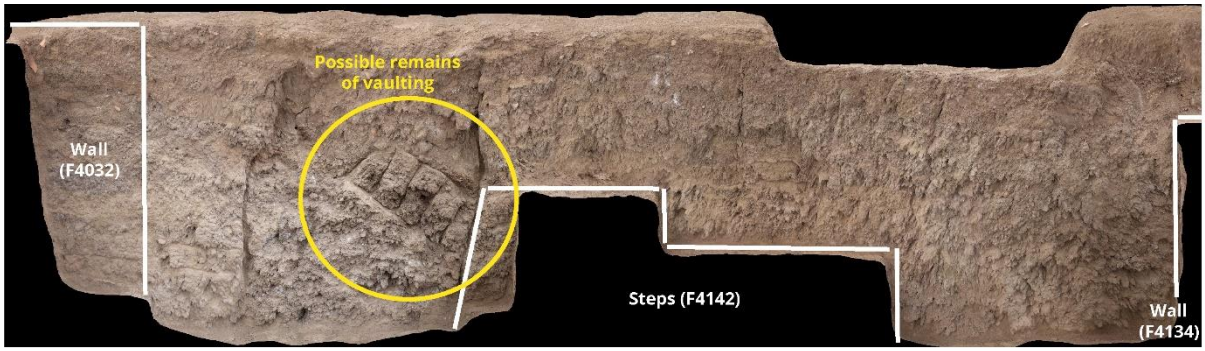


Figure 275 Profile view of the staircase area (facing south). The yellow circle indicates the possible remains of vaulting.



Figure 276 Examples of vaults in Late Antique residences (Djeme, Medinet Habu, Thebes). The 'print' of the bricks forming part of the vault is visible *(Brooks Hedstrom 2017: 192, figure 44)*.



Figure 277 Titled course of mudbricks on the eastern side of the possible steps (F4142).

The missing element would be the central pillar. However, a rectangular dip whose base was constituted by the wall's mudbricks could have somehow been associated with the staircase. Similar evidence was recorded from the amphorae storage building: a rectangular dip within a part of the storage without rooms.[180] The thickness of the amphorae storage building walls is greater than that of the house's walls, thus advocating the need for a staircase to access the upper storey(s).

[180] That part of the structure is approximately 3.20 x 3.00 m wide, including the walls surrounding it to the east and west. The northeastern part of the house, including the surrounding walls, is approximately 4.65 x 4.00 m.

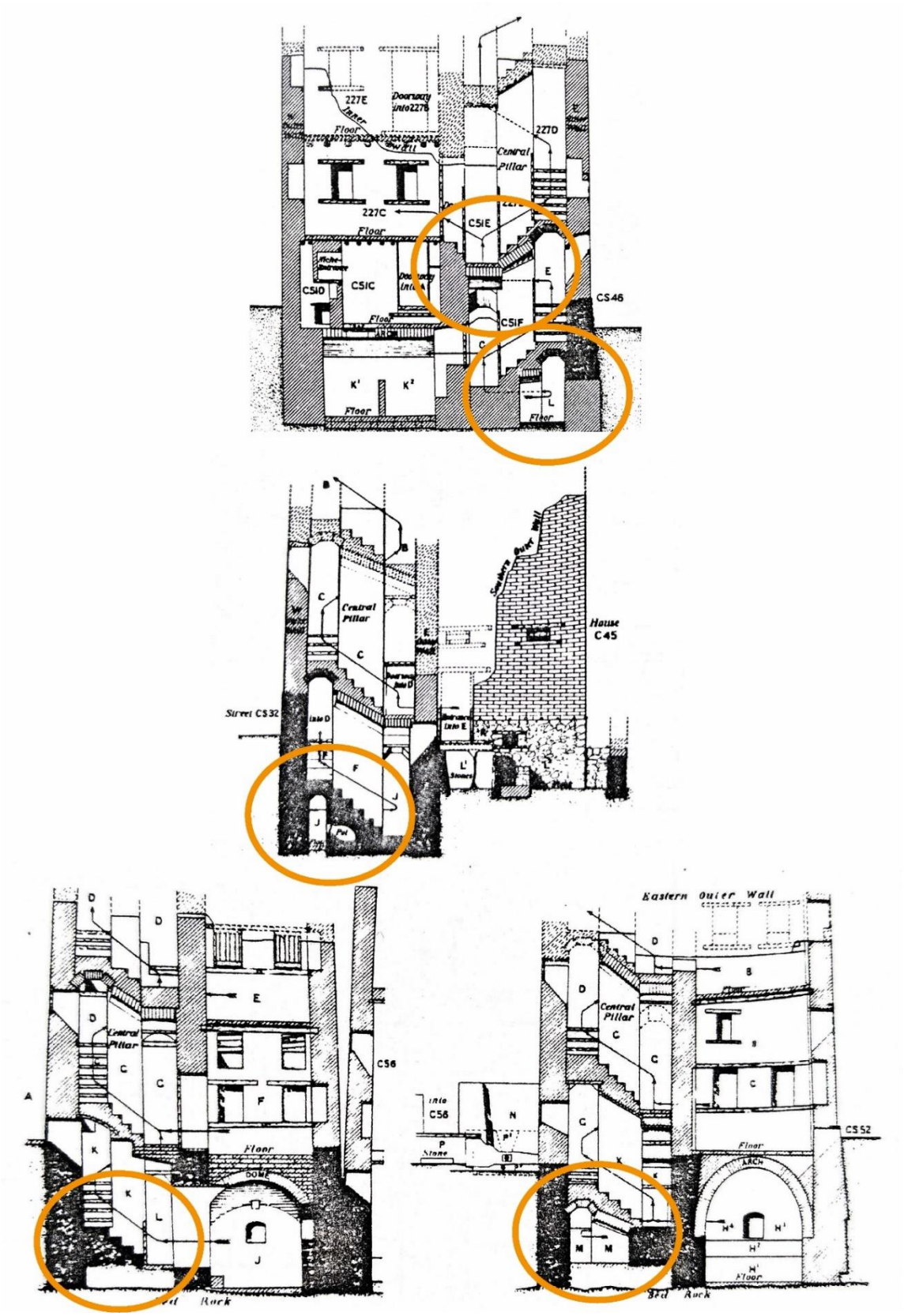


Figure 278 Elevation of a sample of Karanis houses whose staircase architecture exhibits the use of vertical and tilted mudbricks: Karanis house C50/C51 C level looking north (top), Karanis house C43 looking north (middle), Karanis house C62 looking north (lower left) and east (lower right) *(Husselman 1979, plans 28, 32, and 41)*.

Entrances

No entrance remains were identified; this absence has been attributed to the state of preservation of the building (the same was noted for several of the houses investigated at Djeme (Hölscher 1954: 37–8)). As most of the house walls were uncovered, no signs of entrances nor spaces that had been filled later were noted. It was inferred that the entrances would have probably been placed at a slightly higher level than the preserved remains, a level that did not necessarily coincide with the internal floor. Modern Egyptian houses in rural contexts often have raised thresholds for the practical purpose of keeping animals, water, and presumably dust out of the house (Correas-Amador 2013: 89, 203). Davoli (1998: 355) noted that the houses of the Roman period settlements in the Fayum usually had one sole entrance, raised from the ground and accessible via stone steps. Marouard (2012: 125) also wrote that the ground floor of the Late Period and Hellenistic tower houses would have been higher than that of the external space, and thus the entrance door would have been raised and accessible via an external staircase. Lehmann (2021: 8) suggested that the entrances to Ptolemaic tower houses would have been on the first floor and thus accessible only via stairs, and added that this applied to the houses of the Roman period too. The houses at Deir el-Medina, though pertaining to a different period, exhibited half a metre of difference between the level of the internal floor and that of the street, with the latter being higher (McDowell 2001: 11).

It was considered whether the mastaba F4063 —and its later addition F4210— might have been related to an entrance, possibly as steps providing access. Examples of outside stairways leading to the entrance thresholds have been documented at Karanis: they were of three or four steps and constituted by stone slabs and mud; in some cases, they could reach a height of 75 cm (Boak and Peterson, 1931, p. 11) (Figure 279, Figure 280, and Figure 281). Similar high entrances were noted in Philadelphia and Medinet Maadi (Nowicka 1969: 111; Vogliano 1938: 544) (Figure 282).



Figure 279 Karanis, the entrance of house C 88 from street CS 100; note the difference in the height of the door's frame compared to the street level (Boak and Peterson, 1931, plate XL, figure 80).

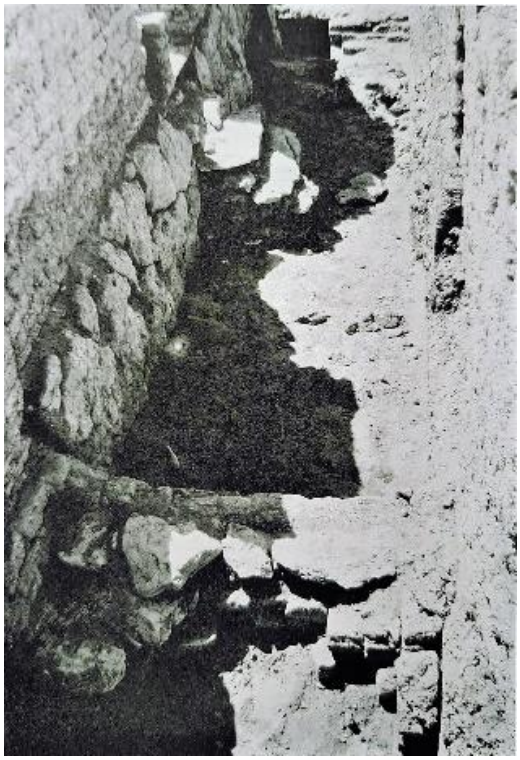


Figure 280 Karanis, passage BS 3 in Area G. Note the rough flat stone slabs constituting three, possibly four steps leading into room B 1 A (Boak and Peterson, 1931, plate VII, figure 13).



Figure 281 Karanis, house B 40, Area G: detail of three stone steps at the house's entrance (Boak and Peterson, 1931, plate XXII, figure 43).



Figure 282 Philadelphia is an example of a raised threshold *(Nowicka 1969: 111, figure 66)*.



Figure 283 Example of a raised entrance threshold from an uninhabited mudbrick house in the town of Qift, Upper Egypt (N. Larosa 2018, personal photograph).

The lack of connection between the area of the stairway and the preserved rooms suggests the possibility that the house had been equipped with floor trap doors (Figure 143). Examples of such trap doors have been recorded in the Fayum (Davoli 1998: 141) and Djeme (Hölscher 1954: 46,49, see also plate 41). There were no specific finds linked to the possible entrance thresholds and doors, though it can be assumed that the worked stone finds might have been related to architectural features such as doors. Doors would have required lintels, and examples from other sites indicate that the materials used for that would have been wood or stone. Limestone door sockets were recorded in situ in Hellenistic domestic structures at Kom al-Ahmer, but none were retrieved from Unit 4.



Figure 284 Karanis, wooden trap door leading into chamber II 201 V *(Boak, Peterson and Haatveldt 1935, plate V, figure 9)*.

The absence of doorways and indications of their position within the Late Roman house's ground floor impedes further analysis of the rooms' connections, the generation of access diagrams, and understanding of which spaces were architecturally more shielded than others. Furthermore, if we consider the strong possibility that the house had upper storeys, those rooms would need to be included in the analysis as they would have ideally represented the building's more shielded and private spaces. Nonetheless, when generating the 3D representation of the house, it was decided to include a doorway in the southern façade of the house as papyri evidence has indicated that houses could have had more than one entrance, which could be accessible via the staircase and the courtyard, respectively, in addition to the main entrance (Huebner 2016: 162). The main entrance could be placed on the street, but it was not usually the case for the Late Roman and Byzantine houses (Grossmann 2007: 131).

Other

It is plausible that the house would have been equipped with entrances and windows, roofing, and fixtures that would have required building materials other than mudbrick (Figure 285 and Figure *286*). Gazda (2004: 23) noted that the ceilings and roofs were flat, whereas the ceilings of underground

rooms would either be vaulted or domed. Nonetheless, no traces of collapsed mudbrick, wood, and other organic remains (aside from charred twigs found with hearths and furnaces) were detected.

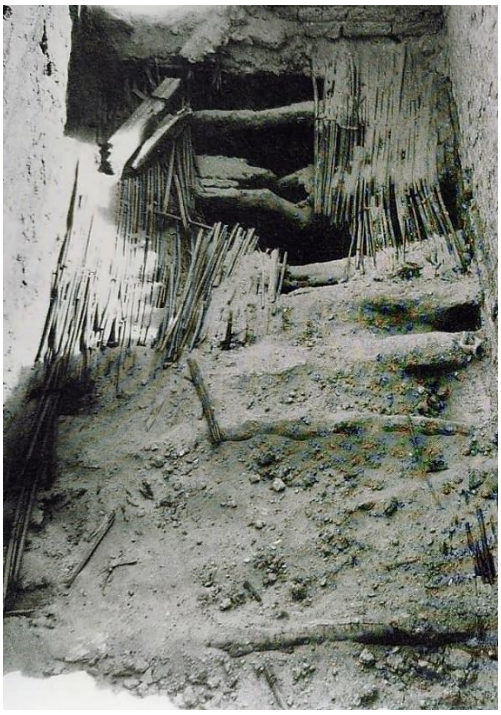


Figure 285 Room BC 72 H in area G; view of the ruined floor showing the use of wood and other organic materials (Boak and Peterson 1931, plate XIX, figure 37).



Figure 286 Pen B 5 K, area G, view of the roof covering the pen, showing the use of wood and other organic materials (Boak and Peterson 1931, plate XIX, figure 38).

Appendix to WFH (work from home): small scale workshops

The amphorae storage building

- The Officina del garum degli Umbrici was a modest courtyard house whose rear garden was employed for commercial purposes during the 1st century BCE (Figure 287). At the same time, its front room that gave access to the street may have been used as a shop (Curtis 1979). Between 47 and 60 amphorae were found in the rear garden; they were of different types, some of which were not local and had been placed upside-down (Curtis 1979: 13; Peña 2007: 82–85).

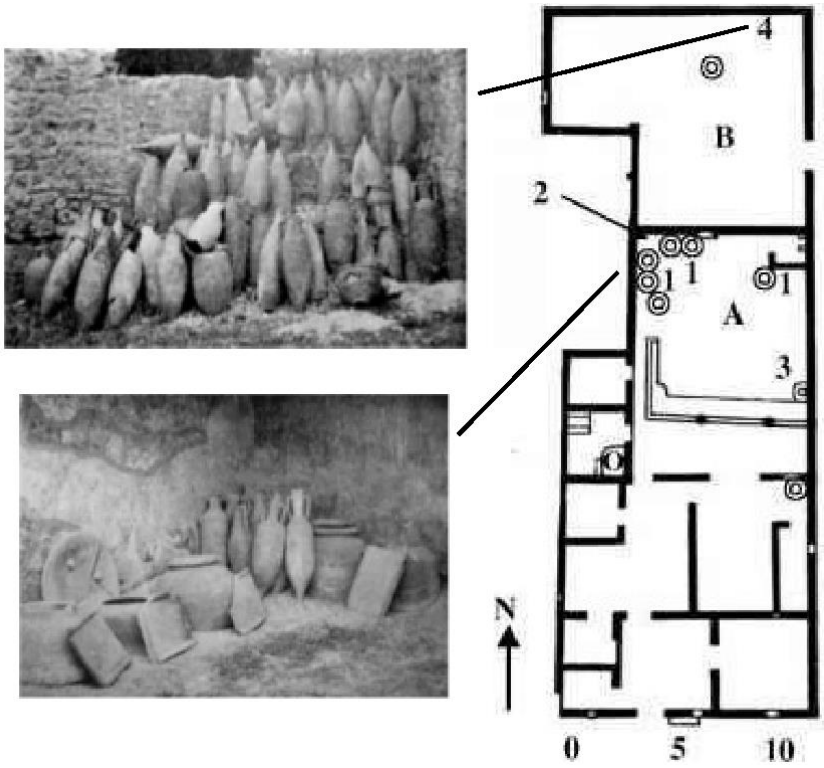


Figure 287 Composite image: the plan of the Officina del garum degli Umbrici (to the right) (Peña 2007: 5.1), photographs of dolia and amphorae found in the courtyard (lower left) (Curtis 1979: 4) and amphorae stacked in the garden (Curtis 1979: 7).

- The Casa di Q. Mestrius Maximus and the Lupanar di Amarantus are small atrium houses linked to another small building of unclear type built during the mid to late first century BCE. The complex was interpreted as a facility for the storage and distribution of Eastern Mediterranean wine; in its later phase of occupation, it was used more like a commercial venue rather than a residential one. At least 58 amphorae were found arranged in nine rows in the north-western corner of the atrium. They had been set in an upright position, except for two amphorae of the first row. Different typologies of

amphorae were identified, most of which were wine vessels from the Aegean. They were interpreted as a stock of amphorae filled with contents, possibly ready to be shipped. Between 15 and 20 more amphorae were found stacked and placed on their sides inside the impluvium, most of which were Cretan amphorae. Their position indicates that they had been filled with water and left to soak in the impluvium (Berry 1997a: 184, figure 1, 1997b; Peña 2007: 88–90).

- The Casa del Vinario (1st century CE) was an atrium house with a shop in the two front rooms and a rear garden. One hundred fourteen specimens of amphorae (from intact to substantially intact) were retrieved chiefly from the garden. Twenty-nine were found upside-down inside room O, which was described as a medium-sized room with access to the rear garden (Jashemski 1967: 194).

- The Casa della Nave Europa complex was composed of two joined houses with a large rear garden; they were built over the remains of an earlier house levelled around the mid-1st century BCE. Many amphorae were observed on the premises, mainly in the portico. Jashemski (1974) argued that, although there is no evidence, the complex could have been a market garden where fruits, nuts, and vegetables were grown and eventually packaged in the amphorae. A double basin present in one of the houses may have been used to clean the vessels.

Appendix to 'Absentees' in the material culture

Writings

In general, it has been argued that literacy would have been relatively widespread, even if at a basic level as several activities would have required it, particularly in a society that was keen on bureaucracy to keep a record of administrative matters of all kinds (Papaconstantinou 2012: 213; Wipszycka 1984: 280, 296). Even so, it seems that it would not have been an absolute necessity nor a symbol of social status. Wealthy members of society would not have automatically learned to read and write and did not require to do so to carry out their dealings, which was most often the case; they could have resorted to public scribes; even individuals who could read and write themselves frequently selected this option since they preferred to entrust the drawing up of essential documents to professionals (Bagnall 1993: 259; Wipszycka 1984: 288). Scribes would have been in demand even because non-business communications relied heavily on letter-writing; epistolary interaction was widespread and accessible to all regardless of their social position (Ermatinger 2004: 18). Both Wipszycka (1984: 288) and Bagnall (1993: 250) report two different examples of wealthy individuals who could not write: the first refers to a wealthy individual from Djeme, owner of houses and land plots, who could barely write his initials, while the second mentions the husband of Hermione of Hermopolis, who required help to sign documents despite he was the owner of several house plots and thus would have needed to deal with written contracts regularly (P.Lond. V 1651 (363)).

For craftspeople and retail merchants, the incapability of reading and writing would not have been a detriment to their careers as they could have accessed the services offered by public scribes (Bagnall 1993: 247, 250, 259); this could have been the case for the Late Roman house of Kom al-Ahmer and also for the amphorae storage building, which is more evidently devoted to commercial activities. It is possible that the documents may have been stored elsewhere rather than in these buildings; for instance, the archive Dioskoros of Aphrodito, who was a government official and poet, included documents of the family deals as well as materials from the town records (Broux 2019: 401; Ruffini 2018a: 9). In addition to the absence of papyrological evidence —expected in a site in the Delta— no ostraca were found. This absence may also have environmental causes as there currently are no publications of ostraca hoards from the Nile Delta.

Despite the absence of these documents, large quantities of written finds do not necessarily correspond to a higher number of literate individuals; if anything, they attest to the possibility of carrying out written transactions and the availability and will to write or dictate documents either business-related or private. Ostraca would have been used for lesser relevant documents, for example, simple 'I owe you' contracts (P. Kelly 2020, personal communication, 15 September); indeed, ostraca

were the most common writing material found at the site of Djeme (Wilfong 2002: 18), whose population left behind a wealth of written material that led researchers to debate on the number of literate inhabitants. Steinemann's (1974) analysis led him to propose a high number of literate individuals in Djeme, which has long been regarded as exaggerated (Baines 1983: 585, 595; Wipszycka 1984: 286–87).

Therefore, the absence of written materials from the house and its neighbouring buildings does not propose a valid argument for the literacy or illiteracy of the inhabitants of the buildings. The possibility that they may not have needed to engage in written contracts does not seem too plausible given the activities that they were carrying out and the possibility that the house might have been rented (as was often the case); rather, it could be that they did not require to store written evidence of their transactions. Regrettably, the preservation issue and survival accidents leave an incognita regarding the possible presence and occurrence of papyrological material in the Delta. Additionally, papyri and valuable objects were commonly identified by archaeologists in the basement rooms of houses – at least in the Fayum sites – (Davoli 1998: 140); the forsaking and filling of the underground rooms, following abandonment, would have included the removal of the materials stored in those rooms. Coins were dropped and left behind on the ground floor, but the same cannot be said for possible ostraca if any had been redacted or exchanged within those rooms.

On an ending note, the absence of written records does not allow to infer hints of possible biliteracy (Greek and Coptic), which is deemed to have been common among Egyptians during Late Antiquity (Papaconstantinou 2012: 213). Indeed, Coptic script had begun to be used in writings, even private letters, more prevalently after 330 CE; before that, it appears to have been explicitly employed for translations of sacred texts (Bagnall 1993: 240).

Appendix to Chapters 3 and 4

Artefacts

Ceramic finds

Pottery

The pottery evidence from the contexts of Unit 4 excavated during the seasons 2014 to 2016 has been published by Mondin (2019: 61–338). The evidence retrieved in the following seasons is in course of publication. Therefore, the evidence presented here regards the published contexts, namely the surface layers, Room A, the upper fills of Room B, and the amphorae storage building (Figure 288).

The excavations at Kom al-Ahmer yielded various finds ranging from Egyptian utilitarian ware, amphorae, and fine ware. The imports were mainly amphorae; most came from the modern southern coasts of Western Turkey, Cyprus, and the northern coasts of Syria (LRA 1)[181] (see Mondin 2019: 147–49), Palestine (the Gaza region) (LRA 4)[182] (Bonifay et al. 2002: 57–8; see Mondin 2019: 150–52; Peacock and Williams 1986b: 196–199; Pieri 2005: 103–05, 109–114), the Aegean Sea (Kapitän 1[183] and 2,[184] Cretan Amphorae AC 1A and AC 1B)[185] (see Mondin 2019: 152–53). Imported fine wares mainly consisted of African Red Slip Ware (ARSW) and Late Roman D (LRD)[186] (see Mondin 2019: 81–2, 85–6). Egyptian fine ware was also present, namely Alluvial Clay Red Slip Ware (Egy FW)[187] (see Mondin 2019: 93–4) and the Aswan productions,[188] and these were found mainly in the other excavation units on the central mound of the site (see Mondin 2019: 89).

[181] They date between the 4th and 7th centuries CE (Empereur and Picon 1989: 236; Pieri 2005: 70–2; Şenol and Alkaç 2017).
[182] They date between the 4th and 7th centuries CE (Bonifay et al. 2002: 57–8; Majcherek 1995; Peacock and Williams 1986b: 196–99; Pieri 2005: 103–05, 109–114)
[183] They date between the 2nd and 4th centuries CE (Marangou-Lerat 1995; Palma and Panella 1968: 550; Peacock and Williams 1986b: 214–15; Rizzo 2014: 327–28).
[184] This type of amphora was common in the 3rd-late 4th centuries CE (Majcherek 2004: 231, 2007a: 16–18; Marangou-Lerat 1995; Peacock and Williams 1986b: 193–95).
[185] They date between the 1st and 4th centuries CE (Empereur, Markoulaki and Marangou 1989; Majcherek 2007a: 11–13; Marangou-Lerat 1995: 75).
[186] See Atlante I 1981; Bonifay 2004, 2016; Hayes 1972, 1980, 2008; Mackensen 1993; Meyza 2007; Poblome and Fırat 2011; Reynolds 2011.
[187] See Hayes 1972: 397–99.
[188] See Hayes 1972: 387–88.

Context	Fine Ware		Utilitarian w.		Amphorae		Misc.
	Imp.	Fgy.	Imp.	Fgy.	Imp.	Fgy.	
CX1	-	2	1	486	276	528	3
CX2	24	8	5	1752	522	976	4
CX3	29	3	2	540	143	2248	0
UFC-U4	152	55	3	5738	2643	4871	3
Unit 4	205	68	11	8516	3584	8623	10

Figure 288 Pottery quantification of Unit 4, compared with Units 1 and 2. CX1 refers to the house's Room A, CX2 to the upper layers of the house's Room B, CX3 to the amphorae storage building's Room C, and UFC-U4 the superficial deposits *(Mondin 2019: 64, table 2.2)*.

According to Mondin, it was not possible to distinguish the different uses of the house's room based on the pottery assemblages (compare the assemblages from the house's rooms with those of the surface layers in Figure 289); there was much common ware pottery and much-mixed material that did not point towards a specific use (C. Mondin 2020, personal communication, 28 March). The finding of a significant amount of painted plaster in Room A has pushed forward the possibility that it could have been an exposed room, visible to passers-by, possibly a *taberna*, also considering the remarkable distribution of amphorae even within the layers of the house. Lesser painted plaster remains and a decrease in the quantities of amphorae in Room B might indicate a storage function. Pottery retrieved from the 'corridor' denoted a decrease in tableware types.

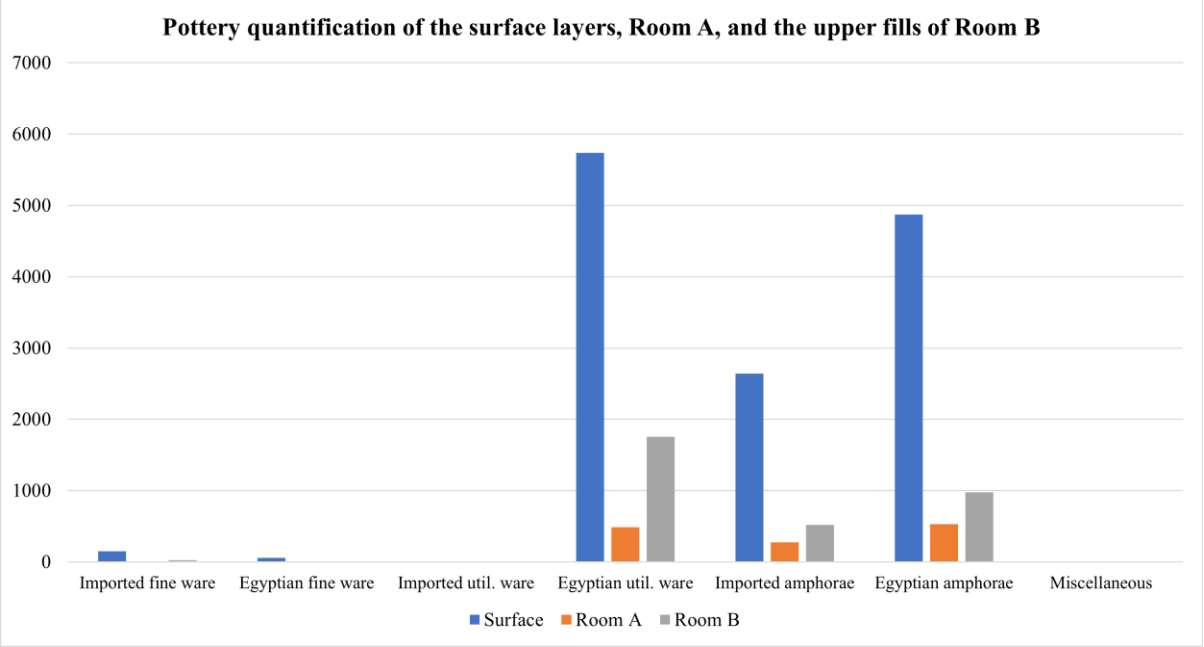


Figure 289 Pottery quantification of the surface layers of Unit 4, the house's Room A, and the upper layers of the house's Room B *(after Mondin 2019: 67, table 2.5, 2019: 68, table 2.6, 2019: 69, table 2.8)*.

The Third Building presented a pottery assemblage that highlighted a casual dispersal of material with very few diagnostic fragments and small sherds. The usage of the LRA 4 amphora base as a fixture for temporary roofing, the presence of organic materials, and the inconsistent ceramic evidence support the interpretation that the room had a usage as an animal pen. The ceramic findings do not point towards a particular use of the northwestern.

Some specimens bore signs of burning, whereas some had none; this inconsistency implies that they served various functions from cooking to storage (Mondin 2019: 104). One of these examples was retrieved from the amphorae storage building: aside from not having signs of burning, the location within a building of purely commercial nature packed with containers implies that it would have had a similar use, including an anthropomorphic vessel (KAP 1089) (Figure 290) retrieved from the amphorae storage buildings' Room C (Mondin 2019: 68, 147, 263). From how the materials are preserved, it is not possible to distinguish which were used for cooking and which for storage because many of the preserved sherds, such as rims, would not present traces of burning. In any case, pottery specimens should not be considered cooking ware solely judging from their shape alone. They could be employed for different activities (C. Mondin. 2020 and 2021, personal communication, 28 March, and 10 January).

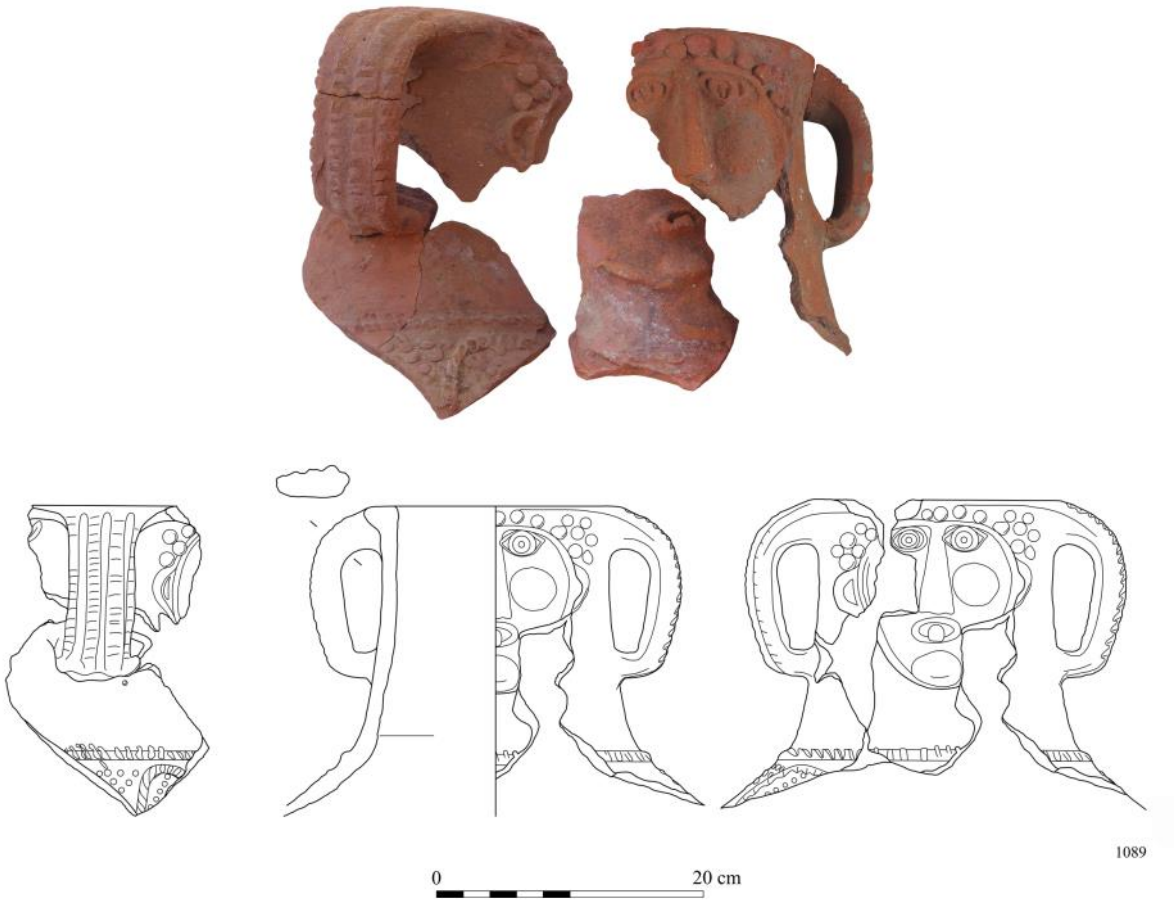


Figure 290 KAP 1089, anthropomorphic amphora *(Mondin 2019: 263, plate 2.98)*.

The chronological information provided by the pottery remains does not include anything dating after the 5th century CE. The most recent dating pottery evidence was a sherd of ARSW Hayes 91A[189] from the robbed foundation trench F4126 (second half of the 5th century CE) (Mondin 2019: 65). The numismatic evidence agrees with the pottery; overall, almost no coin specimens after those issued by Theodosius II-Valentinian III were retrieved from Unit 4 (Asolati and Crisafulli, 2019, pp. 13–14). The exception is a bronze coin (b1624(6)), which could date to 539-540 CE, to the reign of Justinian I. Though the dating is not certain due to the poorly preserved conditions of the coin, the find was retrieved from a superficial layer (F4136) east of the house, which does not locate it in a secure context. A coin found on the ground surface around Unit 4 was attributable to Marcian (KAC 239) and dated to the mid-5th century CE (450-457).

[189] See Hayes 1972: 140–44.

The curious case of the lamps

45 (possibly 46) lamp fragments were recovered from all the excavation unit contexts; no complete specimen was found. All were made of terracotta aside from two specimens which were of stone. Five lamps (fragments) from Unit 4 have been published so far (Mondin 2019: 163) (Figure 291 and Figure *292*); they all pre-dated the period of the context (5th century CE), which is odd. Mondin (2019: 137) discussed the presence of over ten small dishes with plain rims and a blackened lips that could have been used as oil lamps (KAP 914, 915, 916, 917, 918, 919, 920, 923, 924, 925, 926, and 927). Not all of the small dishes presented traces of burning, which implies that they could have had multiple utilisations — for instance, lids — and not merely as lamps (C. Mondin 2021, personal communication, 10 January). Mondin's current suggestion for the paucity of decorated and fine-made lamps in the area of the Late Roman house (and the amphorae storage building) is that it might be related to the domestic and commercial nature of the area (Mondin 2019: 165).

The other 39 fragments pre-date the 4th-5th centuries CE (C. Mondin 2021, personal communication, 10 January). The absence of 4th and 5th centuries lamps from the contexts of Unit 4 contrasts with the evidence from the Kom's central mound, where 4th-5th century CE lamps were present in Units 1 and 2 (Mondin 2019: 163). This particularity, combined with the finding of small dishes that could be used, among other purposes, like lamps, indicates that the inhabitants of the neighbourhood of the Late Roman house chose not to purchase decorated lamps. This fact provides strong indicators of the nature of the neighbourhood within the settlement. If we consider the presence of dwellings, commercial areas, and small scale production facilities, the neighbourhood can be identified as the peri-urban area of Roman settlements, the in-between zone of the city dividing the central part from the suburban districts (Mondin 2010: 133). There is further contrast with the Roman Room, a context with prestigious material culture where contemporary lamp fragments were retrieved. This data indicates a shift in the settlement's urban organisation between the 2nd-3rd and 4th-5th centuries CE (C. Mondin 2021, personal communication, 10 January). Though it could be possible that glass lamps may have been used too, the study of the glass remains has not identified, so far, remains that could point towards this eventuality.

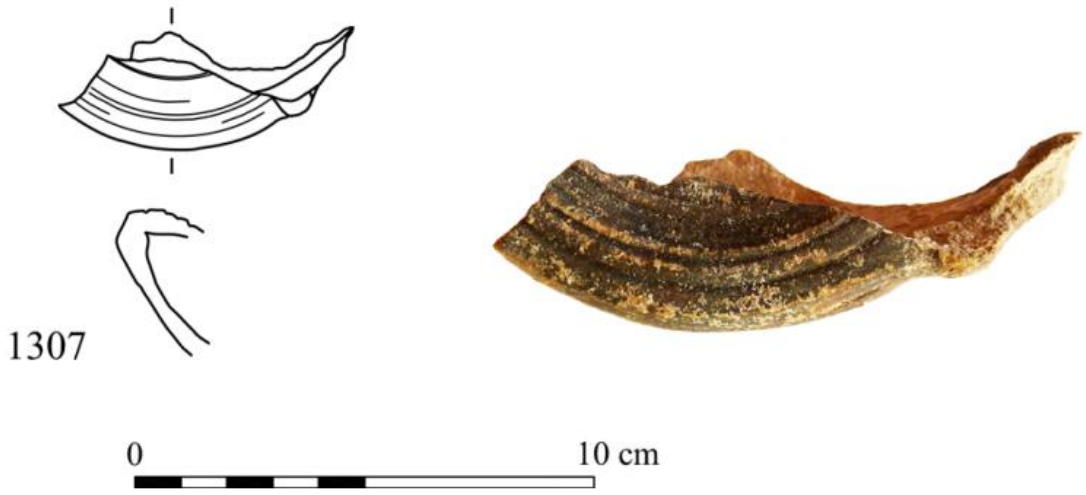


Figure 291 Lamp (KAP 1307) from Unit 4 *(Mondin 2019: 286, plate 2.121)*.

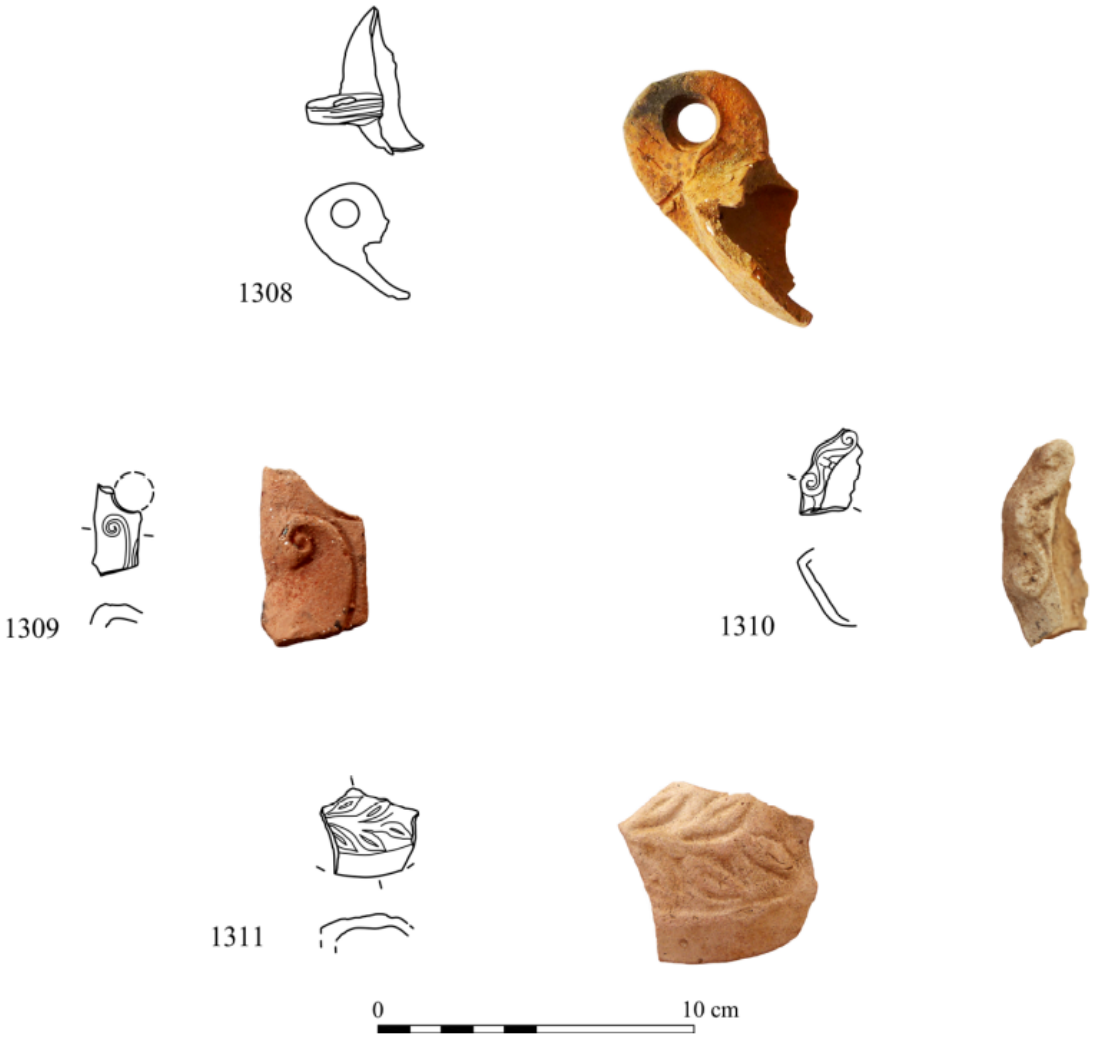


Figure 292 Lamps (from KAP 1308 to KAP 1311) from Unit 4 *(Mondin 2019: 287, plate 2.122)*.

Small finds

The following artefacts have been included in the category of small finds as they relate to personal use or possible activities undertaken by the house's inhabitants. The excavation registered a range of objects or fragments made of different materials: bone, faience, metal, stone, and terracotta.

Beads

Fifteen beads were retrieved from Unit 4: eight of glass, five of faience, one of bone, and one of stone (possibly calcarenite). They were found in different parts of the unit: KAO 67 and 68 from the surface layers (Figure 293), KAO 66 and b1212 from below Room B, b1390 in the house's 'corridor', b1856, b1844, and b1849 from the southeastern courtyard, b1695 from the area between House and Third Building, KA64 from the amphorae storage building's Room E, b1019 and b1137 from the Northwestern corner, KAO 65 from the robbed foundation trench F4126, b2468 from outside the Roman Room, and b2038 was recovered from the backfill over wall F4049.

All beads had either different colours and shapes or dimensions. Each bead was found individually; it can be inferred that they may represent loss or disposal episodes.



Figure 293 Two beads from the surface layers of Unit 4: a black glass spheroidal bead with single perforation (F4000, KAO 67, b015) and an oxidised glass spheroidal bead with single perforation (F4000, KAO 68, b053) *(Furlan 2019: 300)*.

Worked bone

Worked bone finds were common in Unit 4; 70 specimens were recovered (see Furlan 2019 for the publication of the finds recovered during the 2014-2016 seasons). Most were fragments of objects, which hinder the understanding of their original use; however, the finding of fragments as opposed to complete specimens, almost entirely outside of the domestic building per se, leads us to consider the possibility that bone working could have been an activity undertaken in the neighbourhood (C. Mondin 2020, personal communication, 29 November). Indeed, some scholars re-evaluated the workshop concept to free it from inherent bias when it is considered a non-domestic space when in some instances, it did form part of the domestic realm (Costin 2020: 181–3).

Thirty-seven bone hairpin fragments were collected from the excavation. Most hairpin specimens were fragments, often with the extremities bearing decorations. They have been distinguished into plain and globular ends, and some specimens exhibited carved decorations or incised lines (Furlan 2019: 292). KAO 4 and KAO 6 were found in the surface layers, KAO 7 and KAO19 in the area of Room B, KAO 8 in Room B, KAO 15, b1824, b1827, b1228, b1831, b1903, b1972, b1973, b1980, b1983, and b1986 in the southeastern courtyard, b2021 from the area of the southern addition, b1088 in the backfill over wall F4027, b2054 and b2071 from the area between the house, the eastern addition, and the street, KAO 17 and KAO 18 from the street, b1779 and b1797 in the Third Building, KAO 13 and KAO 16 from Room C and Room B of the amphorae storage building respectively, KAO 9, KAO 10, KAO 11, and KAO 14 from the Northwestern Corner, KAO 5 and KAO 22, and b1479 from the robbed foundation trench F4126, and b2575 and b2576 from outside the Roman Room. KAO 22 was the only worked bone made of elephant ivory (Bertini 2019: 322–3).

It can be noted just by observing the features in which the hairpins were found that the majority came from the Southwestern courtyard. It was possible to plot the location of 21 hairpin remains, whereas the others were retrieved in the sieve; the registered locations show no clustering, thus excluding the eventuality of intentional dumping in a specific area but with different instances of possible disposal.

The other worked bone objects included a fragment of a blade (KAO 34), four fragments of decorative elements, possibly fittings or inlays for furniture (KAO 12, KAO 20, KAO 21, and KAO 25), a semi-circular object (KAO 35), two rings (KAO 23 and b2562), three curved worked fragments (KAO 29, KAO 30, and b126), one worked bone with a pointed end, which could be an awl (KAO 31), one bone dice (b2329), and a circular object (KAO 32) that resembles working debris (St. Clair 1996: 15). KAO 26 (Figure 294), and possibly also KAO 27 and KAO 28, could be fragments of small cylindrical bone boxes associated with dice and used as throwing cups in gambling games (Figure 295)

(Gazda and Wilfong 2004: 30; Maguire, Duncan-Flowers and Maguire 1989: 226). Nevertheless, Maguire *et al*. added that they could also be used as cosmetic containers. Regarding a similar Late Roman fragment retrieved from Halusa (ancient Elusa) in the northern Negev, Goldfus and Bowes (Goldfus and Bowes 2000: 187–88) suggested that it could have been used as a decoration for a handle or for furniture, though it could also have been mated with another similar piece to form a canister.



Figure 294 KAO 26, retrieved from Room C of the Amphorae storage building *(Furlan 2019: 297)*.



Figure 295 Small cylindrical bone box and two pairs of bone dice from the Kelsey Museum (KM21885, KM 22745, KM 22782, KM 22765, and KM 22766) *(Gazda and Wilfong 2004: 30, figure 53)*.

Faience

Faience was retrieved mostly fragmented, in small quantities, and poorly preserved (Figure 296 and Figure *297*). The finding of a few diagnostic fragments of rims, bases, and a cup indicates that at least some of the fragments formed part of vessels of small size. The colours ranged from light blue to light yellow. KAO 38 and KAO 41 were the only two objects in faience retrieved from the excavation unit: the fragment of the right hand of a figurine (0.7g) and the corner fragment of a statuette with a human left foot on a plinth (105g). The former was found in the amphorae storage building's Room F, whereas the latter was found in Room B, in one of the deposits over the floor, where some fired bricks were lying.

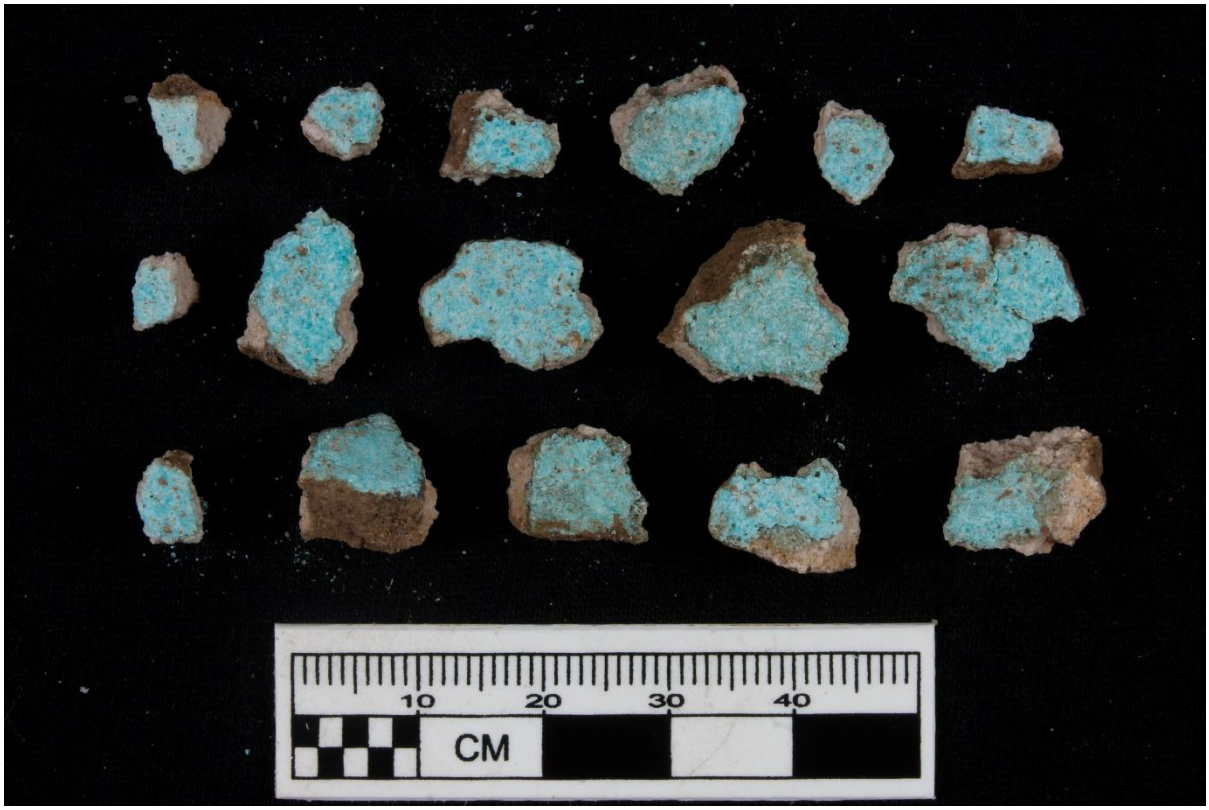


Figure 296 Fragments of faience (F4014, KAO 45, b305) *(Furlan 2019: 299)*.



Figure 297 Faience fragment bearing a decoration of circles and double vertical lines (F4065, KAO 42, b697).

The contexts where more faience was detected were in Room C and the Roman Room. Given the state of the finds (all fragmented, including the figurine and the statuette), it is challenging to ascertain a specific pattern. If anything, it would seem that faience was not a material very much used

in the Late Roman house's neighbourhood. A comparison can be made with the other domestic contexts investigated at Kom al-Ahmer and the nearby Kom Wasit: for instance, the House of the Horses presented a broader quantity of faience objects, from vessels to amulets (Furlan, Kenawi and Wilson 2019a: 106–109, 117–18). It must be highlighted that the House of the Horses was a casemate tower house dating back to the end of the Late Dynastic and the Ptolemaic period (Herslund 2019b: 94); thus, it represents a distinct temporal phase of the area. The Hellenistic domestic contexts investigated until now at Kom al-Ahmer also yielded a higher quantity of faience finds than that of Unit 4 (U. Furlan 2020, personal communication, 11 December). The comparison underlines the changes in customs and uses in architecture, objects, and materials, between the different periods.

Comparing the quantities and the locations where faience was found might offer some insights. If we observe Figure 298, it can be discerned that faience finds were more common in interior contexts. Furthermore, it can be noted that not all building interiors contained faience: the amphorae storage building and the third building recorded the lowest quantities (about a few small fragments).

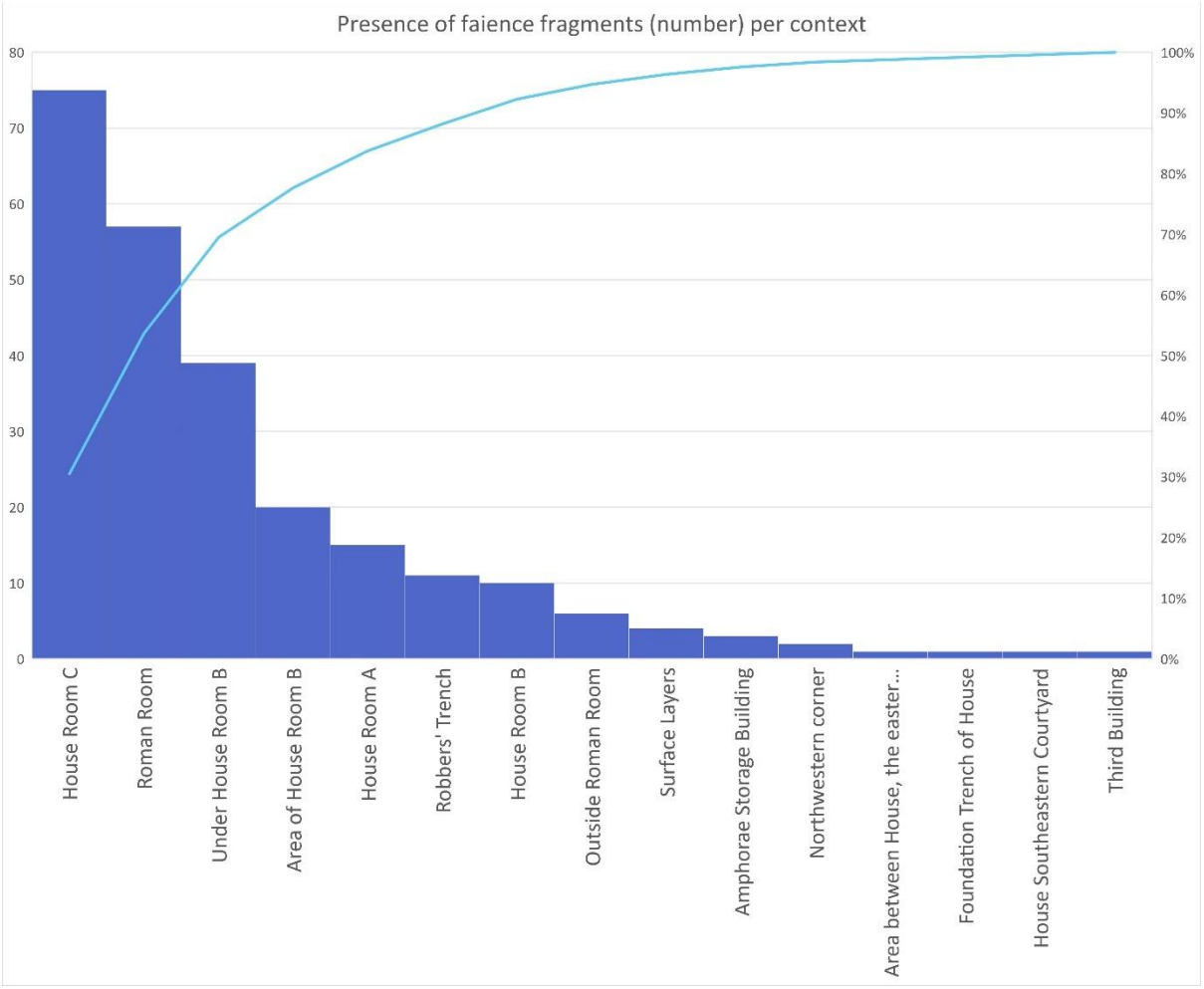


Figure 298 The quantity of faience finds and fragments retrieved from each context within Unit 4.

Metal

Metal objects and fragments were a common find throughout the unit. They all presented a severe corrosion level related to disuse and possibly the terrain's conditions; the coins' oxidative degradation was discussed by Asolati and Crisafulli (2019: 1–7). Given the number of coins retrieved and the dating information, they were discussed separately from the other metal finds.

An initial differentiation between the metal remains by type was done directly on the field. Fragments of objects were distinguished from other fragments in those cases where they retained a shape. For instance, iron nails were distinguished from iron objects, fragments of objects, and scraps due to the characteristic elongated shape. The materials that have been identified so far have been bronze (the coins), copper alloy, and metal.

Given the quantities collected, it can be inferred that metal was used for various objects, from tools to personal belongings such as rings. The quantification of the number of finds per context demonstrates that the areas with most metal finds were the two main buildings, though the house had double the amount as the amphorae storage building, followed by the Northwestern corner, albeit in diminished quantities. The other areas had similar smaller quantities. Figure 299 indicates that metal finds were related to the interior of buildings or areas with specific activities. The Third Building yielded fewer metal finds, but this might be related to the use and its partial excavation.

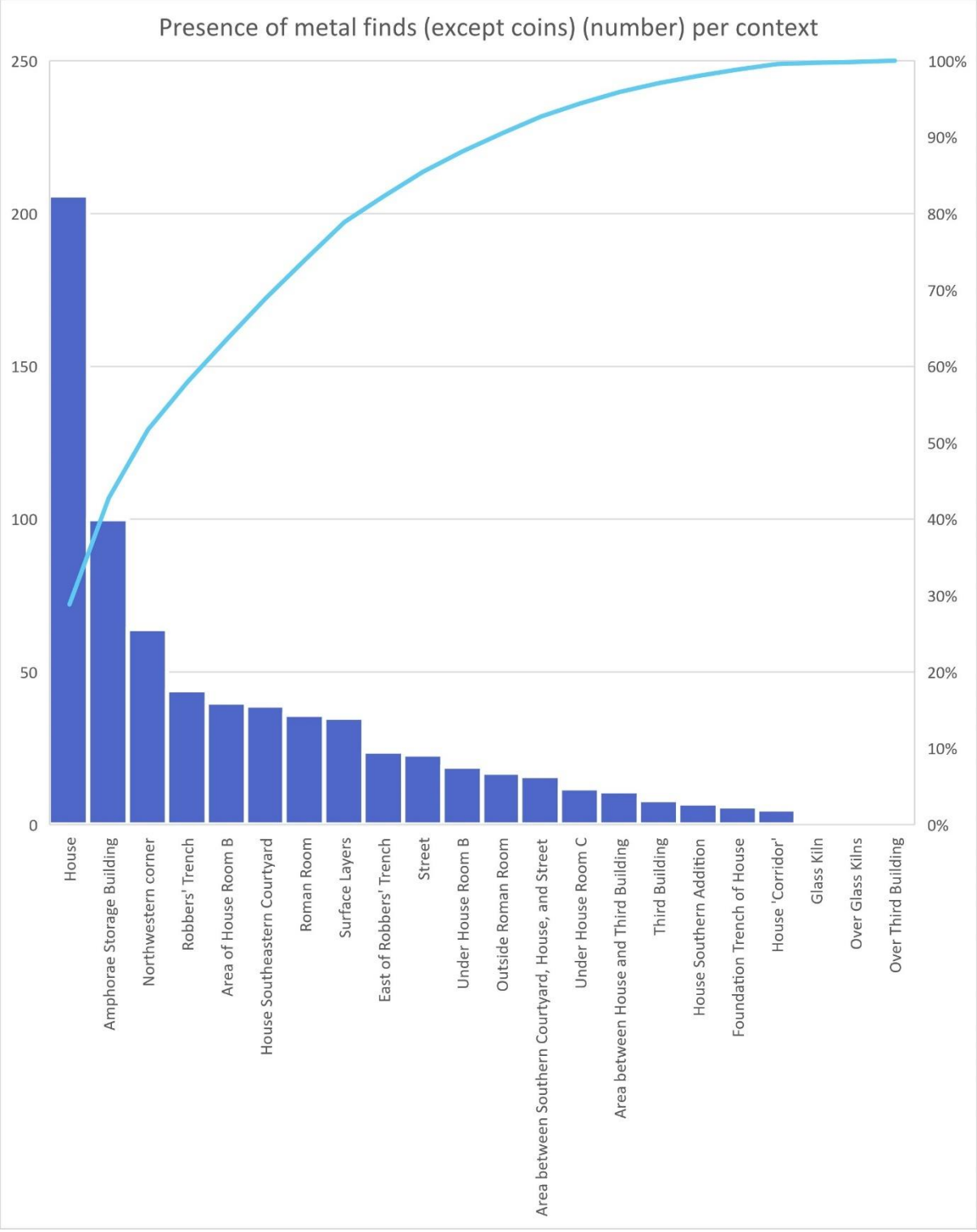


Figure 299 The quantity of metal finds and fragments retrieved from each context within Unit 4.

The identifiable finds were employed in construction and activities and personal use. The following finds were those recognised as objects:

- six iron rings, some of which were possibly used as or with tools: KAO 175, a finger ring with a bezel (from the Northwestern corner), b1847 (southeastern courtyard), b1876 (southern addition), b2365 (House Room C), b2508 (Outside Roman Room), and b2520 (Roman Room).
- one possible iron awl: KAO 286 (from the robbed foundation trench F4126).
- four iron blades: KAO 290 (from House Room B) (Figure 300), KAO 291 (Northwestern corner), KAO 292 (Roman Room), and b2314 (robbed foundation trench F4126).



Figure 300 A fragment of iron blade from Room B (F4073, KAO 290, b938) *(Furlan 2019: 313)*.

- about 428 iron nails. Several did not preserve their heads but exhibited a length of more than 3 cm (Figure 301). The area with the most iron nails was House Room C (98), followed by the amphorae storage building (69), the Northwestern corner (38), House Room B (34), and the Roman Room (30). Iron nails were used as structural, functional, and decorative fixtures, especially with wooden fixtures (see Husselman 1979: 7 regarding the use of wood in houses at Karanis; see Husson 1983: 101, 105, 107 regarding the use of iron nails used on wooden locks and as decorative features of

wooden doors). Iron nails could have been used to install elements of the upper storey and the roof (Costello 2014: 35).



Figure 301 Seven fragments of iron nails from Room B (F4073, KAO 252, b939) *(Furlan 2019: 312).*

- eight copper alloy nails: KAO 223 (from the amphorae storage building room F), KAO 224 (the Northwestern corner), and b2246 (House Room C).
- two copper alloy bells: KAO 178 and KAO 179 (both found in the amphorae storage area, the former within an outer superficial layer and the latter inside Room F).
- one possible copper alloy earring: b2524 (from Roman Room).
- one possible copper alloy weight: b1586 (from the robbed foundation trench F4126).
- ten copper alloy rings: KAO 169 (from under House Room B), KAO 170 (amphorae storage Room C), KAO 171 (amphorae storage Room C), KAO 172 (amphorae storage Room D), KAO 173 (street), KAO 174 (House Southeastern courtyard), b738 (House Room B), b810 (amphorae storage Room C), b1959 (House Southeastern courtyard), and b2521 (Roman Room).
- one copper alloy ring bezel: b1835 (House Southeastern courtyard).

- a long tool with looped ends: b2086, from the area between the southern courtyard, the House, and the street. b2086 seems to have been a netting needle (a parallel can be found at the British Museum, museum number 1888,0601.10, from a cemetery at Naukratis and dated to 350 and 250 BCE); together with the fish bones, it provides additional insight into the fishing activities.
- nineteen possible copper alloy objects, among which it was possible to distinguish a ring-shaped fragment (KAO 209, from Room B), a curved and elongated fragment (KAO 203, from under Room B), a bulbous object with a pointed end (KAO 206, from the street), a long and flat rectangular object (KAO 213, from the 'corridor'), a possible needle (b2247, from Room C), a fragment with a loop (b2366, from Room C), and a possible tool (b2193, from Room C).
- five iron finds could have been possible objects due to the shapes (b2186, b2169, b2201, b2216, b2259); however, it was not possible to discern what they were yet.

Terracotta

Five terracotta figurine fragments were collected from the excavation unit (Table 41). Compared with the other contexts investigated at Kom al-Ahmer and Kom Wasit, this unit yielded a small number of figurative objects. The terracotta figurine fragments are still in course of study, but it is challenging to ascertain what they represented as they were incomplete. Nonetheless, the finding of the figurine fragments almost exclusively within the house's contexts highlights the personal use of figurines within the domestic realm.

Table 41 List of terracotta figurine fragments.

Bag / KAO number	Context	Description	Photograph(s)
b933	House Room B	This fragment's linear and square decorative elements recall possible representations of shields or military signs. However, no parallels were identified.	

b1869	House Southeastern courtyard	This figurine represented a four-legged animal. It could represent a dog given the short legs; however, there are representations of horses with similar characteristics (Petrie Museum: UC59368; British Museum: E.150.1914) and representations of dogs with long legs (British Museum: E.149.1914 and NA364). It has been suggested that it could be a toy given the crudity of the craftmanship and the clay mixture. Similar examples have been noted for Roman and Late Roman Egypt (for instance, UC59368), and they may indicate the involvement of children in the creation of the figurines (Swift, Stoner and Pudsey 2022: 275). It could also be related to representations of the Sothic dog and the protection of the house (Bailey 2008: 175; Dunand 1979: 63).	

b2227	House Room C	This fragment could be a fragment of the base of a figurine. The dimensions of the fragment and the absence of details do not help infer what kind of figurine it was. It should be mentioned that there were types of Roman lamps with base or plinth, such as the Knidian types (Katsioti 2017: 405–10), but it is unclear whether this fragment could have been part of one.	
b2228	House Room C	A possible fragment (red slip) of a figurine with line decorations on the front side.	

b2383	House Room C	The base of a figurine. The shape is reminiscent of the base of Late Roman ceramic figurines, some considered dolls (Petrie Museum: UC31264; British Museum: EA37596).	

A unique find was KAO 36, a terracotta object retrieved from the robbed foundation trench F4126 (inside House Room C); its appearance resembles a cowry shell, but it did not have any perforations. Another pottery object was b2177 (House Room C), which appears pebble-shaped, albeit flat. This find is similar to 18 other stone pebbles retrieved chiefly within the house's rooms. It was found in the same feature as b2179 and b2180 (two of the stone pebbles mentioned above). The purpose of this object is unclear.

Stone

Stone was detected in the contexts of Unit 4 as a material used both for construction and objects of everyday use. The stones so far identified have been limestone, marble, granite, sandstone, calcite, and phyllite, and there are several finds whose stone types have not been identified yet. Limestone and marble were found in higher quantities, particularly unworked limestone fragments. Marble was used primarily as building material (slabs).

Stone objects

The small finds in stone indicate that stone was used for tools and appliances related to daily activities (pestles, grinders, and mortars) and votive ones (the altar/incense burner). The pestles, grinder, and mortar fragments were retrieved almost exclusively from the house's contexts, highlighting possible food preparation areas. The largest finds in stone were the limestone basin (KAO 105) and the altar or incense burner (KAO 126); the former was found with the amphorae remains in the largest room of the Amphorae Storage Building, leading one to assume that it would have served some functional purpose related to the amphorae re-use activity. On the other hand, the limestone altar or incense burner was retrieved from House Room B, assuming that it could represent a personal belonging of the individuals inhabiting the house.

- twelve stone pestles: KAO 91, KAO 93, KAO 94, KAO 95, KAO 97 (Figure 302), and KAO 98 (from the surface layers), KAO 113 (either a pestle or polishing stone, from the robbed foundation trench F4126), KAO 102 and b571 (House Room A), KAO 109 (Amphorae Storage Building Room B), b450 and b532 (from the area of Room B).



Figure 302 Pestle from the surface layers of Unit 4 (F4011, KAO 97, b258) *(Furlan 2019: 302)*.

- one fragment of a possible granite grinding stone, with incised parallel lines: KAO 106 (under House Room B).
- one fragment of a sandstone mortar or grinder: KAO 112 (robbed foundation trench F4126).
- fragments of grinders: KAO 96 (Figure 303) and KAO 114 (surface layers), and b2358 (outside the Roman Room).



Figure 303 Fragment of a stone grinder (F4008, KAO 96, b202) *(Furlan 2019: 302)*.

- a limestone basin: KAO 105 (from the Amphorae Storage Building Room C) (Figure 304).



Figure 304 A limestone worked basin (F4090, KAO 105, b1238) *(Furlan 2019: 302)*.

- a limestone altar or incense burner: KAO 126 (from House Room B).
- a painted limestone amulet of Nefertem: KAO 40 (surface layers).
- a fragment of a semi-circular limestone object, possibly a weight: KAO 124 (House Room A).
- a fragment of a stone vessel, possibly a base (b610, House Room A).
- worked stone finds included calcite fragments (b1429, from the Amphorae Storage Building Room B; b1402, from the House's 'corridor'; and b1439, from the Amphorae Storage Building Room F) and phyllite (KAO 111, from the robbed foundation trench F4126).
- eighteen flat, 'tear-shaped' stone pebbles: b630 and b640 (three in total, from House Room A), KAO 103 (three in total, from House Room B) (Figure 305), b2179, b2180, b2188, b2189, b2231, b2258, and b2374 (nine in total, from House Room C), b2389 (from the foundation trench F4243 of the House), b2470 (from outside the Roman Room), and b1621 (from the Amphorae Storage Building Room E). These small stone finds were initially considered inclusions, but the increase in number suggests a

possible function (a specimen in ceramic – b2177 – was also collected from Room C). None of the finds exhibited signs of having been worked; as such, whatever use they may have had did not require previous preparation. It is tempting to link them to the manual activities taking place around the house (from the glass kilns to the bone working); however, there is no tangible connection.



Figure 305 Three tear-shaped pebbles from the context below Room B (F4075, KAO 103, b1153) *(Furlan 2019: 302)*.

Eleven rhizoconcretion specimens were retrieved from Room C and the contexts under Room B and C, including the Roman Room.

Stone as a building material

The stone finds classified as building materials were marble and limestone. We know that limestone was used as building material at Kom al-Ahmer in the same period (see Kenawi and Marchiori, 2019a regarding the stone structures on the central mound of Kom al-Ahmer); the Late Roman house had been constructed in mudbricks, but stone seemed to have featured within it. The

number of slabs had initially led to the idea that they may have been intended for floors, but they may have been re-used as part of fixtures as none were recovered in situ. One of the contemporary contexts in the site's central mound had the remains of limestone floors, one of which exhibited a mortar preparation layer with the moulded shape of the slabs (Kenawi and Marchiori, 2019a, pp. 262–264); neither moulding nor mortar preparation layers were noted on the remains of the beaten earth floors of the house, but the in situ marble slab fragments recorded in the Roman Room show that it was used for flooring or as fixture without the requirement of a preparation layer.

The contexts from which the worked limestone and marble finds were retrieved mostly were Rooms A and C of the house, and the Roman Room, with a few specimens retrieved from other contexts.

- worked limestone fragments: KAO 125 (from House Room B), KAO 131 (from the robbed foundation trench F4126), b627 (from House Room A), KAO 108 (four worked fragments from under House Room B), b2110, b2146, b2233, b2234, b2245, and b2368 (from House Room C), b1929 (from the Southeastern courtyard), b1431 (from the Amphorae Storage Building), b2321 (one fragment of worked limestone from the Roman Room), b2474 (from outside the Roman Room), b1728 and b1791 (three fragments from the *sebakheen* pit),
- fragments of limestone slabs: KAO 127 (one fragment from the street), b2321 (one fragment from the Roman Room), and b1605 (one fragment from the robbed foundation trench F4126).
- worked marble fragments: b568 (one fragment from House Room A), KAO 120 (one fragment under House Room B), b2184 and b2307 (two fragments from House Room C), b2448 and b2486 (a few fragments from the Roman Room).
- fragments of marble slabs: b598, b604, b632, and KAO 119 (Figure 306) (nine fragments from House Room A), b2232 and b2307 (two fragments from House Room C), b1423 (one fragment from Amphorae Storage Building Room B), b1817 (one fragment from the Third Building), b2322, b2326, b2490, b2518, b2530, and b2532 (30 fragments from the Roman Room), KAO 110, KAO 121, and KAO 122 (five fragments from the robbed foundation trench F4126).



Figure 306 Fragments of marble slabs from Room A (F4066, KAO 119, b625) *(Furlan 2019: 304).*

Faunal remains

Bertini (2019: 314–31) analysed the assemblage of faunal remains from the whole site, and so far, the remains retrieved from the 2014 to 2017 campaigns have been published, with the faunal remains from the campaigns 2018 and 2019 in course of publication (see Table 42). Regarding the area of Unit 4, Bertini confirms that the nature of the faunal remains in the context is quite clear. The preferred meat seems to have been pork according to the high number of pig bones (both wild boar and/or feral pig bones), which represent the highest at Kom al-Ahmer compared to other animals (and the majority was retrieved from Unit 4) (Bertini 2019: 329). The pig bone remains suggest that Unit 4 could have been a butchering location due to the quantity of cranial and mandibular elements and teeth versus other elements, which could mean they were transported to another location after slaughter (Bertini 2019: 317). Indeed, most of the butchered bones retrieved between the 2012 and 2017 campaigns came from Unit 4 and were pig bones (Bertini 2019: 327). Other animal bones with butchery marks were also identified in lesser quantities: sheep/goat, cattle, donkey, and bird (Bertini 2019: 328).

Cattle and sheep/goat were also present in the assemblage, but to a lesser extent than pig. Curiously, the former two indicate domestic consumption rather than butchering, instead of the pig bone remains (Bertini 2019: 318). Donkey bones and a few horse bones were also identified, and there was

also evidence for fowl remains, mostly duck and geese, though the quantity was much lesser than the other animal categories (Bertini 2019: 321).

Concerning shell remains, Unit 4 was one of the units with the most shell remains at Kom al-Ahmer (the article refers to Units 1, 2, and 4, which were the only excavation units presented in the publication). Shells were both fresh water and marine species, but Bertini specifies that the marine species identified at Kom al-Ahmer might not necessarily come from the sea as they can also be encountered in brackish waters. Some shell species could be consumed, whereas others seemed to have been intrusive and might represent an infestation. A few marine gastropods could have been remains of objects, such as the cowry shells (Bertini 2019: 326–7).

Fish remains were also identified, and the bone quantities indicate that the open water fish had been preferred to the floodplain fish (Bertini 2019: 324). Some bone specimens for cat, dog, and gazelle were also noted. Animals that appear to have had quite some relevance were rodents, who seem to have infested all the domestic and storage contexts at Kom al-Ahmer, given the quantity of bones retrieved (Bertini 2019: 314–6).

Bertini draws several links between the faunal assemblage of Kom al-Ahmer and that of the nearby Kom Wasit, as both sites are investigated by the Italian mission and other sites of the Western Delta, such as Kom Firin, Marea, and Naukratis. Based on the published evidence, she suggests that pig breeding and possibly wild boar/feral pig hunting were activities at Kom al-Ahmer, similar to other sites such as Naukratis and Kom Firin (Bertini 2014: 306–308, 2019: 317). Sheep/goat presence was also attested at Naukratis (Bertini 2019: 330). An interesting difference was noted between Kom al-Ahmer and Kom Wasit: the excavated contexts at the latter site revealed an almost complete absence of pig bones and a high quantity of equid bones, particularly donkeys. Such disparities in the choice of preferred meat (some donkey bones had butchery marks, which suggests that the animals were used for work and meat consumption) suggest ethnically diverse populations (Bertini 2019: 321, 331); however, it must be noted that the contexts from the two sites are temporally dissimilar (Late Dynastic and Ptolemaic versus Late Roman and Byzantine).

Table 42 The faunal remains recovered from the contexts of Unit 4 during the 2014-2019 excavation period. The left column indicates the species, and the right column indicates the number of bone fragments (table by Dr Louise Bertini, courtesy of the Kom al-Ahmer – Kom Wasit Archaeological Project).

Freshwater bivalve	
Aspatheria sp. (freshwater mussel)	73
Chambardia ruben (freshwater mussel)	59
Corbicula sp. (freshwater/brackish clam)	5
Etheria elliptica (freshwater mussel)	1
Unio sp. (freshwater mussel)	87

Marine bivalve	
Cardiidae (marine cockle)	4
Donax sp. (marine clam)	78
Glycymeris glycymeris (marine clam)	4
Venus verrucosa (saltwater clam)	2
Freshwater gastropod	
Bellamya unicolor (freshwater snail)	23
Cleopatra bulimoides (freshwater snail)	21
Eremina desertorum (land snail)	45
Melanoides tuberculata (freshwater snail)	4
Pila sp. (freshwater snail)	6
Theodoxus niloticus (freshwater snail)	1
Valvatidae sp. (freshwater snail)	1
Marine gastropod	
Murex sp. (marine snail)	2
TOTAL MOLLUSCS	**416**
Bagrus bajad (bagrus catfish)	3
Clariidae (clariid catfish)	32
Lates niloticus (Nile perch)	7
Siluriformes sp. (unidentified catfish)	114
Synodontis sp. (Synodontis catfish)	201
Tilapiini (tilapia)	65
TOTAL FISH	**390**
Anser anser (domestic goose)	6
Anas crecca (teal)	8
Anas platyrhynchos (mallard)	31
Corvus corone (crow)	2
Fulica atra (coot)	2
Gallus galus (domestic foul)	4
Passeriform (perching bird)	3
Puffinus sp. (shearwarer)	4
TOTAL BIRDS	**60**
Bos taurus (cattle)	67
Canis familiaris (dog)	74
Capra aegagrus (wild goat)	1
Capra hircus (goat)	9
Equus africanus asinus (donkey)	21
Equus ferus caballus (horse)	3
Equus sp. (unidentifiable equid)	9
Felis catus (cat)	8
Gazella (gazelle)	1
Loxodonta africana (african elephant)	1
Ovis aries (sheep)	7

Ovis/Capra (sheep/goat)	187
Rattus sp. (rat)	4
Rodentia (rodent)	141
Soricidae (shrew)	3
Sus scrofa domesticus (domestic pig)	863
Sus scrofa (wild pig)	19
TOTAL MAMMALS	**1418**
Unidentified Shell	12
Unidentified Fish	74
Unidentified Bird	230
Small Mammal	8
Medium Mammal	3623
Medium-Large Mammal	540
Large Mammal	29
TOTAL ASEMBLAGE	**6800**

Glass

Glass has been the second-largest group of objects recovered from Kom al-Ahmer by the Italian mission's investigations (Figure 307) (Furlan 2019: 292). This category of finds is currently under investigation. The glass remains included shards of vessels and jewellery such as beads and fragments of bracelets. Around 2700 glass shards were retrieved from the excavation unit. These finds included two unguentaria (b088 and b089) that were retrieved from F4002 and are the only almost complete glass containers that were found within Unit 4, 48 glass bangle bracelet fragments, one glass pendant (b1863), one glass ring (b1678), and eight glass beads. Several shards were diagnostic, whereas others presented decorations. The glass from Kom al-Ahmer began to be studied by Federica Faro and is currently being investigated by Dr Cristina Boschetti; the current plan is to include chemical analysis on some of the finds, which may shed light on the possible re-use of glass for manufacture in the area of the possible glass kilns southwest of the house.



Figure 307 An example of glass from Kom al-Ahmer *(Furlan 2019: 293, figure 14.1)*.

Glass finds were found in all the contexts of the excavation unit. The glass remains were quantified to attain a preliminary understanding of which areas may have been involved more with glass production (related to the glass kilns) and eventual use. The quantities were considered in terms of the number of shards and pieces and counted to indicate which contexts yielded more shards and, supposedly, a higher quantity of glass remains.

Figure 308 shows the contexts of Unit 4 ordered according to the quantity of glass finds, from highest to lowest. The unit's northwestern corner yielded the highest amount, followed by the street between the house and the amphorae storage building, the southeastern courtyard associated with the house, and the surface layers. These four contexts form part of the latest phase of use of the area. Among the Late Roman house's rooms, Room B had the highest amount of glass finds, and it must be noted that the most superficial layers associated with Room B (F4014, F4015, F4016, F4018, F4019, and F4020) yielded more; Room C followed, then Room A, which had a lesser amount (51 glass finds/shards compared to 131 from Room C), but this may depend on the extent that the excavation reached in Room A. Of the rooms of the amphorae storage building, Room C contained the most glass finds, followed by Room E, Room F and D (both had similar quantities, albeit the difference in room size and the number of amphorae contained), while Room B presented the lowest quantity, which might be because it was almost filled with amphorae.

The areas with fewer glass finds were the foundation trench F4243 of the house, the southern addition to the house and its related area between it and the third building, the possible *sebakheen* pit, and the excavated glass kiln F4303. Concerning the contexts below the Late Roman house's rooms, the layers below Room B and those below Room C, the latter specifically outside the Roman room, yielded a similar amount of glass finds, whereas the context of the Roman room had about half of the glass finds than the context outside the Roman room (19 finds as opposed to 48 finds).

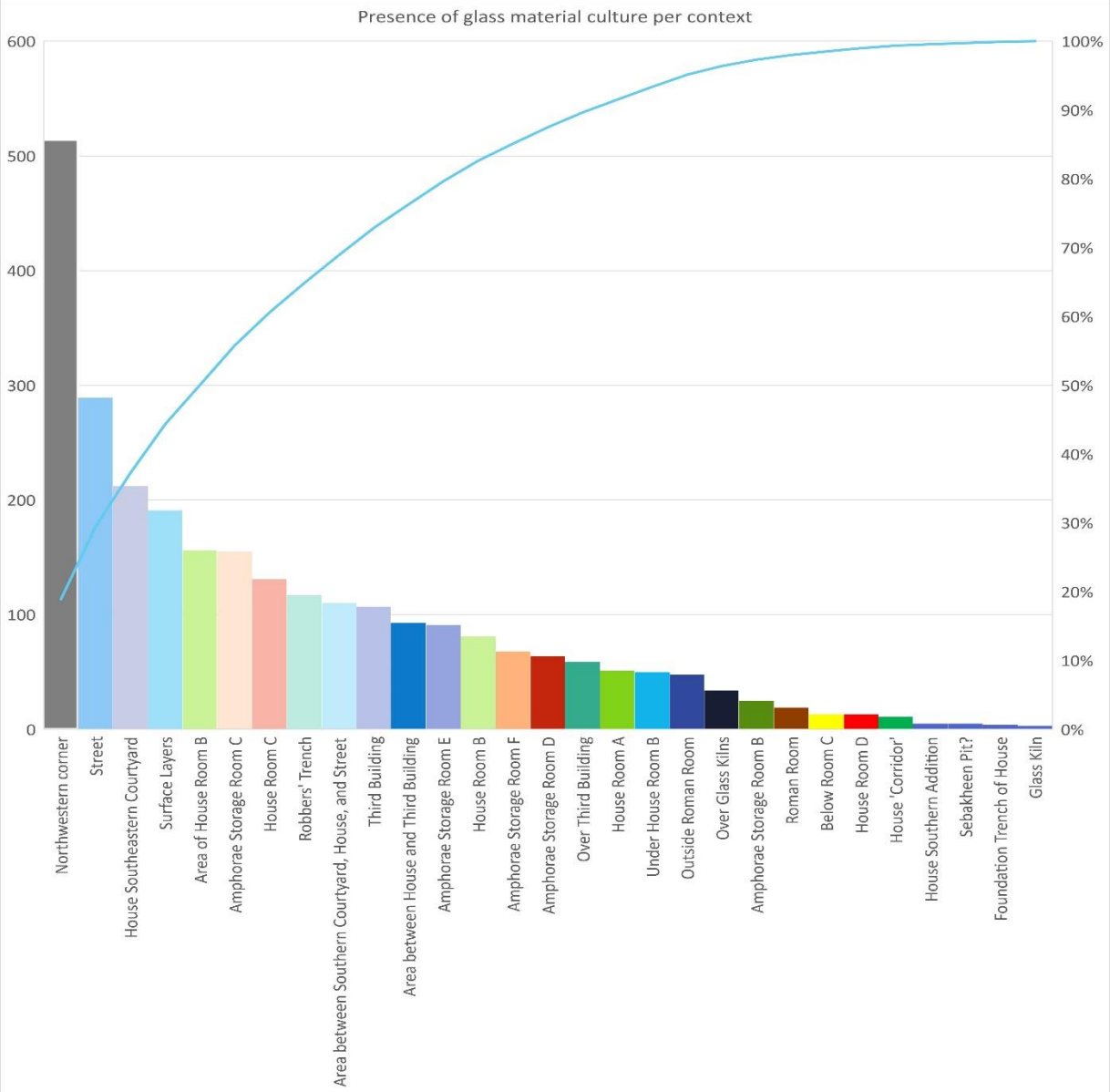


Figure 308 Glass finds are ordered according to the retrieved quantity (here considered as the number of shards) in each context.

Miscellaneous

Fired bricks

While the buildings investigated so far in the Late Roman neighbourhood of Kom al-Ahmer are constructed in mudbricks, fired brick was in use at the site; the examples include the Roman bathhouse, the remains of a possible monumental tomb, an oval basin, walls, and an early Islamic funerary structure within the contexts investigated on the central mound (Kenawi 2014: 107, 109, 111; Kenawi and Marchiori 2019b: 279–81, 2019a: 262). Fired bricks were featured within the excavation unit contexts under investigation, namely architectural features and installations. Several deposits featured fragmented fired bricks among their inclusions, commonly used, albeit mostly in small proportion. As stone, they were used for specific purposes; however, the reason for choosing fired brick against other building materials is not always apparent. For instance, four circular hearths detected in the Southeastern courtyard area and the southern addition to the house were lined with fired bricks, whereas the glass kilns were not. This choice highlights a preference for the construction material depending on the use of the installation. Evidence from the Fayum implies that the sporadic use of fired brick within mudbrick dwellings was linked with water or liquids and workshop ovens or kilns (Davoli 1998: 356) or architectural features that could quickly wear (like thresholds) as well as house corners and foundations (Campbell 1974: 170–1).

Besides their use in hearth installations, fired bricks were employed within the house in two different instances as architectural additions and reparations. Room B provides both examples: its western wall (F4050) was skirted by a row of fired bricks running along its inner side, whereas its northern wall (F4049) had been partially repaired with inclusions of fired bricks and amphorae bases. These two instances represent different inclusions of fired bricks within mudbrick architecture. Due to the state of the remains, it is not clear why only Room B required the addition of fired bricks and in different modalities; the skirting on wall F4050 was not found lined against the wall, but at a distance of about 10 cm, the fired bricks were coated in white mortar but had not been inserted within the wall like in the case of wall F4049. The other walls did not exhibit anything similar. There is the possibility that the possible wall skirting may have been part of an installation within the room, as an accumulation of fired bricks was detected, some with white mortar coating, in the southwestern corner of the room; however, it was not possible to ascertain the purpose.

Wall F4055, located in the southwestern corner of the excavation unit, is another example of a mudbrick wall with inclusions of fired bricks. An instance where the fired brick was preferred to mudbrick was the case of the robbed foundation trench F4126, namely the fired brick packing F4139.

F4088, one of the deposits under Room B, was characterised by a high number of fired bricks within its inclusions, possibly the result of a collapse.

Painted plaster

It was common in Egypt to finish walls in plaster and lime wash (Boozer 2015a: 22). In Unit 4, plaster finds consisting of unpainted, painted, and moulded fragments were retrieved solely in specific contexts, namely those related to the Late Roman house (Figure 309). Unpainted plaster fragments were noted as inclusions within the deposits but were not collected or counted unless they presented moulding or had a worked shape. Instead, painted plaster was collected, which allows us to conduct a preliminary analysis based on the contexts where it was found and the quantities. The plaster finds from the *sebakheen* are not included in this quantification as not all the finds could be collected since only part of the soil deposits was sieved. The quantification results of the recovered fragments are displayed in Figure 310.

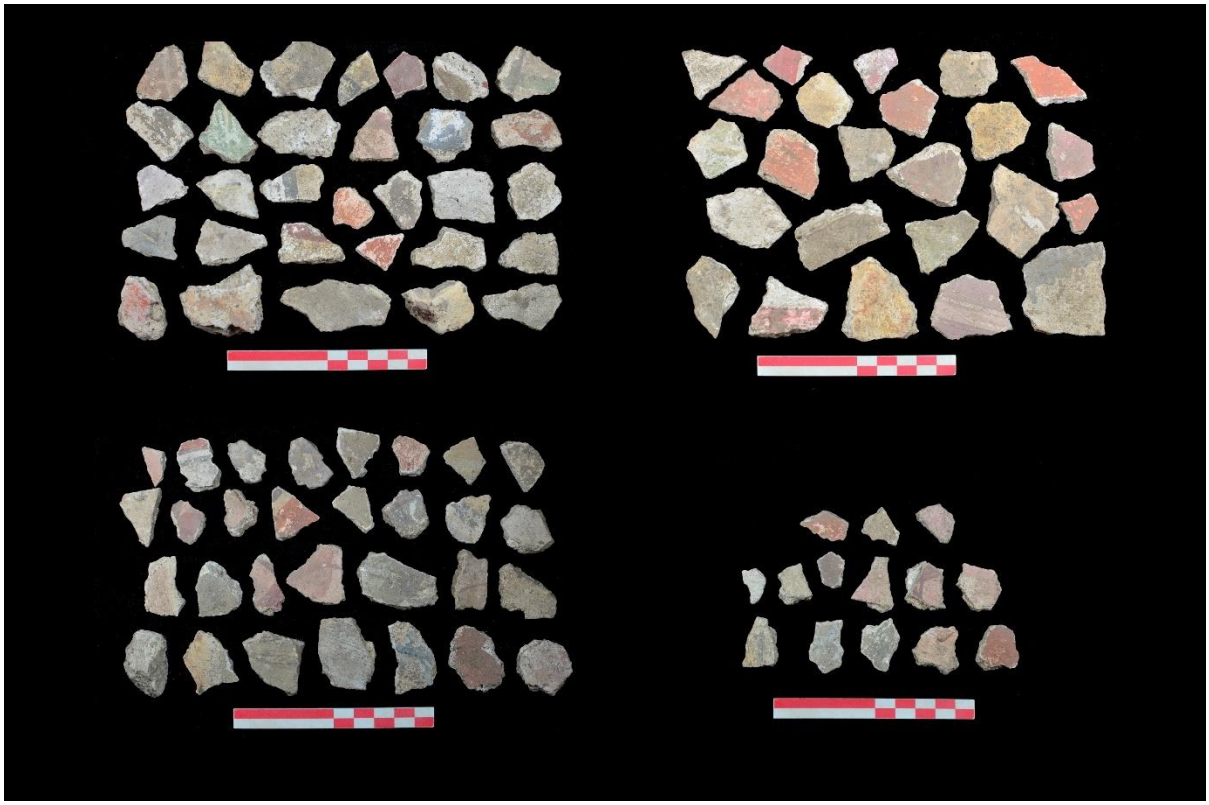


Figure 309 Examples of painted plaster fragments retrieved from the deposits inside the house.

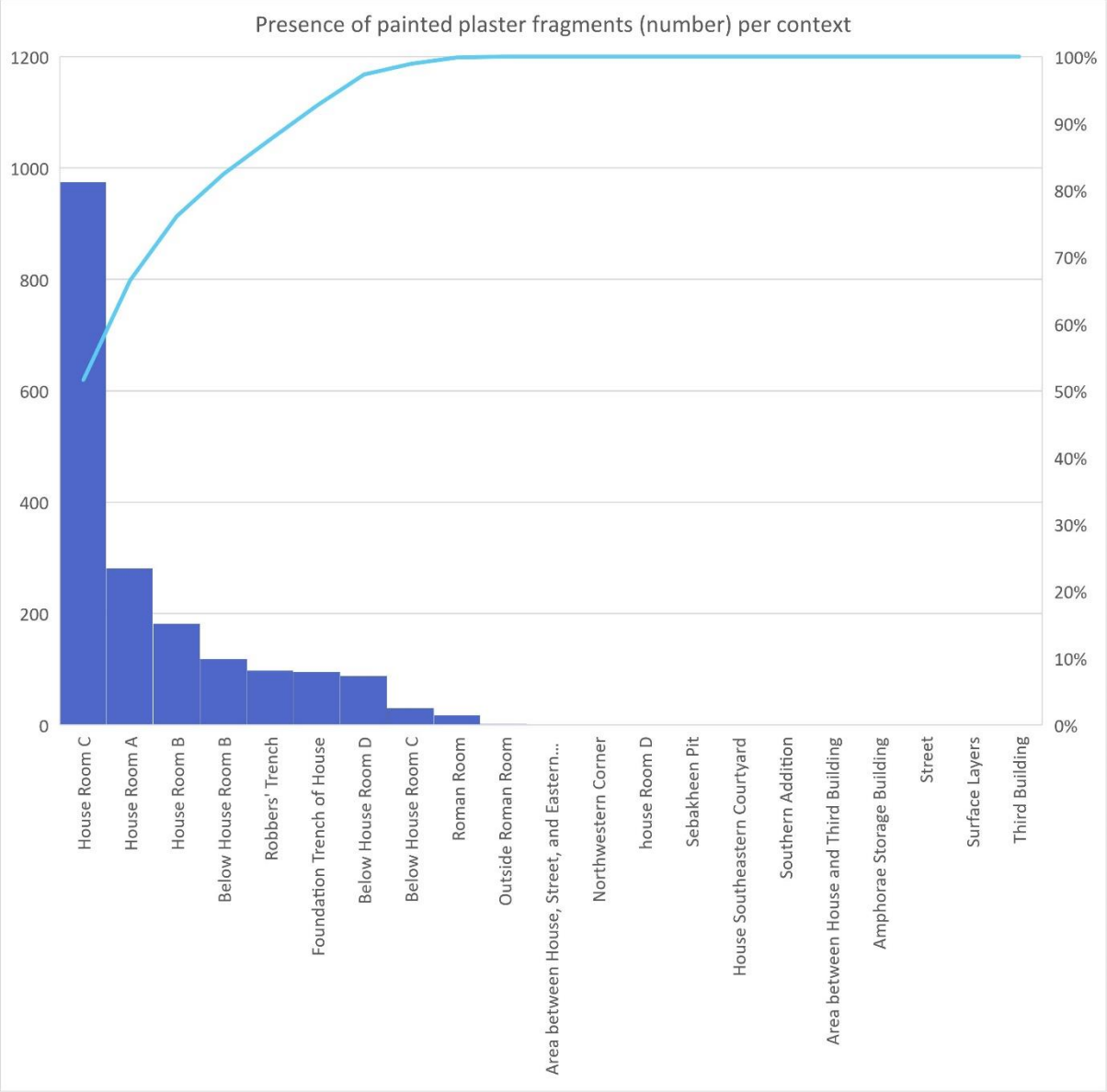


Figure 310 The presence of painted plaster (number of fragments) within the excavation unit contexts.

The Late Roman House's Room A yielded 281 fragments of painted plaster, Room B 182, and Room C 974, of which 289 came from F4228, the deposit lying over the beaten earth surface F4229. One hundred nineteen fragments were retrieved from the context below Room B; on the contrary, the context outside the Roman Room, which should correspond to the context below Room B, yielded two fragments, whereas the Roman Room included 18 fragments. The fill of the house's foundation trench (F4242) contained almost 100 fragments. The other context where painted plaster was recovered was the area below the House's Room D (88 fragments), which made part of the southeastern courtyard. Twenty-one fragments came from the robbed foundation trench F4126; it must be noted that 80 fragments were collected from fill F4126 SL006. This fill was located within Room C, and the increase

of painted plaster may be because the fill pertained to the room's layers rather than the robbed foundation trench F4126.

Room A exhibited plaster remains in features F4065, F4066, F4067, and F4068. The first fragment of plaster retrieved from Room B was encountered in deposit F4220, but the quantity increased in the lower deposits, whereas the first deposit to include painted plaster in Room C was F4215. Plaster of any kind, not solely painted, was not found in any of the other contexts, not even within the amphorae storage building; this allows us to deduce that painted plaster was a characteristic of the rooms of the house (Marchiori 2019: 249).

The contexts investigated below the house's Room D also yielded plaster fragments, and it is one of the few areas where plaster was found. The layers were F4120, F4122, and F4137. F4122 and F4137 were excavated in different seasons but were recognised as the same layer. Therefore, they represent a soil deposit of the southeastern courtyard, an occupational phase before constructing the eastern addition. The plaster findings in F4120, which lay over F4122, should be considered related to F4122. The deposits were thick and extensive; the presence of plaster might be related to dumping.

Concerning the lining of the outer façade of the house's walls, the excavation within the limits of Room D allowed us to detect the remains of mud covering wall F4032 (Figure 311). The absence of plaster fragments in the unit's outer contexts points to the house having a mud lining. It is unclear whether mud lining over mudbrick would preserve better than plaster; the excavation process and the identification of walls involve scraping, which likely removes any mud lining preserved.



Figure 311 Remains of mud lining against the outer facade of wall F4032 (Marchiori 2019 p. 250, figure 11.103).

No plaster finds were found lining the walls. The preservation of plaster is subject to various factors, from insects consuming its straw content (Kemp 2000: 92) to environmental conditions. Arid contexts, such as those of the Oases, provide more suitable conditions. Examples of painted plaster still in situ can be found at the sites of the Dakhleh Oasis. At Ismant el-Kharab (Kellis), residence B/3/1, a mudbrick building dating back to the 3rd-4th centuries CE comprising over twenty spaces, exhibited painted remains plaster decorations within five rooms at least (Hope and Whitehouse 2006: 319). The investigations have identified six decorative styles, ranging from imitation of opus sectile, panels, wallpapers, columns, and representations of characters (Hope and Whitehouse, 2006, pp. 323–326). The plaster decorations were found in situ against the walls. Similar findings were documented in the nearby site of Amheida: the 4th century CE House B1, the house of Serenos (its owner), was a square building with 11 rooms, and it exhibited the remains of multiple layers of painted plaster (Davoli 2012: 267, 271, 277) representing geometric and floral motifs as well as mythological scenes (McFadden 2010: 360, 363–4) (although these houses seem to be of different status to the Kom el Ahmer one).

The plaster from the Late Roman house of Kom al-Ahmer comes in various colours. Though a detailed analysis of the styles and depictions is still due, preliminary observations allow some characteristics to be identified: several fragments were monochromatic, and others exhibited linear patterns, such as black, white, and red stripes or wavy lines (in different colours, predominantly black). A few fragments stood out: two pieces bearing traces of gilding (KAO 150) (Figure 312) (Furlan 2019: 294, 307) from Room B (F4074) and one fragment possibly bearing the painting of two hands (KAO 140) from Room A (F4065) (Figure 313). It can be suggested that the wall decorations included geometric patterns, but that the wavy lines may be representations of opus sectile might be an overstatement. Whether the internal room décor included the representation of human figures and specific scenes cannot be said with certainty due to the lack of fragments.



Figure 312 Two pieces of painted plaster bearing traces of gilding (KAO 150) *(Furlan 2019: 294, 307; Marchiori 2019: 212, figure 11.46).*

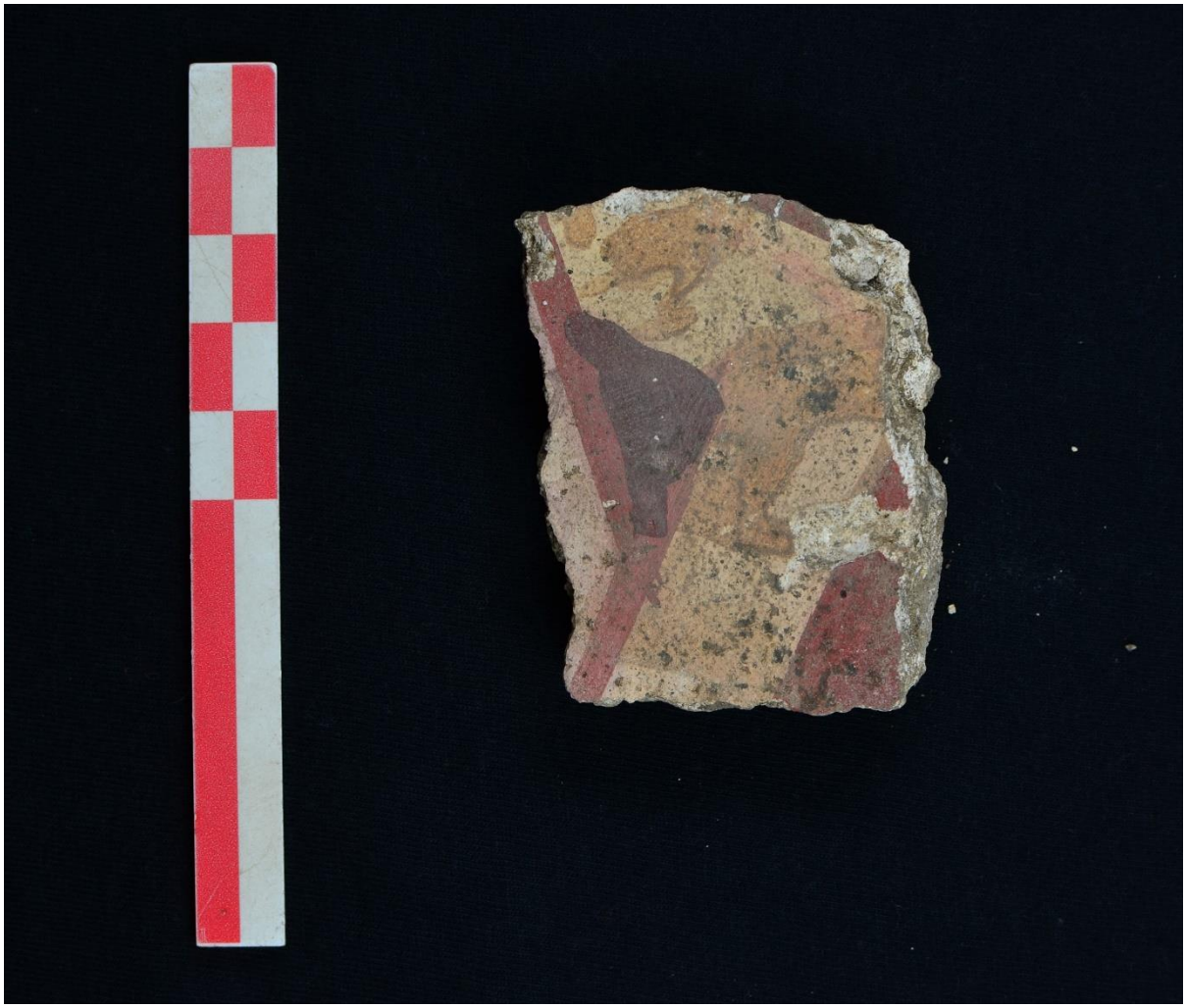


Figure 313 A piece of painted plaster with the possible depiction of two hands.

The gilded fragments also feel out of place as no others were detected. It has been suggested that, if there had been more, these fragments could have been removed to burn them and melt the gold gilding. However, it was then noted that painted plaster fragments began to be retrieved from deposit F4020 (in Room B) and F4065 (in Room A), and F4215 (in Room C). These layers were beneath the deposits that related to the possible 'coin floor;' the number of coins diminished in F4021 and F4022.[190] This notion instigates the possibility that the painted plaster fragments may have related to the occupation that concerned the basement rooms (*Subphase 1*) and that the 'coin floor' —which was associated to the workshops of *Subphase 4*— may also represent a different occupation of the house, possibly by a household with a different socioeconomic situation than the previous one.

[190] Number of coins in the features of Room A: F4017: 58; F4021: 13; F4065: 7. Number of coins in the features of Room B: F4018: 47; F4019: 40; F4020: 42; F4022: 22; F4069: 2.

Slag

Slag fragments were registered in various contexts of the excavation. The study of this find category did not go beyond visually identifying the type of material and weighing all collected fragments. The slag fragments primarily differed in appearance due to the level of vitrification and iron corrosion, thus leading to the assumption that they come from glass and iron productions or even from lime burning; however, further visual analysis of the morphology of the fragments and chemical analyses would have provided clarification regarding the materials and the cycles of production (Vodyasov and Zaitceva 2017: 109). Due to the latter analyses' unavailability, assessing the slag finds through quantification was deemed necessary to yield some information on their presence.

The slag finds were quantified by comparing the quantities (weight) found in each identified context (all features). The results were plotted in a table, where the contexts were ordered with those with more slag first up to those with lesser amounts. Figure 314 shows that the contexts with most slag finds were the rooms of the Late Roman house, starting with Room C (66.02 kg), followed by Room B (32.15 kg), and then Room A (20.55). It must be noted that the context below Room B also yielded a high amount (59.25 kg), which was due to the presence of deposit F4086; the deposit was characterised by a high quantity of slag (27.3 kg), and it was the layer with most slag finds detected within the excavation unit. The context under Room C yielded 19.76 kg of slag; however, part of the area was occupied by the Roman Room, where 11.14 kg of slag were found, and the context outside the Roman Room and thus related to the context under Room B included 8.98 kg of slag.

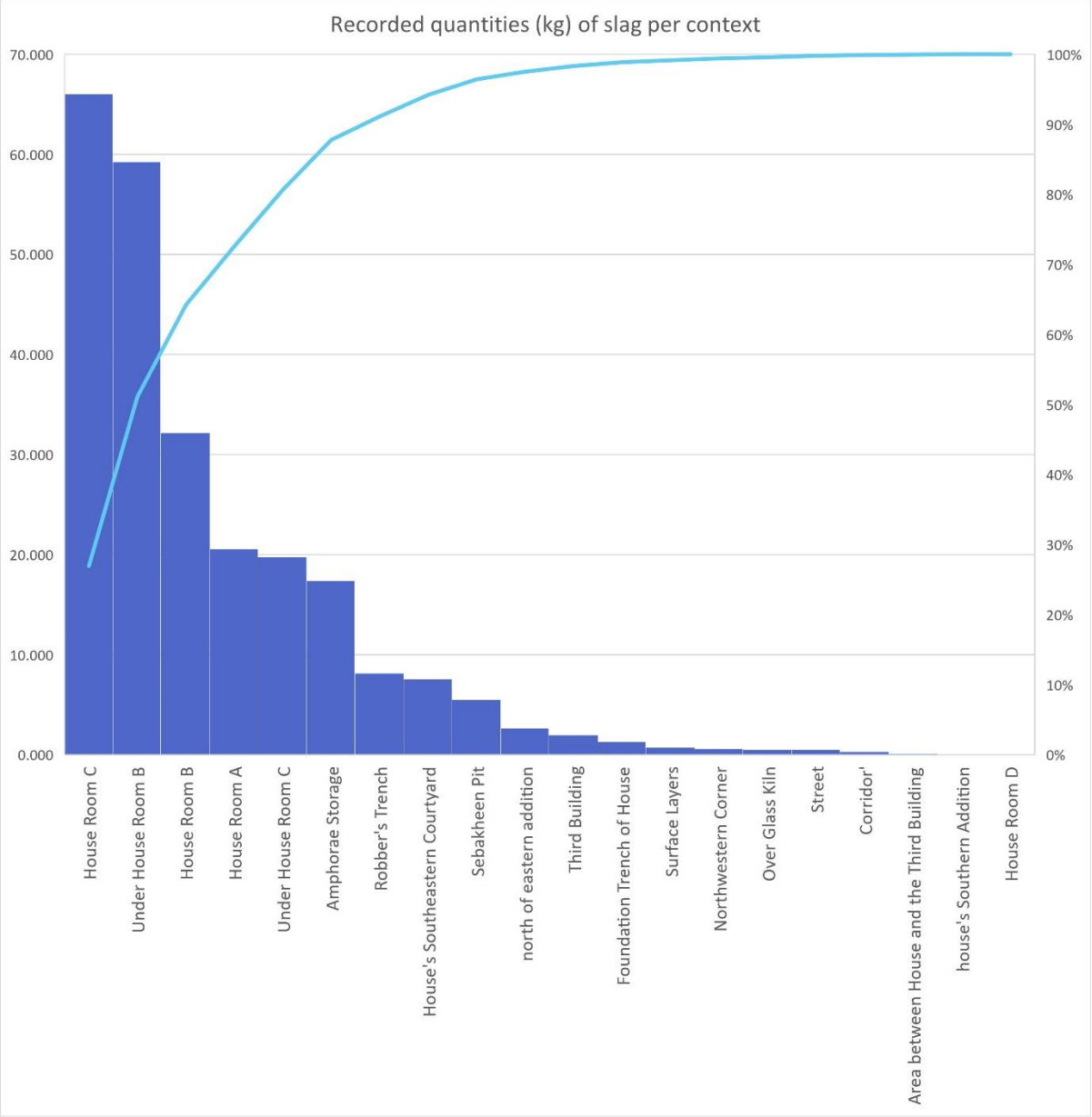


Figure 314 Slag quantities (kg) in each context of the excavation unit. The contexts are ordered with the highest amount of slag to the left and the least to the right.

A production area at Kom al-Ahmer has not been identified yet aside from the glass kilns; therefore, parallels in slag quantities cannot be made presently. Nonetheless, the fact that slag was found in significant quantities (compared to all the other contexts) within the Late Roman house's rooms raises a question regarding its presence. The other investigated buildings had fewer quantities: the amphorae storage building contained 17.4 kg total, the third building had 1.97 kg, and the Roman Room had 11.14 kg. The proximity of the House to the glass kilns' area may explain the difference in quantities. The remains of the rooms, consisting of the basements, exhibited a stratigraphy of extensive soil deposits that seem to relate to the building's abandonment phase. The amount of slag might be related to dumping activities rather than accumulation. The robbed foundation trench F4126 cutting through the house

attests to constructing a new building, which may indicate a refurbishment of the area. Dumping waste materials within the empty rooms may have served the purpose of cleaning the neighbourhood from waste as well as strengthening the space within the rooms, especially in preparation for the construction of a new structure (signalled by the robbed foundation trench); something similar was also noted at Karanis (Barnard et al. 2015: 67).

Despite the chronological and geographical asynchrony, Dorling's excavation report (2011: 22) of an 18th-century iron refining forge in Whitchurch, Herefordshire (United Kingdom), offers interesting insights on the use of slag dumps within buildings and sites, either as slag heaps providing grounds for building foundations, slag dumping within unessential buildings or as sub-bases to floor phases to preserve them from flooding from the nearby river. Though the excavation of the contexts under the House's rooms could only provide a limited view of the earlier phase, F4086 was characterised by slag finds. It lay over F4088, a deposit that included many fired bricks. It could be possible that these layers may have been laid out purposefully as preparation layers for the Late Roman house, at least in the part that was not occupied by an earlier structure (such as the Roman Room). The fact that most slag remains were found within Room C might be related to the preparation for the construction of the building that would have lain within the robbed foundation trench F4126, which cut through Room C. The paucity of slag within the Third Building could be related to the fact that it had been disused before the house; hence, dumping slag and waste within it might not have been needed.

Frit ware

One of the figurines found in the unit was an Harpokrates (or Horus the Child) amulet (KAO 39) in Egyptian blue frit that presented signs of a perforation in its lower central part (Furlan 2019: 298). It was found in F4018, close to the northern wall of Room B. This amulet is one of the few examples of figurines retrieved from the contexts within and around the Late Roman house and the only find in Egyptian blue frit. Like faience, frit ware was not common in the contexts of the case study house.

Wood

Except for charred twigs in hearths, architectural wood remains, and wood artefacts were almost absent from the excavation unit, which leads to the assumption that they were either removed in

antiquity or not preserved, most likely because of the damp environmental conditions. A few examples were retrieved from the Southeastern courtyard (from feature F4131) and Room C (F4215).

- b1957 consisted of three fragments of worked wood exhibiting carved ridges on the top; all three seem to pertain to the different objects due to the difference in size and style of the top ridges. The fragments' shape resembled the curved glass bangle bracelets, but they are too small to infer specific interpretations.



Figure 315 b1957, two of the worked wood fragments.

- b2096 was a small fragment of an irregular shape with two pierced holes in the middle. The holes indicate it would have been suspended, possibly as an ornament or a button.

Lists of artefacts

Table 43 provides the complete list of artefacts that were retrieved during the excavation seasons from 2014 to 2019. The tables allow to correlate the ID numbers of the material culture with those mentioned in the text. Table 44 provides the information of the objects' whose in situ position was recorded.

Table 43 The list of artefacts collected from Kom al-Ahmer Unit 4 during the 2014-2019 excavation seasons.

Context	Feature	Bag. No	KAO/KAP no.	Category	Type	Description	Items	Date of registration in magazine	Weight
Surface Layers	4000	2014-001		pottery		sherds		03/09/2014	
Surface Layers	4000	2014-001		pottery		sherds		03/09/2020	
Surface Layers	4000	2014-003		metal	coin	copper alloy	1	08/09/2014	0,99 g
Surface Layers	4000	2014-004		metal	coin	copper alloy	1	08/09/2014	
Surface Layers	4000	2014-005		metal	coin	copper alloy	1	08/09/2014	0,27 g
Surface Layers	4000	2014-006		bone		fragments - 2 bags	12	08/09/2014	
Surface Layers	4000	2014-008		glass		shards - 2 bags	27	08/09/2014	
Surface Layers	4000	2014-009		metal	coin	copper alloy	1	08/09/2014	2,58 g
Surface Layers	4000	2014-010		metal	coin	copper alloy	1	08/09/2014	
Surface Layers	4000	2014-011		metal	coin	copper alloy	1	08/09/2014	1,61 g
Surface Layers	4000	2014-012		metal	coin	copper alloy	1	08/09/2014	2,17 g
Surface Layers	4000	2014-013		metal	coin	copper alloy	1	08/09/2014	0,33 g
Surface Layers	4000	2014-014		metal	coin	copper alloy	1	08/09/2014	0,27 g
Surface Layers	4000	2014-015	KAO 67	bead	glass	black glass	1	08/09/2014	
Surface Layers	4000	2014-016		metal	coin	copper alloy	1	08/09/2014	1,56 g
Surface Layers	4000	2014-017		slag				08/09/2014	
Surface Layers	4000	2014-018		metal	coin	copper alloy	1	08/09/2014	0,46 g
Surface Layers	4000	2014-019		slag			1	08/09/2014	
Surface Layers	4000	2014-019		slag			7	08/09/2014	
Surface Layers	4000	2014-020		metal	coin	copper alloy	1	08/09/2014	0,83 g
Surface Layers	4000	2014-021		metal	coin	copper alloy	1	08/09/2014	0,21 g
Surface Layers	4000	2014-022		metal	coin	copper alloy	1	08/09/2014	1,21 g
Surface Layers	4000	2014-023		metal	coin	copper alloy	1	08/09/2014	1,89 g
Surface Layers	4000	2014-024		metal	coin	copper alloy	1	08/09/2014	1,64 g
Surface Layers	4000	2014-025	KAO 245	metal	nail	iron nails (2 bags?)	4	08/09/2014	
Surface Layers	4000	2014-026		metal	coin	copper alloy, half coin	1	08/09/2014	0,9 g
Surface Layers	4000	2014-027		metal	coin	copper alloy	1	08/09/2014	1,55 g
Surface Layers	4000	2014-028		metal	coin	copper alloy	1	08/09/2014	0,34 g
Surface Layers	4000	2014-029		metal	coin	copper alloy	1	08/09/2014	2,45 g
Surface Layers	4000	2014-030		metal	coin	copper alloy	1	08/09/2014	0,83 g
Surface Layers	4000	2014-031		metal	coin	copper alloy	1	08/09/2014	2,76 g
Surface Layers	4000	2014-032		metal	coin	copper alloy	1	08/09/2014	2,6 g
Surface Layers	4000	2014-033	KAO 91	stone	object	pestle	1	08/09/2014	
Surface Layers	4000	2014-034		metal	coin	copper alloy	1	08/09/2014	0,5 g
Surface Layers	4000	2014-035		metal	coin	copper alloy	1	08/09/2014	0,34 g

Surface Layers	4000	2014-036		metal	coin	copper alloy	1	08/09/2014	0,65 g
Surface Layers	4000	2014-037	KAO 92	stone		worked fragment	1	08/09/2014	
Surface Layers	4000	2014-038		metal	coin	copper alloy	1	08/09/2014	1,95 g
Surface Layers	4000	2014-039		metal	coin	copper alloy	1	08/09/2014	0,19 g
Surface Layers	4000	2014-040		faience		small fragments	4	08/09/2014	
Surface Layers	4000	2014-041	KAO 93	stone	object	oval pestle, fragmented	1	08/09/2014	
Surface Layers	4000	2014-042		metal	coin	copper alloy	1	08/09/2014	2,39 g
Surface Layers	4000	2014-043		metal	coin	copper alloy	1	08/09/2014	0,68 g
Surface Layers	4000	2014-044		metal	copper alloy	copper alloy fragment	1	08/09/2014	
Surface Layers	4000	2014-045		slag			2	08/09/2014	
Surface Layers	4000	2014-046		metal	coin	copper alloy	1	08/09/2014	3,17 g
Surface Layers	4000	2014-047		metal	coin	copper alloy	1	08/09/2014	1,58 g
Surface Layers	4000	2014-048		metal	coin	copper alloy, half coin	2	08/09/2014	0,15 g
Surface Layers	4000	2014-049		metal	coin	copper alloy	1	08/09/2014	0,6 g
Surface Layers	4000	2014-050	KAO 94	stone	object	round pestle	1	08/09/2014	
Surface Layers	4000	2014-051		shell			2	08/09/2014	
Surface Layers	4000	2014-052		metal	coin	copper alloy	1	08/09/2014	0,15 g
Surface Layers	4000	2014-053	KAO 68	bead	glass	oxidised glass	1	08/09/2014	
Surface Layers	4000	2014-054		metal	coin	copper alloy	1	08/09/2014	1,5 g
Surface Layers	4001	2014-055		bone		bone fragments	76	08/09/2014	
Surface Layers	4001	2014-056		pottery		sherds		06/09/2020	
Surface Layers	4001	2014-057		metal	coin	copper alloy	1	08/09/2014	0,3 g
Surface Layers	4001	2014-058		metal	coin	copper alloy	1	08/09/2014	5,9 g
Surface Layers	4001	2014-059		metal	coin	copper alloy	1	08/09/2014	3,3 g
Surface Layers	4001	2014-060		metal	coin	copper alloy	1	08/09/2014	0,4 g
Surface Layers	4001	2014-061		Metal	coin	bronze coin fragments	2	08/09/2014	no
Surface Layers	4001	2014-062		metal	coin	bronze coin fragments	3	08/09/2014	1,61 g
Surface Layers	4001	2014-063		metal	coin	copper alloy	1	08/09/2014	1,1 g
Surface Layers	4001	2014-064		metal	coin	copper alloy	1	08/09/2014	1,86 g
Surface Layers	4001	2014-065		Metal	coin	copper alloy	1	08/09/2014	2,1 g
Surface Layers	4001	2014-066		metal	coin	copper alloy	2	08/09/2014	1,52 g
Surface Layers	4001	2014-067		metal	coin	copper alloy, half coin	1	08/09/2014	0,2 g
Surface Layers	4001	2014-068		metal	coin	copper alloy	1	08/09/2014	1,2g
Surface Layers	4001	2014-069		metal	coin	copper alloy, half coin	1	08/09/2014	1,1 g
Surface Layers	4001	2014-070		metal	coin	copper alloy	1	08/09/2014	1,9 g
Surface Layers	4001	2014-071		Metal	coin	copper alloy	1	08/09/2014	0,4 g
Surface Layers	4001	2014-072		metal	coin	copper alloy	1	08/09/2014	1,8 g
Surface Layers	4001	2014-073		metal	iron	fragment	1	08/09/2014	
Surface Layers	4001	2014-074		glass		shards	16	08/09/2014	
Surface Layers	4001	2014-075		organic	charcoal	fragments		08/09/2014	
Surface Layers	4001	2014-076		shell				08/09/2014	
Surface Layers	4001	2014-077		slag			1	08/09/2014	
Surface Layers	4002	2014-078		metal	coin	copper alloy	1	08/09/2014	1,9 g
Surface Layers	4002	2014-079		metal	coin	copper alloy	1	08/09/2014	0,1 g

Surface Layers	4002	2014-080		metal	coin	copper alloy	1	08/09/2014	1,43 g
Surface Layers	4002	2014-081		metal	coin	copper alloy	1	08/09/2014	2,4 g
Surface Layers	4002	2014-082		metal	coin	copper alloy	1	08/09/2014	0,43 g
Surface Layers	4002	2014-083		pottery		sherds		06/09/2014	
Surface Layers	4002	2014-083		pottery		sherds		06/09/2014	
Surface Layers	4002	2014-084		metal	nail	iron nails	9	08/09/2014	
Surface Layers	4002	2014-085		metal	copper alloy	copper alloy fragments	4	08/09/2014	
Surface Layers	4002	2014-085		metal	copper alloy	copper alloy fragments	few	17/09/2014	
Surface Layers	4002	2014-086		bone		large and small fragments	108	08/09/2014	
Surface Layers	4002	2014-086		bone				17/09/2014	
Surface Layers	4002	2014-087		glass		shards	30	08/09/2014	
Surface Layers	4002	2014-087		glass		shards	10	17/09/2014	
Surface Layers	4002	2014-088		glass		unguentarium	1	08/09/2014	
Surface Layers	4002	2014-089		glass		unguentarium	1	08/09/2014	
Surface Layers	4002	2014-090		slag		vitrified slag		17/09/2014	
Surface Layers	4002	2014-091		metal	coin	copper alloy, half coin	1	08/09/2014	0,8 g
Surface Layers	4002	2014-092		organic	charcoal			17/09/2014	
Surface Layers	4002	2014-093		shell				17/09/2014	
Surface Layers	4002	2014-094		metal	copper alloy	fragments	2	08/09/2014	
Surface Layers	4002	2014-095		metal	coin	copper alloy	1	08/09/2014	0,96 g
Surface Layers	4002	2014-096		metal	coin	copper alloy	1	08/09/2014	1,05 g
Surface Layers	4002	2014-097		metal	coin	copper alloy	1	08/09/2014	1,15 g
Surface Layers	4002	2014-098		metal	coin	copper alloy, fragmented	1	08/09/2014	
Surface Layers	4002	2014-099		metal	coin	copper alloy	1	08/09/2014	1,46 g
Surface Layers	4002	2014-100		metal	coin	copper alloy	1	08/09/2014	0,52 g
Surface Layers	4002	2014-101		metal	coin	copper alloy	1	08/09/2014	0,37 g
Surface Layers	4002	2014-102		metal	coin	copper alloy	1	08/09/2014	0,87 g
Surface Layers	4002	2014-103		metal	coin	copper alloy	1	08/09/2014	1,15 g
Surface Layers	4002	2014-104		metal	coin	copper alloy	1	08/09/2014	0,31 g
Surface Layers	4002	2014-105		metal	coin	copper alloy, half coin	2	08/09/2014	0,27 g
Surface Layers	4002	2014-106		metal	coin	copper alloy	1	08/09/2014	0,21 g
Surface Layers	4002	2014-107		metal	coin	copper alloy	1	08/09/2014	0,24 g
Surface Layers	4002	2014-108		metal	coin	copper alloy, fragmented	1	08/09/2014	
Surface Layers	4002	2014-109		metal	coin	copper alloy, half coin	1	08/09/2014	0,21 g
Surface Layers	4002	2014-110		metal	coin	copper alloy	1	08/09/2014	1,02 g
Surface Layers	4001	2014-111		metal	coin	copper alloy	1	08/09/2014	0,37 g
Surface Layers	4003	2014-112		pottery		sherds		07/09/2014	
Surface Layers	4003	2014-113		bone				16/09/2014	
Surface Layers	4003	2014-114		glass		shards	5	16/09/2014	
Surface Layers	4003	2014-115		metal	coin	copper alloy coin	1	08/09/2014	0,43 g
Surface Layers	4001	2014-116		metal	copper alloy	copper alloy fragment	1	08/09/2014	
Surface Layers	4001	2014-117		metal	coin	copper alloy, half coin	1	08/09/2014	0,9 g
Surface Layers	4001	2014-118		metal	coin	copper alloy coin	2	08/09/2014	0,18 g
Surface Layers	4001	2014-119	KAO 4	bone	hairpin	hairpin, hand with globe	1	08/09/2014	

Surface Layers	4001	2014-120		metal	copper alloy	copper alloy fragments	2	08/09/2014	
Surface Layers	4002	2014-121		metal	coin	copper alloy coin	1	08/09/2014	0,09 g
Surface Layers	4004	2014-124		pottery		sherds		08/09/2014	
Surface Layers	4004	2014-125		bone				26/09/2014	
Surface Layers	4004	2014-126		bone	worked bone	possible fragment of rim?	1	10/09/2014	
Surface Layers	4004	2014-127	KAO 241	metal	nail	iron nails	3	27/09/2014	
Surface Layers	4004	2014-128		glass		shards	9	27/09/2014	
Surface Layers	4004	2014-129		metal	coin	copper alloy	1	10/09/2014	2,3 g
Surface Layers	4005	2014-130		bone				15/09/2014	
Surface Layers	4004	2014-131		metal	coin	copper alloy	1	10/09/2014	1,23 g
Surface Layers	4005	2014-132		glass		shards	3	15/09/2014	
Surface Layers	4004	2014-133		metal	coin	copper alloy coin	1	10/09/2014	0,4 g
Surface Layers	4004	2014-134		metal	coin	copper alloy coin	1	10/09/2014	6,62 g
Surface Layers	4004	2014-135		metal	coin	copper alloy coin	1	10/09/2014	0,2 g
Surface Layers	4004	2014-136		metal	coin	copper alloy coin	1	10/09/2014	0,52 g
Surface Layers	4004	2014-137		organic	charcoal			26/09/2014	
Surface Layers	4004	2014-138		metal	coin	copper alloy coin	1	10/09/2014	0,77 g
Surface Layers	4004	2014-139		slag		vitrified slag		26/09/2014	
Surface Layers	4004	2014-140		metal	coin	copper alloy coin	1	10/09/2014	2,3 g
Surface Layers	4004	2014-141		metal	coin	copper alloy coin	1	10/09/2014	0,77 g
Surface Layers	4006	2014-142		metal	coin	copper alloy coin	1	10/09/2014	2,3 g
Surface Layers	4006	2014-143		pottery		sherds		10/09/2014	
Surface Layers	4006	2014-144		bone				10/09/2014	
Surface Layers	4006	2014-145		glass		some small shards	2	10/09/2014	
Surface Layers	4007	2014-146		pottery		sherds		08/09/2014	
Surface Layers	4006	2014-147		shell				10/09/2014	
Surface Layers	4006	2014-148		slag			3	10/09/2014	
Surface Layers	4007	2014-149		slag		some fragments (one big)		17/09/2014	
Surface Layers	4007	2014-150		bone				17/09/2014	
Surface Layers	4007	2014-151		glass		shards	18	17/09/2014	
Surface Layers	4007	2014-152		metal	coin	copper alloy coin	1	10/09/2014	0,53 g
Surface Layers	4007	2014-153		metal	coin	copper alloy coin, fragmented	1	10/09/2014	no
Surface Layers	4007	2014-154		metal	coin	copper alloy coin	1	10/09/2014	0,6 g
Surface Layers	4007	2014-155		organic	charcoal			17/09/2014	
Surface Layers	4007	2014-156		metal	coin	copper alloy coin	1	10/09/2014	2,1 g
Surface Layers	4007	2014-157		metal	coin	copper alloy coin	1	10/09/2014	3,4 g
Surface Layers	4007	2014-158		metal	coin	copper alloy coin	1	10/09/2014	1,49 g
Surface Layers	4007	2014-159		shell				17/09/2014	
Surface Layers	4009	2014-160		pottery		sherds		09/09/2014	
Surface Layers	4007	2014-161		metal	coin	copper alloy coin	1	10/09/2014	3,07 g
Surface Layers	4009	2014-162		bone				10/09/2014	
Surface Layers	4009	2014-163		slag			2	10/09/2014	
Surface Layers	4009	2014-164		shell				10/09/2014	
Surface Layers	4009	2014-165		metal	coin	copper alloy coin	1	10/09/2014	0,74 g

Surface Layers	4009	2014-166		glass		shards	3	10/09/2014	
Surface Layers	4009	2014-166		glass		shards	3	10/09/2014	
Surface Layers	4007	2014-167		metal	coin	copper alloy coin	1	10/09/2014	0,43 g
Surface Layers	4009	2014-168		metal	coin?	copper alloy coin or small object	1	10/09/2014	no
Surface Layers	4010	2014-169		pottery		sherds		09/09/2014	
Surface Layers	4010	2014-170		shell				13/09/2014	
Surface Layers	4010	2014-171		organic	charcoal			13/09/2014	
Surface Layers	4010	2014-172		bone				13/09/2014	
Surface Layers	4010	2014-173		metal	coin	copper alloy coin	1	10/09/2014	0,49 g
Surface Layers	4010	2014-174		metal	coin	copper alloy coin	1	10/09/2014	0,55 g
Surface Layers	4010	2014-175		glass		shards	3	13/09/2014	
Surface Layers	4010	2014-176		metal	coin	copper alloy coin	1	13/09/2014	1,32 g
Surface Layers	4010	2014-177		metal	coin	copper alloy, half coin	1	13/09/2014	0,9 g
Surface Layers	4010	2014-178		slag		vitrified slag	1	13/09/2014	
Surface Layers	4010	2014-179		metal	coin	copper alloy, half coin	1	13/09/2014	0,4 g
Surface Layers	4008	2014-180		pottery		sherds		10/09/2014	
Surface Layers	4008	2014-180		bone				15/09/2014	
Surface Layers	4008	2014-182		metal	coin	copper alloy, half coin	1	13/09/2014	0,43 g
Surface Layers	4008	2014-183		metal	object?	possible copper alloy object	1	13/09/2014	
Surface Layers	4008	2014-184		glass		shards	30	15/09/2014	
Surface Layers	4008	2014-185		slag		vitrified slag		15/09/2014	
Surface Layers	4008	2014-186		metal	copper alloy	fragments	few	15/09/2014	
Surface Layers	4008	2014-187		metal	coin	copper alloy coin	1	13/09/2014	2,61 g
Surface Layers	4008	2014-188		metal	coin	copper alloy coin	1	13/09/2014	0,77 g
Surface Layers	4008	2014-189		metal	coin	copper alloy coin	1	13/09/2014	0,33 g
Surface Layers	4008	2014-190		metal	coin	copper alloy, half coin	1	13/09/2014	0,33 g
Surface Layers	4008	2014-191		metal	coin	copper alloy, half coin	1	13/09/2014	0,9 g
Surface Layers	4008	2014-192		organic	charcoal			15/09/2014	
Surface Layers	4008	2014-193		slag		vitrified slag		15/09/2014	
Surface Layers	4008	2014-194		metal	coin	copper alloy coin	1	13/09/2014	2,21 g
Surface Layers	4008	2014-195		metal	coin	copper alloy coin	1	13/09/2014	2,28 g
Surface Layers	4008	2014-196		metal	coin	copper alloy coin	1	13/09/2014	1,3 g
Surface Layers	4008	2014-197		metal	coin	copper alloy coin	1	13/09/2014	1,34 g
Surface Layers	4008	2014-198		shell				15/09/2014	
Surface Layers	4008	2014-199	KAO 95	stone	object	round pestle	1	15/09/2014	
Surface Layers	4008	2014-200		metal	coin	copper alloy coin	1	15/09/2014	2,7 g
Surface Layers	4008	2014-201		metal	coin	copper alloy, half coin	1	15/09/2014	0.8
Surface Layers	4008	2014-202	KAO 96	stone	object	part of grinder	1	15/09/2014	
Surface Layers	4008	2014-203		organic		rise or grain? (modern)		15/09/2014	
Surface Layers	4008	2014-204		metal	coin	copper alloy coin	1	15/09/2014	1,3 g
Surface Layers	4008	2014-205		metal	coin	copper alloy coin	1	15/09/2014	0,68 g
Surface Layers	4008	2014-206		metal	coin	copper alloy coin	1	15/09/2014	no
Surface Layers	4008	2014-207		metal	coin	copper alloy coin	1	15/09/2014	2,84 g
Surface Layers	4008	2014-208		metal	coin	copper alloy coin	1	15/09/2014	0,2 g

Surface Layers	4008	2014-209		metal	coin	copper alloy coin	1	15/09/2014	1 g
Surface Layers	4008	2014-211		metal	coin	copper alloy coin	1	15/09/2014	0,74 g
Surface Layers	4008	2014-212		metal	coin	copper alloy coin	1	15/09/2014	0,77 g
Surface Layers	4008	2014-213		metal	coin	copper alloy coin	1	15/09/2014	26,65 g
Surface Layers	4008	2014-214		metal	coin	copper alloy coin	1	15/09/2014	1,7 g
Surface Layers	4012	2014-215		pottery		sherds		13/09/2014	
Surface Layers	4012	2014-216		metal	coin	copper alloy coin	1	15/09/2014	1,27 g
Surface Layers	4012	2014-217		slag		vitrified slag		23/09/2014	
Surface Layers	4012	2014-218		metal	coin	copper alloy coin	1	15/09/2014	1,3 g
Surface Layers	4012	2014-219		glass		shards	8	26/09/2014	
Surface Layers	4012	2014-220		metal	coin	copper alloy coin	1	15/09/2014	1,08 g
Surface Layers	4012	2014-221		metal	coin	copper alloy coin	1	15/09/2014	3,29 g
Surface Layers	4012	2014-222		bone				23/09/2014	
Surface Layers	4012	2014-223		shell				23/09/2014	
Surface Layers	4011	2014-224		pottery		sherds		13/09/2014	
Surface Layers	4011	2014-225		metal	coin	copper alloy coin	1	15/09/2014	0,34 g
Surface Layers	4011	2014-226		metal	coin	copper alloy coin	1	15/09/2014	1,58 g
Surface Layers	4011	2014-227		metal	coin	copper alloy coin	1	15/09/2014	1,58 g
Surface Layers	4011	2014-228		bone				26/09/2014	
Surface Layers	4012	2014-229		metal	coin	copper alloy coin	1	15/09/2014	1,63 g
Surface Layers	4011	2014-230		metal	coin	copper alloy coin	1	15/09/2014	0,94 g
Surface Layers	4011	2014-231		glass	shards and bracelet?	small shards, among which one possible fragment of glass bracelet (?)	8	27/09/2014	
Surface Layers	4011	2014-232		metal	coin	copper alloy coin	1	15/09/2014	1,71 g
Surface Layers	4011	2014-233		metal	copper alloy	copper alloy fragment	1	15/09/2014	
Surface Layers	4011	2014-234		slag		vitrified slag		26/09/2014	
Surface Layers	4011	2014-235		metal	coin	copper alloy coin	1	15/09/2014	1,58 g
Surface Layers	4011	2014-236		metal	coin	copper alloy coin	1	15/09/2014	2 g
Surface Layers	4011	2014-237		shell				26/09/2014	
Surface Layers	4011	2014-238	KAO 99	stone		worked stone	1	15/09/2014	
Surface Layers	4011	2014-239		metal	coin	copper alloy, half coin	1	15/09/2014	1,46 g
Surface Layers	4005	2014-240		pottery		sherds		14/09/2014	
Surface Layers	4005	2014-241		metal	nail	iron nail	1	15/09/2014	
Surface Layers	4002	2014-242		metal	coin	copper alloy coin	1	15/09/2014	0,9 g
Surface Layers	4002	2014-243		metal	coin	copper alloy, half coin	1	15/09/2014	0,3 g
Surface Layers	4013	2014-244		metal	coin	copper alloy coin	1	15/09/2014	0,49 g
Surface Layers	4013	2014-245		pottery		sherds		14/09/2014	
Surface Layers	4013	2014-246		metal	copper alloy	fragment	1	15/09/2014	
Surface Layers	4013	2014-247		bone				26/09/2014	
Surface Layers	4013	2014-248		slag		vitrified slag		26/09/2014	
Surface Layers	4011	2014-249	KAO 20	bone	fitting	Fragment of a fitting with a carved segment; flat on the back.	1	15/09/2014	
Surface Layers	4011	2014-250		metal	coin	copper alloy coin	1	15/09/2014	0,43 g
Surface Layers	4011	2014-251		metal	coin	copper alloy coin	1	15/09/2014	1,1 g

Surface Layers	4013	2014-252		glass		shards	12	27/09/2014	
Surface Layers	4011	2014-253		metal	coin	copper alloy coin	1	16/09/2014	0,7 g
Surface Layers	4011	2014-254		metal	coin	copper alloy coin	1	16/09/2014	1,34 g
Surface Layers	4011	2014-255		metal	copper alloy	small copper alloy fragments	2	27/09/2014	
Surface Layers	4011	2014-256		metal	coin	copper alloy coin	1	16/09/2014	1,43 g
Surface Layers	4011	2014-257	KAO 6	bone	hairpin	Incomplete. Six fine parallel incisions decorate the top, separating the upper portion from the remainder of the shaft. Some traces of black spots on the surface	1	16/09/2014	
Surface Layers	4011	2014-258	KAO 97	stone	object	pestle	1	16/09/2014	
Surface Layers	4011	2014-259	KAO 242	metal	iron	iron fragments	17	27/09/2014	
Surface Layers	4011	2014-260	KAO 98	stone	object	pestle	1	16/09/2014	
Surface Layers	4011	2014-261		metal	coin	copper alloy coin	1	16/09/2014	0,65 g
Surface Layers	4011	2014-262		metal	coin	copper alloy coin	1	16/09/2014	2 g
Surface Layers	4011	2014-263		metal	coin	copper alloy coin	1	16/09/2014	0,28 g
Surface Layers	4011	2014-264		metal	copper alloy	copper alloy fragment	1	16/09/2014	
Surface Layers	4011	2014-265		metal	coin	copper alloy, half coin	1	16/09/2014	1,52 g
Surface Layers	4011	2014-266		metal	coin	copper alloy coin	1	16/09/2014	0,28 g
Surface Layers	4011	2014-267		metal	coin	copper alloy coin	1	16/09/2014	1,49 g
Surface Layers	4011	2014-268		metal	coin	copper alloy coin	1	16/09/2014	2,45 g
Area of House Room B	4014	2014-269		metal	coin	copper alloy coin	1	16/09/2014	1,36 g
Area of House Room B	4014	2014-270		metal	coin	copper alloy coin	1	16/09/2014	1,27 g
Area of House Room B	4014	2014-271		metal	coin	copper alloy coin	1	16/09/2014	0,4 g
Area of House Room B	4014	2014-272		glass		shards	9	17/09/2014	
Area of House Room B	4014	2014-273		metal	copper alloy	copper alloy fragments	4	16/09/2014	-4232
Area of House Room B	4014	2014-274		metal	coin	copper alloy coin	1	16/09/2014	0,2 g
Area of House Room B	4014	2014-275		metal	copper alloy	copper alloy fragments	3	16/09/2014	no
Area of House Room B	4014	2014-276		metal	coin	copper alloy coin	1	16/09/2014	0,5 g
Area of House Room B	4014	2014-277		metal	coin	copper alloy coin	1	16/09/2014	1,3 g
Area of House Room B	4014	2014-278		metal	coin	copper alloy coin	1	16/09/2014	1,67 g
Area of House Room B	4014	2014-279		metal	coin	copper alloy coin	1	16/09/2014	1,2 g
Area of House Room B	4014	2014-280		metal	coin	copper alloy coin	1	16/09/2014	3,3 g
Area of House Room B	4014	2014-281		metal	coin	copper alloy coin	1	16/09/2014	0,7 g
Area of House Room B	4014	2014-282		metal	coin	copper alloy coin	1	16/09/2014	1,18 g
Area of House Room B	4014	2014-283		metal	coin	copper alloy coin	1	16/09/2014	0,26 g

Area of House Room B	4014	2014-284		metal	coin	copper alloy coin	1	16/09/2014	1.24 g
Area of House Room B	4014	2014-285		metal	coin	copper alloy coin	1	16/09/2014	0,2 g
Area of House Room B	4014	2014-286		metal	coin	copper alloy coin	1	16/09/2014	0,53 g
Area of House Room B	4014	2014-287		pottery		sherds		15/09/2014	
Area of House Room B	4014	2014-288		bone				17/09/2014	
Area of House Room B	4014	2014-289		metal	copper alloy	copper alloy fragments	3	16/09/2014	no
Area of House Room B	4014	2014-290		metal	copper alloy	copper alloy fragments	1	16/09/2014	0,33 g
Area of House Room B	4014	2014-291		metal	coin	copper alloy coin	1	16/09/2014	0,26 g
Area of House Room B	4014	2014-292		metal	coin	copper alloy coin	1	16/09/2014	2,45 g
Area of House Room B	4014	2014-293		shell				17/09/2014	
Area of House Room B	4014	2014-294		metal	coin	copper alloy coin	1	16/09/2014	0,1 g
Area of House Room B	4014	2014-295		metal	coin	copper alloy coin	1	16/09/2014	0,26 g
Area of House Room B	4014	2014-296		metal	coin	copper alloy coin	1	16/09/2014	1,7 g
Area of House Room B	4015	2014-297		metal	copper alloy	copper alloy fragment	1	17/09/2014	
Area of House Room B	4014	2014-298		metal	coin	copper alloy coin	1	16/09/2014	0,7 g
Area of House Room B	4014	2014-299		metal	coin	copper alloy coin	1	16/09/2014	0,17 g
Area of House Room B	4014	2014-300		metal	coin	copper alloy, half coin	1	16/09/2014	0,2 g
Area of House Room B	4014	2014-301		metal	coin	copper alloy coin	1	16/09/2014	0,34 g
Area of House Room B	4014	2014-302		metal	coin	copper alloy coin	1	16/09/2014	1,2 g
Area of House Room B	4014	2014-303		metal	copper alloy	copper alloy fragments	2	16/09/2014	0,71 g
Area of House Room B	4014	2014-304		metal	coin	copper alloy coin	1	16/09/2014	8,3 g
Area of House Room B	4014	2014-305	KAO 45	faience		fragments	16	16/09/2014	
Area of House Room B	4014	2014-306		slag				17/09/2014	
Area of House Room B	4014	2014-307		slag		iron slag		17/09/2014	
Area of House Room B	4015	2014-308		pottery		sherds		16/09/2014	
Area of House Room B	4015	2014-309	KAO 185	metal	copper alloy	copper alloy fragment	1	17/09/2014	
Area of House Room B	4015	2014-310		metal	coin	copper alloy coin	1	17/09/2014	o,49 g
Area of House Room B	4015	2014-311		metal	coin	copper alloy coin	1	17/09/2014	0,37 g
Area of House Room B	4015	2014-312		metal	coin	copper alloy coin	1	17/09/2014	1,74 g

Area of House Room B	4015	2014-313		bone				17/09/2014	
Area of House Room B	4015	2014-314		glass		shards	1	17/09/2014	
Area of House Room B	4015	2014-315		slag		vitrified slag		17/09/2014	
Area of House Room B	4016	2014-316		bone				23/09/2014	
Area of House Room B	4016	2014-317		pottery		sherds		16/09/2014	
Area of House Room B	4016	2014-318		organic	charcoal			23/09/2014	
Area of House Room B	4016	2014-319		glass		shards	13	26/09/2014	
Area of House Room B	4016	2014-320		metal	coin	copper alloy coin	1	17/09/2014	2,5 g
Area of House Room B	4016	2014-321		metal	coin	copper alloy coin	1	17/09/2014	0,27 g
Area of House Room B	4016	2014-322	KAO 46	faience			2	17/09/2014	
Area of House Room B	4016	2014-323		shell				23/09/2014	
Area of House Room B	4016	2014-324		slag		vitrified slag		23/09/2014	
Area of House Room B	4016	2014-325		metal	copper alloy	copper alloy fragments	some	23/09/2014	
Area of House Room B	4016	2014-326		metal	coin	copper alloy coin	1	17/09/2014	1,87 g
Area of House Room B	4016	2014-327		metal	coin	copper alloy coin	1	17/09/2014	0,61 g
Area of House Room B	4016	2014-328		metal	coin	copper alloy coin	1	17/09/2014	0,74 g
Area of House Room B	4016	2014-329		metal	coin	copper alloy coin	1	17/09/2014	0,34 g
Area of House Room B	4016	2014-330		metal	coin	copper alloy coin	1	17/09/2014	1,33 g
Area of House Room B	4016	2014-331		metal	coin	copper alloy coin	1	17/09/2014	0,74 g
Surface Layers	4002	2014-333		metal	coin	copper alloy coin	1	17/09/2014	3,12 g
Surface Layers	4002	2014-334		metal	coin	copper alloy coin	1	17/09/2014	0.83
Area of House Room B	4016	2014-335	KAO 100	stone		worked fragment	1	17/09/2014	
Surface Layers	4002	2014-336		metal	coin	copper alloy coin	1	17/09/2014	2,36 g
Area of House Room B	4016	2014-337		metal	coin	copper alloy coin	fragments	17/09/2014	no
Surface Layers	4002	2014-338		metal	coin	copper alloy coin	1	17/09/2014	1,06 g
House Room A	4017	2014-339		metal	coin	copper alloy coin	1	20/09/2014	10,6 g
House Room A	4017	2014-340		metal	coin	copper alloy coin	1	20/09/2014	2 g
House Room A	4017	2014-341		metal	coin	copper alloy coin	1	21/09/2014	0,65 g
House Room A	4017	2014-342		metal	coin	copper alloy coin	1	20/09/2014	1,86 g
House Room A	4017	2014-343	KAO 101	stone		worked stone	1	21/09/2014	
House Room A	4017	2014-343		stone		worked stone		20/09/2014	
House Room A	4017	2014-344		bone				21/09/2014	
House Room A	4017	2014-345		metal	coin	copper alloy coin	1	20/09/2014	7,58 g
House Room A	4017	2014-346		metal	coin	copper alloy coin	1	20/09/2014	0,33 g

House Room A	4017	2014-347		metal	coin	copper alloy, half coin	1	20/09/2014	5,16 g
House Room A	4017	2014-348		metal	copper alloy	small fragment	1	21/09/2014	
House Room A	4017	2014-349		metal	coin	copper alloy coin	1	20/09/2014	1,2 g
House Room A	4017	2014-350		pottery		sherds		17/09/2014	
House Room A	4017	2014-351		metal	coin	copper alloy coin	1	20/09/2014	2,33 g
House Room A	4017	2014-352		metal	coin	copper alloy coin	1	20/09/2014	0,71 g
House Room A	4017	2014-353		slag		vitrified slag		21/09/2014	
House Room A	4017	2014-354		metal	coin	copper alloy coin	1	20/09/2014	1 g
House Room A	4017	2014-355		metal	coin	copper alloy coin	1	20/09/2014	1,27 g
House Room A	4017	2014-356		metal	coin	copper alloy coin	1	20/09/2014	1 g
House Room A	4017	2014-357		metal	coin	copper alloy coin	1	20/09/2014	1,1 g
House Room A	4017	2014-358		metal	coin	copper alloy coin	1	20/09/2014	1,46 g
House Room A	4017	2014-359		metal	coin	copper alloy coin	1	20/09/2014	1,3 g
House Room A	4017	2014-360		metal	coin	copper alloy coin	1	20/09/2014	0,2 g
House Room A	4017	2014-361		metal	coin	copper alloy coin	1	20/09/2014	1,49 g
House Room A	4017	2014-362		metal	coin	copper alloy coin	1	20/09/2014	1,36 g
House Room A	4017	2014-363		metal	coin	copper alloy coin	1	20/09/2014	0,27 g
House Room A	4017	2014-364		metal	coin	copper alloy coin	1	20/09/2014	0,59 g
House Room A	4017	2014-365		metal	coin	copper alloy coin	1	20/09/2014	0,58 g
Area of House Room B	4020	2014-366		glass		shards	61	26/09/2014	
House Room A	4017	2014-367		metal	coin	copper alloy coin	1	20/09/2014	0,3 g
House Room A	4017	2014-368		metal	coin	copper alloy coin	1	20/09/2014	0,15 g
House Room A	4017	2014-369		metal	copper alloy	copper alloy fragments	some	20/09/2014	no
House Room A	4017	2014-370		metal	coin	copper alloy coin	1	20/09/2014	0,86 g
House Room A	4017	2014-371		metal	coin	copper alloy coin	1	20/09/2014	0,2 g
House Room A	4017	2014-372		metal	coin	copper alloy coin	1	20/09/2014	0,58 g
House Room A	4017	2014-373		metal	coin	copper alloy coin	1	20/09/2014	0,33 g
Area of House Room B	4020	2014-373		bone				23/09/2014	
House Room A	4017	2014-374		glass		shards	7	21/09/2014	
House Room A	4017	2014-375		metal	coin	copper alloy coin	1	20/09/2014	0,2 g
House Room A	4017	2014-376		metal	coin	copper alloy coin	1	20/09/2014	1,46 g
House Room A	4017	2014-377		metal	coin	copper alloy coin	1	20/09/2014	2,3 g
House Room A	4017	2014-378		metal	coin	copper alloy, half coin	1	20/09/2014	0,5 g
House Room A	4017	2014-379		metal	coin	copper alloy coin	1	20/09/2014	0,2 g
House Room A	4017	2014-380		metal	coin	copper alloy coin	1	20/09/2014	0,78 g
House Room A	4017	2014-381		metal	coin	copper alloy coin	1	20/09/2014	0,4 g
House Room A	4017	2014-382		metal	coin	copper alloy coin		20/09/2014	0,55 g
House Room A	4017	2014-383		metal	coin	copper alloy coin	1	20/09/2014	0,68 g
House Room A	4017	2014-384		metal	coin	copper alloy coin	1	20/09/2014	0,25 g
House Room A	4017	2014-384		metal	coin	copper alloy coin		20/09/2014	0,59 g
House Room A	4017	2014-386		metal	coin	copper alloy coin cluster		21/09/2014	
House Room A	4017	2014-387	KAO 186	metal	copper alloy	copper alloy fragments	3	21/09/2014	
House Room A	4017	2014-388		metal	coin	copper alloy coin	1	20/09/2014	0,58 g

House Room A	4017	2014-389		metal	coin	copper alloy coin	1	20/09/2014	0,17 g
House Room A	4017	2014-390		metal	coin	copper alloy coin	1	20/09/2014	0,3 g
House Room A	4017	2014-391		metal	coin	copper alloy coin	1	20/09/2014	0,26 g
House Room A	4017	2014-392		metal	copper alloy	copper alloy fragments	2	20/09/2014	0,2 g
House Room A	4017	2014-393		metal	coin	copper alloy coin	1	20/09/2014	0,77 g
House Room A	4017	2014-394		metal	coin	copper alloy coin	1	20/09/2014	0,26 g
House Room A	4017	2014-395		metal	coin	copper alloy coin	1	20/09/2014	0,2 g
House Room A	4017	2014-396		metal	coin	copper alloy coin	1	20/09/2014	0,78 g
House Room A	4017	2014-397		metal	coin	copper alloy coin	1	20/09/2014	1 g
Area of House Room B	4018	2014-398		metal	coin	copper alloy coin	1	20/09/2014	1,27 g
House Room A	4017	2014-399		metal	coin	copper alloy coin	1	20/09/2014	1,46 g
House Room A	4017	2014-400		metal	coin	copper alloy coin	1	20/09/2014	2,36 g
House Room A	4017	2014-401		metal	coin	copper alloy coin	2	20/09/2014	1,39 g
Area of House Room B	4019	2014-4019		metal	copper alloy	copper alloy fragments	some	21/09/2014	no
House Room A	4017	2014-402		metal	copper alloy	copper alloy fragments	3	20/09/2014	no
House Room A	4017	2014-403		metal	coin	copper alloy coin	1	20/09/2014	0,55 g
Area of House Room B	4019	2014-403		metal	coin	copper alloy coin	1	21/09/2014	3,45 g
House Room A	4017	2014-404		metal	coin	copper alloy coin	1	20/09/2014	3,79 g
Area of House Room B	4018	2014-405	KAO 39	figurine	Egyptian blue frit	amulet of Harpokrates or Horus the Child, incomplete, perforated	1	20/09/2014	
Area of House Room B	4018	2014-406		bone				21/09/2014	
Area of House Room B	4018	2014-407		metal	coin	copper alloy coin		20/09/2014	1,14 g
Area of House Room B	4018	2014-408		metal	coin	copper alloy coin	1	20/09/2014	0,58 g
Area of House Room B	4018	2014-409		metal	coin	copper alloy coin	1	20/09/2014	1,28 g
Area of House Room B	4018	2014-410		metal	coin	copper alloy coin	1	20/09/2014	0,5 g
Area of House Room B	4018	2014-411		metal	coin	copper alloy coin	1	20/09/2014	0,27 g
Area of House Room B	4018	2014-412		metal	coin	copper alloy coin	1	20/09/2014	0,45 g
Area of House Room B	4018	2014-413		metal	coin	copper alloy coin	1	20/09/2014	2,85 g
Area of House Room B	4018	2014-414		metal	coin	copper alloy coin	1	20/09/2014	0,36 g
Area of House Room B	4018	2014-415		glass		shards	42	21/09/2014	
Area of House Room B	4018	2014-416		slag		vitrified slag		21/09/2014	
Area of House Room B	4018	2014-417		shell				21/09/2014	
Area of House Room B	4018	2014-418		metal	coin	copper alloy coin	1	20/09/2014	1,71 g
Area of House Room B	4018	2014-419		metal	copper alloy	copper alloy fragments	2	21/09/2014	
Area of House Room B	4018	2014-420		metal	coin	copper alloy, half coin	1	20/09/2014	1,3 g

Area of House Room B	4018	2014-421		metal	coin	copper alloy coin	1	20/09/2014	2 g
Area of House Room B	4018	2014-422		metal	coin	copper alloy coin	1	20/09/2014	1,3 g
Area of House Room B	4018	2014-423		metal	coin	copper alloy coin	1	20/09/2014	0,37 g
Area of House Room B	4018	2014-424		metal	coin	copper alloy coin	1	20/09/2014	0,77 g
Area of House Room B	4018	2014-425		metal	coin	copper alloy coin	1	20/09/2014	no
Area of House Room B	4018	2014-426		metal	coin	copper alloy coin	1	20/09/2014	0,37 g
Area of House Room B	4018	2014-427		metal	coin	copper alloy coin	1	20/09/2014	1,2 g
Area of House Room B	4018	2014-428		metal	coin	copper alloy coin	1	20/09/2014	0,3 g
Area of House Room B	4018	2014-429		metal	coin	copper alloy coin	1	20/09/2014	0,34 g
Area of House Room B	4018	2014-430		metal	copper alloy	copper alloy fragments	2	20/09/2014	0,7 g
Area of House Room B	4018	2014-431		metal	coin	copper alloy coin		20/09/2014	0,68 g
Area of House Room B	4018	2014-432		metal	coin	copper alloy coin	1	20/09/2014	0,34 g
Area of House Room B	4018	2014-433		metal	coin	copper alloy coin		20/09/2014	0,5 g
Area of House Room B	4018	2014-434		metal	coin	copper alloy coin		20/09/2014	0,18 g
Area of House Room B	4018	2014-435		metal	coin	copper alloy, half coin	1	20/09/2014	1 g
Area of House Room B	4018	2014-436		metal	coin	copper alloy, half coin		20/09/2014	0,32 g
Area of House Room B	4018	2014-437	KAO 47	faience		fragments	1	21/09/2014	
Area of House Room B	4018	2014-438		pottery		sherds		17/09/2014	
Area of House Room B	4018	2014-439		metal	coin	copper alloy coin	1	20/09/2014	1,2 g
Area of House Room B	4018	2014-440		metal	coin	copper alloy coin	1	20/09/2014	1,78 g
Area of House Room B	4018	2014-441		metal	copper alloy	small fragment	1	21/09/2014	
Area of House Room B	4018	2014-442		metal	coin	copper alloy, half coin		20/09/2014	0,55 g
Area of House Room B	4018	2014-443		metal	coin	copper alloy coin	1	20/09/2014	1,64 g
Area of House Room B	4018	2014-444		metal	coin	copper alloy coin	1	20/09/2014	0,28 g
Area of House Room B	4018	2014-445		metal	coin	copper alloy coin		20/09/2014	3,2 g
Area of House Room B	4018	2014-446		metal	coin	copper alloy coin	1	20/09/2014	1,03 g
Area of House Room B	4018	2014-447		metal	coin	copper alloy coin	1	20/09/2014	3,3 g
Area of House Room B	4018	2014-448		metal	coin	copper alloy coin	1	20/09/2014	1,69 g
Area of House Room B	4018	2014-449		metal	coin	copper alloy coin	1	20/09/2014	0,15 g

Area of House Room B	4018	2014-450		stone	object	pestle		21/09/2014	
Area of House Room B	4018	2014-451		metal	coin	copper alloy coin	1	21/09/2014	3,45 g
Area of House Room B	4018	2014-452		metal	coin	copper alloy coin	1	21/09/2014	1,1 g
Area of House Room B	4018	2014-453		metal	coin	copper alloy coin	1	21/09/2014	1,5 g
Area of House Room B	4018	2014-454		metal	coin	copper alloy coin	1	21/09/2014	0,41 g
Area of House Room B	4018	2014-455		metal	coin	copper alloy coin	1	21/09/2014	1,49 g
Area of House Room B	4019	2014-456		metal	coin	copper alloy coin	1	21/09/2014	1,2 g
Area of House Room B	4019	2014-457		glass		shards	30	22/09/2014	
Area of House Room B	4019	2014-458		bone		fragments		22/09/2014	
Area of House Room B	4019	2014-459		pottery		sherds		20/09/2014	
Area of House Room B	4019	2014-460		slag				22/09/2014	
Area of House Room B	4019	2014-461		metal	coin	copper alloy coin	1	21/09/2014	0,1 g
Area of House Room B	4019	2014-462		metal	coin	copper alloy coin	1	21/09/2014	1,49 g
Area of House Room B	4019	2014-463		shell				22/09/2014	
Area of House Room B	4019	2014-464		metal	coin	copper alloy coin	1	21/09/2014	0,71 g
Area of House Room B	4018	2014-465		metal	coin	copper alloy coin	1	21/09/2014	0,75 g
Area of House Room B	4018	2014-466		metal	coin	copper alloy coin	1	21/09/2014	0,25 g
Area of House Room B	4019	2014-467		metal	coin	copper alloy coin	1	21/09/2014	0,14 g
Area of House Room B	4019	2014-467		metal	coin	copper alloy coin	1	21/09/2014	0,36 g
Area of House Room B	4018	2014-468		metal	coin	copper alloy coin	1	21/09/2014	1,71 g
Area of House Room B	4020	2014-469		pottery		sherds		21/09/2014	
Area of House Room B	4019	2014-469		faience		very fragile small fragments	few	22/09/2014	
Area of House Room B	4019	2014-470		metal	coin	copper alloy coin	1	21/09/2014	2,51 g
Area of House Room B	4019	2014-471		metal	coin	copper alloy coin	1	21/09/2014	0,6 g
Area of House Room B	4019	2014-472		metal	coin	copper alloy coin	1	21/09/2014	0,3 g
Area of House Room B	4019	2014-473	KAO 187	metal	copper alloy	copper alloy fragment	1	21/09/2014	
Area of House Room B	4019	2014-474	KAO 35	bone	object	semi-circular object with a small hollow in the centre, flat on the other side	1	21/09/2014	
Area of House Room B	4019	2014-475		metal	coin	copper alloy coin	1	21/09/2014	1,49 g
Area of House Room B	4019	2014-476	KAO 188	metal	copper alloy	copper alloy fragment	1	21/09/2014	

Area of House Room B	4019	2014-477		metal	coin	copper alloy coin	1	21/09/2014	0,77 g
Area of House Room B	4019	2014-478		metal	copper alloy	copper alloy fragments	2	21/09/2014	no
Area of House Room B	4019	2014-479		metal	coin	copper alloy coin	1	21/09/2014	0,1 g
Area of House Room B	4019	2014-480		metal	coin	copper alloy coin	1	21/09/2014	1,2 g
Area of House Room B	4019	2014-481		metal	coin	copper alloy coin	1	21/09/2014	0,87 g
Area of House Room B	4019	2014-482		metal	copper alloy	copper alloy fragments	3	21/09/2014	no
Area of House Room B	4019	2014-483		metal	coin	coppe alloy coin, very fragmented	1	21/09/2014	no
Area of House Room B	4019	2014-484		metal	coin	copper alloy coin	1	21/09/2014	0,43 g
Area of House Room B	4019	2014-485		metal	coin	copper alloy coin	1	21/09/2014	1,2 g
Area of House Room B	4019	2014-486		metal	coin	copper alloy coin	1	21/09/2014	0,71 g
Area of House Room B	4019	2014-488		metal	coin	copper alloy coin	1	21/09/2014	2,2 g
Area of House Room B	4019	2014-489		metal	coin	copper alloy coin	1	21/09/2014	0,3 g
Area of House Room B	4019	2014-490		metal	coin	copper alloy coin	1	21/09/2014	0,1 g
Area of House Room B	4019	2014-491		metal	coin	copper alloy coin	1	21/09/2014	1,49 g
Area of House Room B	4019	2014-492		metal	coin	coppe alloy coin, very fragmented	1	21/09/2014	no
Area of House Room B	4019	2014-493		metal	coin	copper alloy coin	1	21/09/2014	1,33 g
Area of House Room B	4019	2014-494		metal	coin	copper alloy coin	1	21/09/2014	0,55 g
Area of House Room B	4019	2014-495		metal	copper alloy	copper alloy fragments	2	21/09/2014	1,46 g
Area of House Room B	4019	2014-496		metal	copper alloy	copper alloy fragments	2	21/09/2014	no
Area of House Room B	4019	2014-497		metal	coin	copper alloy coin	1	21/09/2014	1,71 g
Area of House Room B	4019	2014-499		metal	coin	copper alloy coin	1	21/09/2014	0,7 g
Area of House Room B	4019	2014-500		metal	coin	copper alloy coin	1	21/09/2014	0,32 g
Area of House Room B	4019	2014-501		metal	coin	copper alloy coin	1	21/09/2014	0,3 g
Area of House Room B	4019	2014-502		metal	coin	copper alloy coin	1	21/09/2014	0,27 g
Area of House Room B	4019	2014-504		metal	coin	copper alloy, half coin	1	22/09/2014	0,37 g
Area of House Room B	4019	2014-505		metal	coin	copper alloy coin	1	22/09/2014	0,68 g
Area of House Room B	4019	2014-506		metal	coin	copper alloy coin	1	22/09/2014	0,59 g
Area of House Room B	4019	2014-507		metal	coin	copper alloy coin	1	22/09/2014	3g
Area of House Room B	4020	2014-508		metal	coin	copper alloy coin, fragmented	1	22/09/2014	no

Area of House Room B	4020	2014-509		metal	coin	copper alloy coin	1	22/09/2014	0,24 g
Area of House Room B	4020	2014-510		metal	coin	copper alloy coin	1	22/09/2014	0,5 g
Area of House Room B	4020	2014-511		metal	coin	copper alloy coin	1	22/09/2014	1,61 g
Area of House Room B	4020	2014-512		metal	coin	copper alloy coin	1	22/09/2014	2,14 g
Area of House Room B	4020	2014-513		metal	coin	copper alloy coin	1	22/09/2014	2 g
Area of House Room B	4020	2014-514		metal	coin	copper alloy coin	1	22/09/2014	1,2 g
Area of House Room B	4020	2014-515		metal	coin	copper alloy coin fragmented	1	22/09/2014	no
Area of House Room B	4020	2014-516		metal	coin	copper alloy coin	1	22/09/2014	1,3 g
Area of House Room B	4020	2014-517		metal	coin	copper alloy coin	1	22/09/2014	0,3 g
Area of House Room B	4020	2014-518		metal	coin	copper alloy coin	1	22/09/2014	1,3 g
Area of House Room B	4020	2014-519	KAO 19	bone	hairpin	fragment of upper portion of a hairpin	1	22/09/2014	
Area of House Room B	4020	2014-520	KAO 139	plaster	painted	painted plaster fragments (red and yellow)	2	26/09/2014	
Area of House Room B	4020	2014-521		metal	coin	copper alloy coin	1	22/09/2014	0,7 g
Area of House Room B	4020	2014-522		shell				23/09/2014	
Area of House Room B	4020	2014-523		metal	coin	copper alloy coin	1	22/09/2014	0,59 g
Area of House Room B	4020	2014-524		metal	coin	copper alloy coin	1	22/09/2014	1,71 g
Area of House Room B	4020	2014-525		metal	coin	copper alloy coin	1	22/09/2014	0,59 g
Area of House Room B	4020	2014-526		metal	coin	copper alloy, two coins found together	2	22/09/2014	0,83 e 1,3 g
Area of House Room B	4020	2014-527		metal	coin	copper alloy coin	1	22/09/2014	1.71 g
Area of House Room B	4020	2014-528		metal	coin	copper alloy coin	1	22/09/2014	1,21 g
Area of House Room B	4020	2014-529		metal	coin	copper alloy coin	1	22/09/2014	0,33 g
Area of House Room B	4020	2014-530		metal	coin	copper alloy coin	1	22/09/2014	1,1 g
Area of House Room B	4020	2014-531		metal	coin	copper alloy coin	1	22/09/2014	1,43 g
Area of House Room B	4020	2014-532		stone	object	pestle	1	22/09/2014	
Area of House Room B	4020	2014-533		metal	coin	copper alloy coin	1	22/09/2014	0,1 g
Area of House Room B	4020	2014-534		slag		vitrified slag		23/09/2014	
Area of House Room B	4020	2014-535		metal	coin	copper alloy coin	1	22/09/2014	0,33 g
Area of House Room B	4020	2014-536		metal	coin	copper alloy coin	1	22/09/2014	3,3 g
Area of House Room B	4020	2014-537		metal	coin	copper alloy coin	1	22/09/2014	2 g

Area of House Room B	4020	2014-538		metal	coin	copper alloy, half coin	1	22/09/2014	1,2 g
Area of House Room B	4020	2014-539		metal	copper alloy	fragmented object	5	22/09/2014	
Area of House Room B	4020	2014-540		metal	coin	copper alloy coin	1	24/09/2014	1,2 g
Area of House Room B	4020	2014-540		metal	coin	copper alloy coins (from the sieve)	9	24/09/2014	
Area of House Room B	4020	2014-541	KAO 7	bone	hairpin	hairpin, undecorated	1	22/09/2014	
Area of House Room B	4020	2014-542		metal	coin	copper alloy coin	1	24/09/2014	1,36 g
Area of House Room B	4020	2014-543		metal	coin	copper alloy coin	1	24/09/2014	7,77 g
Area of House Room B	4020	2014-544		metal	coin	copper alloy coin	1	24/09/2014	0,55 g
Area of House Room B	4020	2014-545		metal	copper alloy	copper alloy fragment	1	26/09/2014	
Area of House Room B	4020	2014-546		metal	coin	copper alloy coin	1	24/09/2014	0,77 g
House Room A	4021	2014-547		pottery		sherds		22/09/2014	
House Room A	4021	2014-548		slag		vitrified slag		23/09/2014	
House Room A	4021	2014-549	KAO 243	metal	nail	iron nail fragments	3	26/09/2014	
House Room A	4021	2014-550		metal	coin	copper alloy coin	1	24/09/2014	0,23 g
House Room A	4021	2014-551		metal	coin	copper alloy coin	1	24/09/2014	0,2 g
House Room A	4021	2014-552		bone				23/09/2014	
House Room A	4021	2014-553		glass		shards	7	26/09/2014	
House Room A	4021	2014-554		metal	coin	copper alloy coin	1	24/09/2014	7,65 g
House Room A	4021	2014-555		metal	coin	copper alloy coin	1	24/09/2014	0,33 g
House Room A	4021	2014-556		metal	coin	copper alloy coin, fragmented	1	24/09/2014	no
House Room A	4021	2014-557		metal	copper alloy	small fragments	some	26/09/2014	
House Room A	4021	2014-558		metal	coin	copper alloy coin	1	24/09/2014	0,33 g
House Room A	4021	2014-559		metal	coin	copper alloy coin	1	24/09/2014	0,15 g
House Room A	4021	2014-560		metal	coin	copper alloy coin, fragmented	1	24/09/2014	0,37 g
House Room A	4021	2014-561		metal	copper alloy	copper alloy fragment	1	26/09/2014	
House Room A	4021	2014-562		metal	coin	copper alloy coin	1	24/09/2014	0,5 g
House Room A	4021	2014-563		metal	coin	copper alloy coin	1	24/09/2014	2,42 g
House Room A	4021	2014-564		metal	coin	copper alloy coin	1	24/09/2014	0,74 g
House Room A	4021	2014-566		metal	coin	copper alloy coin	1	24/09/2014	1,58 g
House Room A	4021	2014-567		metal	coin	copper alloy coin	1	24/09/2014	1,3 g
House Room A	4021	2014-568		stone	marble	worked fragment of marble	1	26/09/2014	
Surface Layers	4012	2014-569	KAO 40	figurine	painted stone	Large Nefertem amulet in painted limestone	1	24/09/2014	13,85 g
House Room A	4021	2014-571		stone	object	pestle	1	26/09/2014	
House Room A	4021	2014-572	KAO 48	faience			1	26/09/2014	
Area between House and Third Building	4023	2014-573		pottery		sherds		22/09/2014	
Area between House and Third Building	4023	2014-574		bone				26/09/2014	

Area of House Room B	4016	2014-575	KAO 34	bone	blade	worked fragment, possibly part of a blade	1	24/09/2014	
Over Third Building	4025	2014-578		pottery		sherds		25/09/2014	
Over Third Building	4025	2014-579		bone				26/09/2014	
Over Third Building	4025	2014-580		glass		fragment of base	1	27/09/2014	
Over Third Building	4025	2014-581		metal	coin	copper alloy coin	1	27/09/2014	0,36 g
Over Third Building	4025	2014-582		metal	coin	copper alloy coin	1	27/09/2014	0,3 g
Over Third Building	4025	2014-583		metal	coin	copper alloy coin	1	27/09/2014	0,63 g
House Room A	4065	2015-584		pottery		sherds		11/06/2015	
House Room A	4065	2015-585		slag		big, medium and small fragments	170	14/06/2015	7.4 kg
House Room A	4065	2015-586		bone		medium and small fragments	circa 50	14/06/2015	
House Room A	4065	2015-587		glass		medium and small fragments	around 19	14/06/2015	
House Room A	4065	2015-588		shell		big, medium and small fragments	circa 20	14/06/2015	
House Room A	4065	2015-589		metal	coin	copper alloy coin	1	11/06/2015	
House Room A	4065	2015-590		metal	coin	copper alloy coin	1	11/06/2015	
House Room A	4065	2015-591		metal	coin	copper alloy coin	1	11/06/2015	
House Room A	4065	2015-592	KAO 189	metal	copper alloy	copper alloy fragment	1	13/06/2015	
House Room A	4065	2015-593		metal	copper alloy	copper alloy fragments	2	13/06/2015	
House Room A	4065	2015-594		metal	coin	copper alloy coin	1	11/06/2015	
House Room A	4065	2015-595	KAO 140	plaster	painted	medium and small painted fragments	80	14/06/2015	
House Room A	4065	2015-596	KAO 102	stone	object	pestle	1	11/06/2015	
House Room A	4065	2015-597	KAO 42	faience		decorated yellow fragment	2	13/06/2015	
House Room A	4065	2015-598		stone	marble	fragment of worked marble (?) with flat surface	1	13/06/2015	
House Room A	4065	2015-599	KAO 49	faience		small fragment, light blue	1	14/06/2015	
House Room A	4065	2015-600	KAO 124	stone	limestone	semi-circular, limestone	1	13/06/2015	
House Room A	4065	2015-602		stone	marble	fragment of worked marble (?) with flat surface	1	13/06/2015	
House Room A	4065	2015-603		stone		worked fragment, flat surface	1	13/06/2015	
House Room A	4065	2015-604		stone	marble	fragment of worked marble (?) with flat surface	1	13/06/2015	
House Room A	4065	2015-606		metal	copper alloy	copper alloy fragment	1	13/06/2015	
House Room A	4065	2015-607		metal	coin	copper alloy coin	1	13/06/2015	
House Room A	4065	2015-608		metal	coin	copper alloy coin	1	13/06/2015	
House Room A	4065	2015-610		stone	vessel?	curved shape and possible base, found in the backfill above F4065	1	13/06/2015	
House Room A	4065	2015-611		metal	copper alloy	copper alloy fragments, from the backfill above F4065	11	13/06/2015	
House Room A	4065	2015-612		metal	coin	copper alloy coin	1	14/06/2015	
House Room A	4065	2015-613		metal	coin	copper alloy coin	1	14/06/2015	
House Room A	4065	2015-614		plaster and mortar		worked fragments	2	14/06/2015	
House Room A	4066	2015-615		shell		medium and small fragments	circa 30	17/06/2015	
House Room A	4066	2015-616		pottery		sherds		14/06/2015	
House Room A	4066	2015-617		slag		big, medium and small fragments	170	17/06/2015	8.3 kg

House Room A	4066	2015-618	KAO 141	plaster	painted	medium and small painted fragments	122	19/06/2015	
House Room A	4066	2015-619		bone		medium and small fragments	circa 50	17/06/2015	
House Room A	4066	2015-620		glass		medium and small shards	15	17/06/2015	
House Room A	4066	2015-621		metal	nail	iron nail	1	14/06/2015	
House Room A	4066	2015-622		metal	coin	copper alloy coin	1	14/06/2015	
House Room A	4066	2015-623	KAO 50	faience		small and medium fragments, light yellow	6	17/06/2015	
House Room A	4066	2015-624		metal	coin	copper alloy, half coin	1	14/06/2015	
House Room A	4066	2015-625	KAO 119	stone	marble	worked fragments of marble, possibly part of a slab	6	17/06/2015	
House Room A	4066	2015-626		metal	copper alloy	small copper alloy fragments	3	17/06/2015	
House Room A	4066	2015-627		stone	limestone	worked limestone fragment	1	14/06/2015	
House Room A	4066	2015-628		metal	nail	iron nail	2	15/06/2015	
House Room A	4066	2015-629		metal	nail	iron nail	1	15/06/2015	
House Room A	4066	2015-630		stone	object?	round shape, river? Scraper?	2	17/06/2015	
House Room A	4067	2015-631		glass		base fragment	1	17/06/2015	
House Room A	4067	2015-632		stone	marble	worked fragment of marble, possibly part of slab	1	17/06/2015	
House Room A	4067	2015-633		pottery		sherds		17/06/2015	
House Room A	4067	2015-634		slag		big, medium and small fragments	41	17/06/2015	4.45 kg
House Room A	4067	2015-635		shell		small and medium fragments	circa 15	17/06/2015	
House Room A	4067	2015-636		faience		small and medium fragments, light yellow	5	17/06/2015	
House Room A	4067	2015-637		bone		medium and small fragments	circa 50	17/06/2015	
House Room A	4067	2015-638		metal	copper alloy	copper alloy fragment	1	17/06/2015	
House Room A	4067	2015-639	KAO 142	plaster	painted	medium and small painted fragments	65	19/05/2016	
House Room A	4067	2015-640		stone	object?	egg shape, river? Scraper?	1	17/06/2015	
House Room A	4067	2015-641		glass		small shards	2	17/06/2015	
House Room A	4067	2015-642	KAO 244	metal	iron	iron fragment	1	17/06/2015	
House Room A	4067	2015-643		metal	copper alloy	copper alloy fragments	2	17/06/2015	
House Room A	4067	2015-644		metal	coin	copper alloy coin	1	17/06/2015	
House Room A	4068	2015-645		pottery		sherds		17/06/2015	
House Room A	4068	2015-646	KAO 143	plaster	painted	small painted fragments	14	19/05/2016	
House Room A	4068	2015-647		slag		big and small fragments	4	17/06/2015	400 g
House Room A	4068	2015-648		shell		small fragment	1	17/06/2015	
House Room A	4068	2015-649		bone		small and medium fragments	11	17/06/2015	
Surface Layers	4000 (northern extension of Room E)	2016-001		pottery		sherds		28/05/2016	
Surface Layers	4000 (northern extension)	2016-001		pottery		sherds		30/04/2016	
Northwestern corner	4095	2016-1000		metal	coin	copper alloy coins (from the sieve)	11	09/05/2016	

Northwestern corner	4095	2016-1001		metal	coin	copper alloy coin	1	08/05/2016	
Northwestern corner	4095	2016-1002		metal	coin	copper alloy coin	1	08/05/2016	
Northwestern corner	4095	2016-1003		metal	coin	copper alloy coin	1	08/05/2016	
Northwestern corner	4095	2016-1004		metal	coin	copper alloy coin	1	08/05/2016	
Northwestern corner	4095	2016-1005		metal	coin	copper alloy coin	1	08/05/2016	
Northwestern corner	4095	2016-1006		metal	coin	copper alloy coin	1	08/05/2016	
Northwestern corner	4095	2016-1007		metal	coin	copper alloy coin	1	08/05/2016	
Northwestern corner	4095	2016-1008		metal	coin	copper alloy coin	1	09/05/2016	
Northwestern corner	4095	2016-1009	KAO 265	metal	nail	iron nail fragments	14	09/05/2016	59g
Northwestern corner	4095	2016-1010	KAO 200	metal	copper alloy	copper alloy fragments	6	08/05/2016	1.7g
Northwestern corner	4095	2016-1011		shell		2 bags		09/05/2016	
Northwestern corner	4095	2016-1012	KAO 57	faience		small rim fragment	1	09/05/2016	0.2g
Northwestern corner	4095	2016-1013		metal	coin	copper alloy coin	1	09/05/2016	
Northwestern corner	4095	2016-1014		metal	coin	copper alloy coin	1	09/05/2016	
Northwestern corner	4095	2016-1015		metal	coin	copper alloy coin	1	09/05/2016	
Northwestern corner	4095	2016-1016		metal	coin	copper alloy coin	1	09/05/2016	
Northwestern corner	4095	2016-1017		metal	coin	copper alloy coin	1	09/05/2016	
Northwestern corner	4095	2016-1018	KAO 10	bone	hairpin	worked bone fragment, can be fitted with b1023	1	09/05/2016	0.8g
Northwestern corner	4095	2016-1019		bead	glass	blue glass bead fragments with a red twirly line	2	09/05/2016	1.8g
Northwestern corner	4095	2016-1020		metal	coin	copper alloy coin	1	09/05/2016	
Northwestern corner	4095	2016-1021		metal	coin	copper alloy coin	1	09/05/2016	
Northwestern corner	4095	2016-1022		metal	coin	copper alloy coin	1	09/05/2016	
Northwestern corner	4095	2016-1023	KAO 10	bone	hairpin	worked bone fragment, can be fitted with b1018	1	09/05/2016	0.3g
Amphorae Storage Room E	4092	2016-1024		metal	coin	copper alloy coin	1	09/05/2016	
Amphorae Storage Room D	4087	2016-1025		pottery	lamp	lamp handle fragment	1	09/05/2016	13.7g
Northwestern corner	4095	2016-1026	KAO 291	metal	blade	fragment of iron blade, from axe?	1	09/05/2016	32.2g
Northwestern corner	4095	2016-1027		metal	coin	copper alloy coin	1	09/05/2016	
Amphorae Storage Room E	4092	2016-1028	KAO 198	metal	copper alloy	copper alloy fragment	1	09/05/2016	0.6g
Northwestern corner	4095	2016-1029		slag		various chunks	14	09/05/2016	300 g
Northwestern corner	4096	2016-1030		glass		many small shards	156	21/05/2016	300g
Northwestern corner	4096	2016-1031		bone				21/05/2016	
Northwestern corner	4096	2016-1032		glass		small diagnostic shards	23	21/05/2016	80g
Northwestern corner	4096	2016-1033		pottery		sherds		09/05/2016	
Northwestern corner	4096	2016-1034		metal	coin	copper alloy coin	1	09/05/2016	
Northwestern corner	4096	2016-1035		metal	copper alloy	copper alloy fragment	1	10/05/2016	0.7g
Northwestern corner	4096	2016-1036		metal	coin	copper alloy coin	1	09/05/2016	
Northwestern corner	4096	2016-1037	KAO 266	metal	iron	iron fragments	11	21/05/2016	60g
Northwestern corner	4096	2016-1038		slag		various chunks	5	21/05/2016	102 g
Northwestern corner	4096	2016-1039	KAO 58	faience		small fragment, light blue	1	21/05/2016	0.5g
Northwestern corner	4096	2016-1040	KAO 267	metal	iron	iron fragments	25	21/05/2016	90g
Northwestern corner	4096	2016-1041		metal	coin	copper alloy coin	1	10/05/2016	

Northwestern corner	4096	2016-1042		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1043		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1044		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1045		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1046		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1047		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1048		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1049		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1050		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1051		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1052		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1053		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1054		shell				21/05/2016	
Northwestern corner	4096	2016-1055		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1056		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1057		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1058		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1059		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1060		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1061		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1062		metal	copper alloy	copper alloy fragments	4	14/05/2016	2.4g
Northwestern corner	4096	2016-1064		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1065		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1066		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1067		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1068		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1069		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1070		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1071		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1072		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1073		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1074		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1075		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1076		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1077		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1078		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1079		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1080		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1081		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1082		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1083		metal	coin	copper alloy coin	1	10/05/2016	
Northwestern corner	4096	2016-1084		metal	coin	copper alloy coin (from the sieve)	20	21/05/2016	
Northwestern corner	4096	2016-1085		glass		small shard	1	11/05/2016	1.6g
Wall	4027	2016-1086		metal	coin	copper alloy coin	1	14/05/2016	

Wall	4027	2016-1087		metal	coin	copper alloy coin	1	14/05/2016	
Wall	4027	2016-1088		bone	hairpin	worked bone, 2 fragments	2	14/05/2016	1.14g
Northwestern corner	4097	2016-1089		metal	coin	copper alloy coin	1	19/05/2016	
Amphorae Storage Room C	4090	2016-1090		metal	coin	copper alloy coin (on top of floor)	1	11/05/2016	
Wall	4050	2016-1091		metal	coin	copper alloy coin	1	11/05/2016	
House Room B	4074	2016-1092		glass		many small shards	5	14/05/2016	10.2g
House Room B	4074	2016-1094		metal	iron	iron fragment	3	14/05/2016	29g
Northwestern corner	4095	2016-1096		pottery	vessel?	in 4 pieces	1	11/05/2016	500g
Northwestern corner	4095	2016-1097		metal	copper alloy	copper alloy fragment	1	09/05/2016	
Northwestern corner	4096	2016-1098		metal	coin	copper alloy coin	1	14/05/2016	
House Room B	4073	2016-1099	KAO 294	building material		fired brick with two cat paw prints imprinted	1		
Northwestern corner	4096	2016-1100		metal	coin	copper alloy coin	1	14/05/2016	
Northwestern corner	4097	2016-1101	KAO 11	bone	hairpin	fragment of a hairpin, undecorated	1	14/05/2016	0.37g
Northwestern corner	4097	2016-1102		pottery		sherds		14/05/2016	
Northwestern corner	4096	2016-1103	KAO 12	bone	fitting	fragment of a decorative element	1	14/05/2016	2.3g
Northwestern corner	4097	2016-1104		pottery	lamp	lamp fragments, one with stamp	3	14/05/2016	42.83
Northwestern corner	4096	2016-1105		metal	coin	copper alloy coin	1	14/05/2016	
Northwestern corner	4097	2016-1106	KAO 201	metal	copper alloy	copper alloy fragments (from the sieve)	12	19/05/2016	
Northwestern corner	4097	2016-1107		bone				19/05/2016	
Northwestern corner	4097	2016-1108		glass		small shards	115	19/05/2016	250g
Northwestern corner	4097	2016-1109		shell				19/05/2016	
Northwestern corner	4097	2016-1110		metal	nail	iron nail fragments	24	19/05/2016	50g
Northwestern corner	4097	2016-1111		glass		small diagnostic shards	70	19/05/2016	300g
Northwestern corner	4097	2016-1112	KAO 14	bone	hairpin	fragment of the upper portion of a hairpin	1	14/05/2016	2g
Northwestern corner	4097	2016-1113		metal	coin	copper alloy coins, found on top of each other	2	14/05/2016	
Northwestern corner	4096	2016-1114		metal	coin	copper alloy coin	1	14/05/2016	
Northwestern corner	4096	2016-1115		metal	coin	copper alloy coin	1	14/05/2016	
Northwestern corner	4096	2016-1116		metal	coin	copper alloy coin	1	14/05/2016	
Northwestern corner	4096	2016-1117		metal	coin	copper alloy coin	1	14/05/2016	
Northwestern corner	4096	2016-1118		metal	coin	copper alloy coin	1	14/05/2016	
Northwestern corner	4096	2016-1119		metal	coin	copper alloy coin	1	14/05/2016	
Northwestern corner	4097	2016-1120		metal	coin	copper alloy coin	1	14/05/2016	
Northwestern corner	4096	2016-1121		metal	coin	copper alloy coin	1	14/05/2016	
Northwestern corner	4097	2016-1122		metal	coin	copper alloy coins (from the sieve)	20	19/05/2016	
Northwestern corner	4096	2016-1123		shell				21/05/2016	
Northwestern corner	4096	2016-1124	KAO 21	bone	fitting	worked fragment, fragment of a fitting with three carved segments, flat on back	1	14/05/2016	1.13g
Amphorae Storage Room E	4092	2016-1125		glass		decorated shards	1	15/05/2016	1.12g
Northwestern corner	4097	2016-1126		metal	coin	copper alloy coin	1	17/05/2016	
Northwestern corner	4097	2016-1127		metal	coin	copper alloy coin	1	17/05/2016	

Northwestern corner	4097	2016-1128		metal	coin	copper alloy coin	1	17/05/2016	
Northwestern corner	4096	2016-1130		metal	coin	copper alloy coin	1	16/05/2016	
Northwestern corner	4097	2016-1131		metal	coin	copper alloy coin	1	17/05/2016	
Northwestern corner	4097	2016-1132		metal	coin	copper alloy coin	1	17/05/2016	
Northwestern corner	4096	2016-1133		metal	coin	copper alloy coin	1	16/05/2016	
Northwestern corner	4097	2016-1134	KAO 224	metal	nail	copper alloy and lead nail	1	16/05/2016	20.3g
Northwestern corner	4097	2016-1135	KAO 29	bone	worked bone	curved worked fragment	1	17/05/2016	0.6g
Amphorae Storage Room E	4092	2016-1136		metal	copper alloy	copper alloy fragment	1	21/05/2016	2.3g
Northwestern corner	4097	2016-1137		bead	glass	half a glass bead	1	16/05/2016	0.3g
Northwestern corner	4096	2016-1138		metal	coin	copper alloy coin	1	16/05/2016	
Northwestern corner	4097	2016-1140		glass	bracelet	fragmet of glass bracelet	1	17/05/2016	1.9g
Amphorae Storage Room E	4092	2016-1141		metal	coin	copper alloy coin	1	17/05/2016	
Northwestern corner	4095	2016-1142		metal	coin	copper alloy coin (from the sieve)	1	19/05/2016	
Northwestern corner	4097	2016-1143		glass	bracelet	fragment of glass bracelet	1	19/05/2016	4g
Northwestern corner	4097	2016-1144		metal	coin	copper alloy coin	1	19/05/2016	
Northwestern corner	4097	2016-1145		slag		various chunks	1	19/05/2016	200 g
Northwestern corner	4096	2016-1146		metal	coin	copper alloy coin	1	19/05/2016	
Under House Room B	4075	2016-1148		metal	coin	copper alloy coin	1	19/05/2016	
Northwestern corner	4096	2016-1149	KAO 268	metal	iron	iron fragment	1	21/05/2016	31g
Under House Room B	4075	2016-1151		slag		various chunks	18	19/05/2016	700 g
Under House Room B	4075	2016-1152	KAO 254	metal	nail	2 iron nails and 2 iron fragments	4	21/05/2016	29.3g
House Room B	4075	2016-1153	KAO 103	stone	object?	1 piece is decorated with traces of paint. Scraper?	3	19/05/2016	3g
Under House Room B	4078	2016-1156	KAO 255	metal	nail and fragments	iron fragments, among which one nail	11	21/05/2016	38g
Under House Room B	4078	2016-1157		slag		various chunks	28	19/05/2016	400 g
Under House Room B	4078	2016-1158		shell				19/05/2016	
Northwestern corner	4095	2016-1158		metal	coin	copper alloy coin	1	19/05/2016	
Under House Room B	4078	2016-1159	KAO 153	plaster	painted	small painted fragments	14	21/05/2016	90g
Under House Room B	4078	2016-1160		glass		small shards	7	19/05/2016	
Northwestern corner	4098	2016-1161		pottery		sherds		19/05/2016	
Northwestern corner	4099	2016-1162		pottery		sherds		19/05/2016	
Under House Room B	4078	2016-1163	KAO 104	stone		worked fragment, possibly of slab	1	19/05/2016	700g
Northwestern corner	4099	2016-1164		metal	coin	copper alloy coin	1	19/05/2016	
Northwestern corner	4099	2016-1165		glass		small shards	4	19/05/2016	6g
Under House Room B	4080	2016-1166	KAO 154	plaster	painted	small painted fragments	6	21/05/2016	85g
Northwestern corner	4099	2016-1167	KAO 270	metal	iron	iron fragment	1	19/05/2016	
Amphorae Storage Room F	4094	2016-1168		shell				21/05/2016	
House Room B	4070	2016-1169	KAO 126	stone	object	altar or incense burner - limestone	1	19/05/2016	3000g
Under House Room B	4081	2016-1170		glass		small diagnostic shards	6	19/05/2016	6g
Under House Room B	4078	2016-1171	KAO 120	stone	marble	worked fragment	1	19/05/2016	100g

Under House Room B	4081	2016-1172	KAO 155	plaster	painted	small painted fragments	9	19/05/2016	
Under House Room B	4081	2016-1173		slag		various chunks	3	19/05/2016	200 g
Under House Room B	4081	2016-1173		slag		various chunks	59	21/05/2016	2.8 g
Under House Room B	4081	2016-1174		metal	coin	copper alloy coin	1	21/05/2016	
Under House Room B	4081	2016-1175		metal	coin	copper alloy coin	1	21/05/2016	
Under House Room B	4081	2016-1176	KAO 53	faience		small fragments, light blue	4	21/05/2016	4.1g
Under House Room B	4081	2016-1177	KAO 25	bone	inlay	worked fragment, possibly an inlay for furniture	1	21/05/2016	3g
Under House Room B	4081	2016-1178	KAO 169	metal	ring	copper alloy ring - from within the fill of amphora	1	21/05/2016	0.12g
Under House Room B	4081	2016-1179		metal	copper alloy	copper alloy fragment	1	21/05/2016	
Under House Room B	4075	2016-1180		metal	coin	copper alloy coin	1	19/05/2016	
Under House Room B	4086	2016-1180	KAO 106	stone	granite	fragment of granite grinding stone	1	22/05/2016	840g
Under House Room B	4086	2016-1181		organic		organic material	1	21/05/2016	
Under House Room B	4088	2016-1184	KAO 56	faience		many small fragments, light blue	29	23/05/2016	9.3g
Under House Room B	4088	2016-1185		bone				23/05/2016	
Under House Room B	4088	2016-1185		bone				23/05/2016	
Under House Room B	4088	2016-1186		pottery		sherds		22/05/2016	
Under House Room B	4088	2016-1187		shell				23/05/2016	
Under House Room B	4088	2016-1188		slag		various chunks	34	23/05/2016	800 g
Under House Room B	4088	2016-1189	KAO 159	plaster	painted	small painted fragments	2	24/05/2016	100g
Under House Room B	4088	2016-1189		plaster		worked fragment	1	25/05/2016	99g
Under House Room B	4088	2016-1190		glass		many small shards	11	23/05/2016	6.7g
Under House Room B	4088	2016-1191		glass		small diagnostic shards	5	23/05/2016	5.2g
Under House Room B	4088	2016-1192	KAO 262	metal	nail	iron nail fragment	1	24/05/2016	3g
Under House Room B	4100	2016-1193		pottery		sherds		23/05/2016	
Under House Room B	4100	2016-1194		stone	rhizoconcretion	Petrified Nile plant	2	23/05/2016	40.5g
Under House Room B	4100	2016-1195		shell				23/05/2016	
Under House Room B	4100	2016-1196	KAO 160	plaster	painted	small painted fragments	6	23/05/2016	51.1g
Under House Room B	4100	2016-1197	KAO 66	bead	stone	stone, possibly calcarenite?	1	23/05/2016	1.8g
Under House Room B	4100	2016-1198	KAO 271	metal	nail	iron nail fragments	4	23/05/2016	45.5g
Under House Room B	4081	2016-1199	KAO 258	metal	iron	iron fragments	2	23/05/2016	8.4g
Under House Room B	4100	2016-1200		slag		various chunks	12	23/05/2016	350 g
Under House Room B	4100	2016-1201		bone				24/05/2016	
Under House Room B	4100	2016-1202		glass		small shards	4	24/05/2016	2.2g
Under House Room B	4101	2016-1203		pottery		sherds		24/05/2016	
Under House Room B	4101	2016-1204		shell				25/05/2016	
Under House Room B	4101	2016-1205	KAO 161	plaster	painted	small painted fragments	13	28/05/2016	150g
Under House Room B	4101	2016-1206	KAO 272	metal	nail	iron nail fragments	5	25/05/2016	29g
Under House Room B	4101	2016-1207		metal	coin	copper alloy coin	1	24/05/2016	
Under House Room B	4101	2016-1208		bone				25/05/2016	

Under House Room B	4101	2016-1209	KAO 203	metal	copper alloy	fragment of a curved and elongated copper alloy object	1	24/05/2016	0.9g
	n/a	2016-1210		metal	coin	copper alloy coin, in the backfill in the SE quadrant of the unit	1	24/05/2016	
Under House Room B	4101	2016-1211	KAO 108	stone	limestone	worked fragments	4	25/05/2016	3800g
Under House Room B	4101	2016-1212		bead	glass	small glass bead	1	24/05/2016	0g
Under House Room B	4101	2016-1213	KAO 60	faience		fragment - the glace was removed during cleaning	1	25/05/2016	5.9g
Under House Room B	4101	2016-1214		glass		many small shards	13	25/05/2016	61.9g
Under House Room B	4101	2016-1215	KAO 202	metal	copper alloy	copper alloy fragment	1	25/05/2016	0g
Under House Room B	4101	2016-1216		slag		various chunks	85	25/05/2016	9.45 kg
	n/a	2016-1217		metal	coin	copper alloy coin, from the NE sector of the unit	1	25/05/2016	
	n/a	2016-1218		metal	coin	copper alloy coin, from the NE sector of the unit	1	25/05/2016	
	n/a	2016-1219		glass		rim fragment, from the NE sector of the unit	1	25/05/2016	3.4g
	n/a	2016-1220		metal	nail	iron fragment, from the NE sector of the unit	1	25/05/2016	2.6g
	n/a	2016-1221		shell				25/05/2016	
Street	4110	2016-1223	KAO 273	metal	iron	iron fragment	26	31/05/2016	97g
Street	4110	2016-1223		metal	iron	iron fragments	10	28/05/2016	29.9g
Street	4110	2016-1224		glass		many small shards	81	28/05/2016	100g
Street	4110	2016-1224		glass		shard	1	31/05/2016	
Street	4110	2016-1224		glass		many small shards	146	31/05/2016	150g
Street	4110	2016-1225		bone		3 bags		28/05/2016	
Street	4110	2016-1225		bone				31/05/2016	
Street	4110	2016-1226		metal	coin	copper alloy coin	1	25/05/2016	
Street	4110	2016-1227		shell				28/05/2016	
Street	4110	2016-1227		shell				31/05/2016	
Street	4110	2016-1228		metal	coin	copper alloy coin	1	25/05/2016	
Street	4110	2016-1229		metal	coin	copper alloy coin	1	25/05/2016	
Street	4110	2016-1230		pottery		sherds		25/05/2016	
Street	4110	2016-1231		glass	bracelet	fragment of glass bracelet	1	25/05/2016	3.6g
Street	4110	2016-1232	KAO 204	metal	copper alloy	copper alloy fragments	12	28/05/2016	2.7g
Street	4110	2016-1232		metal	copper alloy	copper alloy fragments	6	31/05/2016	2.8g
Street	4110	2016-1233		metal	coin	copper alloy coin (from the sieve)	11	25/05/2016	
Street	4110	2016-1234		metal	coin	copper alloy coin	1	25/05/2016	
Street	4110	2016-1235		metal	coin	copper alloy coin	1	25/05/2016	
Street	4110	2016-1236	KAO 205	metal	copper alloy	copper alloy fragment	1	25/05/2016	0.3g
Northwestern corner	4097	2016-1237	KAO 175	metal	ring	iron ring, fragmented in two pieces, the upper part has a bezel that might have been decorated	1	25/05/2016	1.3g
Amphorae Storage Room C	4090	2016-1238	KAO 105	stone	basin	limestone basin (on top of floor)	1	25/05/2016	

Under House Room B	4100	2016-1239	KAO 129	building material		mortar with inclusions of coloured pebbles	3	25/05/2016	7.6g
Amphorae Storage Room C	4090	2016-1240		pottery		sherds (on top of floor)		26/05/2016	
Street	4110	2016-1241	KAO 173	metal	ring	copper alloy ring fragment	1	28/05/2016	1.8g
Street	4110	2016-1242		metal	coin	copper alloy coin	1	28/05/2016	
Street	4110	2016-1243		glass		diagnostic small shards	32	28/05/2016	100g
Street	4110	2016-1243		glass		diagnostic shards	1	31/05/2016	4.1g
Street	4110	2016-1243		glass		small diagnostic shards	26	31/05/2016	
Street	4110	2016-1244	KAO 274	metal	iron	iron fragments	5	28/05/2016	12.8g
Street	4110	2016-1245		metal	coin	copper alloy coin	1	28/05/2016	
Street	4110	2016-1246		metal	coin	copper alloy coin	1	28/05/2016	
Street	4110	2016-1247		metal	coin	copper alloy coin	1	28/05/2016	
Amphorae Storage Room C	4084	2016-1248		metal	coin	copper alloy coin	1	28/05/2016	
Amphorae Storage Room C	4084	2016-1249		metal	coin	copper alloy coin	1	28/05/2016	
Amphorae Storage Room C	4084	2016-1250		metal	coin	copper alloy coin	1	28/05/2016	
Amphorae Storage Room C	4084	2016-1251		metal	coin	copper alloy coin	1	28/05/2016	
Amphorae Storage Room C	4090	2016-1252		metal	coin	copper alloy coin (on top of floor)	1	28/05/2016	
Street	4110	2016-1253		metal	coin	copper alloy coin	1	28/05/2016	
Street	4110	2016-1254		metal	coin	copper alloy coin	1	28/05/2016	
Street	4110	2016-1255		metal	coin	copper alloy coin	1	28/05/2016	
Street	4110	2016-1256	KAO 23	bone	ring	fragment of a ring, undecorated	1	28/05/2016	0.4g
Amphorae Storage Room C	4084	2016-1257		slag/tar?			18	28/05/2016	12.2 kg
Street	4110	2016-1258		metal	coin	copper alloy coin	1	28/05/2016	
Street	4110	2016-1259	KAO 206	metal	object?	fragment of copper alloy object, bulbous on one end and pointed on the other	1	31/05/2016	0.9g
Street	4110	2016-1261		slag		various chunks	6	28/05/2016	200 g
Street	4110	2016-1261		slag		various chunks	7	31/05/2016	300 g
Amphorae Storage Room E	4092	2016-1262		metal	coin	copper alloy coin	1	28/05/2016	
Amphorae Storage Room E	4092	2016-1263		metal	coin	copper alloy coin	1	28/05/2016	
Amphorae Storage Room E	4092	2016-1264		shell				31/05/2016	
Street	4112	2016-1265		pottery		sherds		28/05/2016	
Street	4112	2016-1266		bone				31/05/2016	
Street	4110	2016-1268		metal	coin	copper alloy coin	1	29/05/2016	
Street	4110	2016-1269	KAO 17	bone	hairpin	fragment of a hairpin, broken into two pieces, undecorated	1	30/05/2016	1.2g
Street	4110	2016-1270		metal	coin	copper alloy coin	1	30/05/2016	
Street	4110	2016-1271		metal	coin	copper alloy coin	1	30/05/2016	
Street	4110	2016-1272		metal	coin	copper alloy coin	1	30/05/2016	

Street	4110	2016-1273	KAO 18	bone	hairpin	fragment of a hairpin, undecorated	1	30/05/2016	1.3g
Street	4110	2016-1274		metal	coin	copper alloy coin	1	30/05/2016	
Street	4110	2016-1275		metal	coin	copper alloy coin	1	30/05/2016	
Street	4110	2016-1276		metal	coin	copper alloy coin	1	30/05/2016	
Street	4110	2016-1277	KAO 207	metal	copper alloy	copper alloy fragment	1	30/05/2016	1g
Street	4110	2016-1278		metal	coin	copper alloy coin	1	30/05/2016	
Street	4110	2016-1279		metal	coin	copper alloy coin	1	30/05/2016	
Street	4110	2016-1280		metal	coin	copper alloy coin	1	30/05/2016	
Street	4110	2016-1281		glass	bracelet	fragment of glass bracelet	1	31/05/2016	0.6g
Street	4110	2016-1282		metal	coin	copper alloy coin	1	31/05/2016	
Street	4110	2016-1283	KAO 27	bone	inlay	worked fragment, possibly an inlay for furniture. The fragment has decorative vertical stripes on the outer side	1	31/05/2016	5.1g
Street	4110	2016-1284		metal	coin	copper alloy coin	1	31/05/2016	
Street	4110	2016-1285		metal	coin	copper alloy coin	1	31/05/2016	
Street	4110	2016-1286		metal	coin	copper alloy coin	1	31/05/2016	
Street	4110	2016-1287	KAO 208	metal	copper alloy	copper alloy fragment	1	31/05/2016	1.75g
Street	4110	2016-1288		metal	coin	copper alloy coin	1	31/05/2016	
Street	4110	2016-1289		metal	coin	copper alloy coin	1	31/05/2016	
Street	4110	2016-1290		metal	coin	copper alloy coin	1	31/05/2016	
Street	4110	2016-1291		metal	coin	copper alloy coin	1	31/05/2016	
Street	4110	2016-1292		metal	coin	copper alloy coin	1	31/05/2016	
Street	4110	2016-1293	KAO 127	stone	limestone	worked fragment of limestone, possibly from a slab	1	31/05/2016	150g
Street	4110	2016-1294	KAO 30	bone	worked bone	slightly circular worked fragment	1	31/05/2016	1.1g
Amphorae Storage Room E	4092	2016-1295		metal	coin	copper alloy coin	1	31/05/2016	
Northwestern corner	4097	2016-1315	KAO 28	bone	inlay	worked fragment, possibly an inlay for a fitting	1	17/05/2016	
	n/a	2016-651		metal	coin	copper alloy coin, found during clean up	3	23/04/2016	
	n/a	2016-652		glass		glass shards, found during clean up	9	23/04/2016	24.3g
	n/a	2016-653	KAO 190	metal	copper alloy	copper alloy fragment, found during clean up	1	23/04/2016	0.7g
	n/a	2016-655		metal	coin	copper alloy coin, below backfill	1	23/04/2016	
	n/a	2016-656		metal	coin	copper alloy coin, very fragmented, below backfill	1	23/04/2016	
	n/a	2016-657		metal	coin	copper alloy coin, below backfill	1	23/04/2016	
	n/a	2016-658		metal	coin	copper alloy coin, below backfill	1	23/04/2016	
House Room B	4022	2016-660		pottery		sherds		19/04/2016	
House Room B	4022	2016-661		metal	coin	copper alloy coin	1	23/04/2016	
House Room B	4022	2016-662		bone		medium and small fragments	50 circa	23/04/2016	
House Room B	4022	2016-663		slag		fragments	20	23/04/2016	400 g
House Room B	4022	2016-664		shell		various shells and fragments	24	23/04/2016	
House Room B	4022	2016-665		glass		many small shards	25	23/04/2016	42.40g

House Room B	4022	2016-666		metal	coin	copper alloy coin	1	23/04/2016	
House Room B	4022	2016-667		glass		diagnostic glass base	1	23/04/2016	24.5g
House Room B	4022	2016-668		metal	coin	copper alloy coin	1	23/04/2016	
House Room B	4022	2016-669		metal	coin	copper alloy coin	1	23/04/2016	
House Room B	4022	2016-671		metal	coin	copper alloy coin	1	23/04/2016	
House Room B	4022	2016-672		metal	coin	copper alloy coin	1	23/04/2016	
House Room B	4022	2016-673		metal	coin	copper alloy coin	1	23/04/2016	
House Room B	4022	2016-674		glass		diagnostic glass base	1	23/04/2016	4g
House Room B	4022	2016-675		metal	coin	copper alloy coin	1	23/04/2016	
House Room B	4022	2016-676		metal	coin	copper alloy coin	1	23/04/2016	
House Room B	4022	2016-677		metal	coin	copper alloy coin, very fragmented	1	23/04/2016	
House Room B	4022	2016-678		glass		diagnostic glass base	1	23/04/2016	26.75g
House Room B	4022	2016-679		metal	coin	copper alloy coin	1	23/04/2016	
Surface Layers	4013	2016-680	KAO 114	stone	object	fragment of a grinding stone	1	23/04/2016	4.260kg
House Room B	4022	2016-681		metal	coin	copper alloy coin	1	23/04/2016	
House Room B	4022	2016-682		metal	coin	copper alloy coin	1	23/04/2016	
House Room B	4022	2016-683		metal	coin	copper alloy coin	1	23/04/2016	
House Room B	4022	2016-684		metal	coin	copper alloy coin, broken in two	1	23/04/2016	
House Room B	4022	2016-685		metal	coin	copper alloy coin	1	23/04/2016	
House Room B	4022	2016-686		metal	coin	copper alloy coin	1	23/04/2016	
House Room B	4022	2016-687		metal	coin	copper alloy coin	1	23/04/2016	
House Room B	4022	2016-688	KAO 246	metal	nail	fragments of iron nails	3	23/04/2016	14.46g
House Room B	4072	2016-689		glass		diagnostic shards	3	04/05/2016	6.3g
Wall	4061	2016-690		glass		rim shard	1	23/04/2016	8.1g
Wall	4061	2016-691		metal	coin	copper alloy coin	1	23/04/2016	
Wall	4061	2016-692	KAO 247	metal	nail	iron nail fragment	1	23/04/2016	13.9g
House Room B	4022	2016-693		metal	copper alloy	copper alloy fragments	2	23/04/2016	
House Room B	4022	2016-695	KAO 144	plaster	painted	small fragments of painted plaster in different colors	17	23/04/2016	54.5g
House Room B	4069	2016-696		pottery		sherds		21/04/2016	
House Room B	4069	2016-697		glass		various small shards	20	24/04/2016	38.1g
House Room B	4069	2016-698		stone		worked fragments, possibly from a slab	2	23/04/2016	300g
House Room B	4069	2016-699		slag		different chunks	100	24/04/2016	3.55 kg
House Room B	4069	2016-700		shell		small shells and fragments	22	24/04/2016	22.8g
House Room B	4069	2016-701	KAO 51	faience		light blue small fragments	6	23/04/2016	
House Room B	4069	2016-702		stone		small fragments	2	23/04/2016	
House Room B	4069	2016-703		bone		small and medium fragments and a jaw	50	24/04/2016	400g
House Room B	4069	2016-704	KAO 128	building material		large chunk of plastered mortar	1	23/04/2016	900
Wall	4061	2016-705		pottery		sherds found while scraping the wall's surface		21/04/2016	
House Room B	4022	2016-706		metal	coin	copper alloy coin	1	23/04/2016	
House Room B	4022	2016-707		metal	coin	copper alloy coin	1	23/04/2016	
Wall	4050	2016-708		metal	coin	copper alloy coin	1	23/04/2016	

House Room B	4069	2016-709		metal	copper alloy	copper alloy fragment	1	24/04/2016	0.06g
Wall	4050	2016-710		pottery		sherds found while scraping the wall's surface		23/04/2016	
Wall	4050	2016-711		metal	coin	copper alloy coin	1	23/04/2016	
House Room B	4069	2016-712		metal	coin	copper alloy coin	1	23/04/2016	
House Room B	4069	2016-713		glass		base in two pieces	1	24/04/2016	3.4g
House Room B	4070	2016-714		pottery		sherds		23/04/2016	
House Room B	4070	2016-715		bone				03/05/2016	
House Room B	4070	2016-716		slag		various chunks	35	03/05/2016	1.05 kg
House Room B	4069	2016-717	KAO 249	metal	nails and fragment	different nail fragments (4) and a chunk of iron	5	24/04/2016	18.7g
Wall	4061	2016-718		metal	coin	copper alloy coin	1	23/04/2016	
Wall	4061	2016-719		metal	coin	copper alloy coin	1	23/04/2016	
Wall	4050	2016-720	KAO 125	stone	limestone	worked imestone	1	24/04/2016	
House Room B	4070	2016-721		shell				03/05/2016	
House Room B	4070	2016-722		glass		one shard	1	03/05/2016	6.7g
House Room B	4070	2016-723		metal	coin	copper alloy coin (from the sieve)	2	03/05/2016	
House Room B	4070	2016-724	KAO 146	plaster	painted	small painted fragments	13	04/05/2016	30g
House Room B	4069	2016-725		metal	copper alloy	copper alloy fragment	1	24/04/2016	
House Room B	4071	2016-726	KAO 52	faience		small fragments	3	25/04/2016	
House Room B	4071	2016-727		pottery		sherds		24/04/2016	
House Room B	4071	2016-727		pottery		thin walled sherd (1849)	1	26/04/2016	2g
House Room B	4071	2016-728		bone				25/04/2016	
House Room B	4071	2016-729	KAO 147	plaster	painted	small painted fragments	60	25/04/2016	500g
House Room B	4071	2016-730		slag		different chunks	198	25/04/2016	5.4 kg
House Room B	4069	2016-731	KAO 145	plaster	painted	small painted fragments	35	24/04/2016	250g
House Room B	4071	2016-732		shell				25/04/2016	
House Room B	4071	2016-733		glass		many small shards		25/04/2016	
House Room B	4071	2016-734	KAO 191	metal	copper alloy	copper alloy fragments	3	25/04/2016	0.4g
House Room B	4071	2016-735		glass		diagnostic shards	7	25/04/2016	
House Room B	4071	2016-736		metal	ring	copper alloy ring 2 pieces	1	25/04/2016	
House Room B	4071	2016-737	KAO 8	bone	hairpin	fragment of a hairpin. The tip comes to a blunt point and the upper portion is missing.	1	25/04/2016	
House Room B	4072	2016-738		pottery		sherds		25/04/2016	
House Room B	4072	2016-739		glass		many small shards	5	26/04/2016	4.8g
House Room B	4072	2016-740		bone		bone fragments -2 bags		26/04/2016	
House Room B	4072	2016-741	KAO 148	plaster	painted	small painted fragments	5	26/04/2016	
House Room B	4072	2016-741		plaster	painted	small painted fragments	8	04/05/2016	31g
House Room B	4072	2016-742		metal	nail	iron nail	2	26/04/2016	2.7g
House Room B	4072	2016-743		slag		various chunks	190	26/04/2016	7.7 kg
House Room B	4073	2016-744		pottery		sherds		26/04/2016	
House Room B	4073	2016-745		bone		2 bags		27/04/2016	
House Room B	4073	2016-746	KAO 149	plaster	painted	small painted fragments - 2 bags	42	27/04/2016	

House Room B	4073	2016-747		shell		2 bags		27/04/2016	
House Room B	4071	2016-748		pottery	lamp	Loeschke 1, import, base fragment	1	26/04/2016	3.5g
House Room B	4074	2016-749		metal	iron	iron chunks - 2 bags	16	27/04/2016	350g
House Room B	4073	2016-750		slag		various chunks	275	27/04/2016	10.55 kg
House Room B	4073	2016-753		glass		small shards	6	27/04/2016	
Wall	4061	2016-754	KAO 209	metal	copper alloy	fragment of copper alloy object, ring-shaped fragment	1	27/04/2016	
Wall	4061	2016-755		metal	coin	copper alloy coin	1	27/04/2016	
Wall	4061	2016-756		metal	coin	copper alloy coin	1	27/04/2016	
Wall	4061	2016-757		bone		fragments		27/04/2016	
House Room B	4074	2016-758		pottery		sherds		27/09/2016	
House Room B	4074	2016-759		bone		2 bags		27/04/2016	
House Room B	4074	2016-760		shell		2 bags		27/04/2016	
House Room B	4074	2016-761	KAO 194	metal	copper alloy	copper alloy fragment	1	27/04/2016	0.3g
House Room B	4074	2016-762	KAO 253	metal	nail	iron nail fragments	12	14/05/2016	70.3g
House Room B	4074	2016-763		slag		various chunks	73	27/04/2016	3.8 kg
House Room B	4074	2016-764	KAO 150	plaster	painted	painted with traces of gilding	2	14/05/2016	
House Room B	4074	2016-764		plaster	painted	small painted fragments	4	27/04/2016	44.7g
Surface Layers	4000 (northern extension)	2016-765		metal	coin	copper alloy coin	1	27/04/2016	
House Room B	4074	2016-766		shell		one fragment	1	27/04/2016	
Surface Layers	4000 (northern extension)	2016-767		metal	coin	copper alloy coin	1	27/04/2016	
Surface Layers	4000 (northern extension)	2016-768		metal	coin	copper alloy coin, very fragmented	1	27/04/2016	
Under House Room B	4075	2016-770		pottery		sherds		27/04/2016	
Surface Layers	4000 (northern extension)	2016-771		metal	coin	copper alloy coin	1	27/04/2016	
Surface Layers	4000 (northern extension)	2016-772		metal	coin	copper alloy coin	1	27/04/2016	
Surface Layers	4000 (northern extension)	2016-773		metal	coin	copper alloy coin	1	27/04/2016	
Under House Room B	4075	2016-774		glass		small shards - 2 bags	3	27/04/2016	0.9g
Under House Room B	4075	2016-775		glass		rim	1	27/04/2016	0.7g
Under House Room B	4075	2016-776		metal	coin	copper alloy coin (from the sieve)	1	27/04/2016	
Under House Room B	4075	2016-777		shell		2 bags		27/04/2016	
Under House Room B	4075	2016-778		bone		2 bags		27/04/2016	
Under House Room B	4075	2016-779	KAO 151	plaster	painted	small painted fragments	6	27/04/2016	50.4g
Under House Room B	4076	2016-780		pottery		sherds		28/04/2016	
House Room B	4069	2016-781	KAO 69	stone	lamp	perforated fragment, possibly of a lamp	1	30/04/2016	6.5g
House Room B	4074	2016-782	KAO 70	stone	lamp	fragment of a base, possibly of a lamp	1	30/04/2016	14.9g
House Room B	4074	2016-783		pottery	lamp	lamp fragment	1	30/04/2016	5.2g
Surface Layers	4000 (northern extension)	2016-784		metal	coin	copper alloy coin	1	28/04/2016	

Under House Room B	4076	2016-785		slag		various chunks	25	28/04/2016	1.6 kg
Under House Room B	4076	2016-786	KAO 152	plaster	painted	small painted fragments	7	28/04/2016	34g
Under House Room B	4076	2016-787		bone			2	28/04/2016	
Under House Room B	4076	2016-788		shell			1	28/04/2016	
Under House Room B	4078	2016-789		pottery		sherds		28/04/2016	
Under House Room B	4078	2016-790		bone		2 bags	2	28/04/2016	
Surface Layers	4000 (northern extension)	2016-791	KAO 293	slag	vessel?	worked - shaped in a vessel	1	28/04/2016	400 g
House Room B	4070	2016-792		pottery	lamp	lamp fragment	1	30/04/2016	4.6g
Under House Room B	4080	2016-793	KAO 256	metal	nail	iron nail	1	30/04/2016	7.4g
Under House Room B	4080	2016-794		pottery		sherds		30/04/2016	
Under House Room B	4081	2016-795		pottery		sherds		30/04/2016	
Under House Room B	4081	2016-796	KAO 195	metal	copper alloy	copper alloy fragment	1	30/04/2016	
Under House Room B	4081	2016-797		shell		3 bags		30/04/2016	
Amphorae Storage Room C	4084	2016-798		metal	coin	copper alloy coin	1	30/04/2016	
Amphorae Storage Room C	4084	2016-799		metal	coin	copper alloy coin	1	30/04/2016	
Amphorae Storage Room C	4084	2016-800		metal	coin	copper alloy coin	1	30/04/2016	
Under House Room B	4081	2016-801		bone		3 bags		30/04/2016	
Under House Room B	4081	2016-802	KAO 257	metal	nail	iron nails	3	30/04/2016	16g
Under House Room B	4082	2016-803		pottery		sherds		30/04/2016	
Under House Room B	4082	2016-804		bone				30/04/2016	
Under House Room B	4085	2016-805		glass		many small shards	4	01/05/2016	10.5g
Under House Room B	4082	2016-806		shell				30/04/2016	
Under House Room B	4082	2016-807		slag		various chunks	17	30/04/2016	5 kg
Under House Room B	4082	2016-808	KAO 156	plaster	painted	small painted fragments	5	30/04/2016	68.7g
Amphorae Storage Room C	4084	2016-809		pottery		sherds		30/04/2016	
Amphorae Storage Room C	4084	2016-810		metal	ring	copper alloy ring fragment	1	30/04/2016	0.8g
Amphorae Storage Room C	4084	2016-811		metal	coin	copper alloy coins (from the sieve)	26	05/05/2016	
Amphorae Storage Room C	4084	2016-812		metal	coin	copper alloy coin	1	30/04/2016	
Amphorae Storage Room C	4084	2016-813		glass		many small shards	118	05/05/2016	150g
Amphorae Storage Room C	4084	2016-814	KAO 196	metal	copper alloy	copper alloy fragment	1	05/05/2016	0g
Amphorae Storage Room C	4084	2016-815		metal	coin	copper alloy coin	1	30/04/2016	
Amphorae Storage Room C	4084	2016-816		bone				05/05/2016	
Amphorae Storage Room C	4084	2016-817		slag		various chunks	20	05/05/2016	800 g
Amphorae Storage Room C	4084	2016-818		metal	coin	copper alloy coin	1	30/04/2016	
Amphorae Storage Room C	4084	2016-819		metal	coin	copper alloy coin	1	30/04/2016	

Amphorae Storage Room C	4084	2016-820	KAO 13	bone	hairpin	worked fragment, possibly of a hairpin (no surviving decorations)	1	30/04/2016	2.94g
Amphorae Storage Room C	4084	2016-821		metal	coin	copper alloy coin	1	30/04/2016	
Amphorae Storage Room C	4084	2016-822	KAO 170	metal	ring	copper alloy ring	1	30/04/2016	1.2g
Amphorae Storage Room C	4084	2016-823		glass		diagnostic small shards	34	05/05/2016	140g
Under House Room B	4085	2016-824		pottery		sherds		30/04/2016	
Under House Room B	4085	2016-825	KAO 54	faience		small fragments, light blue	4	01/05/2016	3.3g
Under House Room B	4085	2016-826	KAO 157	plaster	painted	small painted fragments	38	04/05/2016	450g
Under House Room B	4085	2016-827		bone		2 bags		01/05/2016	
Under House Room B	4085	2016-828		shell		2 bags		01/05/2016	
Amphorae Storage Room C	4084	2016-829		metal	coin	copper alloy coin	1	30/04/2016	
Amphorae Storage Room C	4084	2016-830		metal	coin	copper alloy coin	1	30/04/2016	
Amphorae Storage Room C	4084	2016-831		metal	coin	copper alloy coin	1	30/04/2016	
Amphorae Storage Room C	4084	2016-832		metal	coin	copper alloy coin	1	30/04/2016	
Amphorae Storage Room C	4084	2016-833		shell				05/05/2016	
Amphorae Storage Room C	4084	2016-834		metal	coin	copper alloy coin	1	01/05/2016	
Under House Room B	4085	2016-835		slag		various chunks	270	03/05/2016	13.45 kg
Amphorae Storage Room C	4084	2016-836		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-837		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-838		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-839	KAO 26	bone	inlay	worked fragment, possibly an inlay for furniture	1	01/05/2016	17g
Amphorae Storage Room C	4084	2016-840	KAO 259	metal	nail	iron nails	3	05/05/2016	42g
Amphorae Storage Room C	4084	2016-841		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-842		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-843		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-844	KAO 260	metal	nail	iron nail fragments	23	05/05/2016	80g
Amphorae Storage Room C	4084	2016-845		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-846		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-847		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-848		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-849		metal	coin	copper alloy coin	1	01/05/2016	

Amphorae Storage Room C	4084	2016-850		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-851		pottery		rim fragment of anthropomorphic vessel	1	01/05/2016	
Amphorae Storage Room C	4084	2016-852		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-853		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-854		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-855		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-856		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-857		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-858		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-859		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-860		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-861		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-862		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-863		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-864		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-865		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-866		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-867		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-868		glass	bracelet	fragment of glass bracelet	1	01/05/2016	5g
Amphorae Storage Room C	4084	2016-869		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-870		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-871	KAO 171	metal	ring	copper alloy ring fragment	1	01/05/2016	0.6g
Amphorae Storage Room C	4084	2016-872		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-873		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-874		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-875		metal	coin	copper alloy coin	1	01/05/2016	
Amphorae Storage Room C	4084	2016-876		metal	coin	copper alloy coin	1	01/05/2016	
Under House Room B	4086	2016-877		pottery		sherds		03/05/2016	
Under House Room B	4086	2016-878		bone		2 bags		03/05/2016	
Under House Room B	4086	2016-879		slag		various chunks	650	03/05/2016	27.3 kg

Under House Room B	4080	2016-880	KAO 55	faience		one fragment	1	03/05/2016	5.9g
Under House Room B	4086	2016-881	KAO 158	plaster	painted	small painted fragments	6	03/05/2016	14.2g
Amphorae Storage Room D	4087	2016-882		pottery		sherds		03/05/2016	
Amphorae Storage Room D	4087	2016-883		glass		diagnostic shards	28	04/05/2016	90g
Amphorae Storage Room D	4087	2016-884		bone				04/05/2016	
Amphorae Storage Room D	4087	2016-885		glass		small shards	36	04/05/2016	32g
Amphorae Storage Room D	4087	2016-886		metal	coin	copper alloy coin	1	03/05/2016	
Amphorae Storage Room D	4087	2016-887	KAO 261	metal	nail	iron nail fragment	4	04/05/2016	14.4g
Amphorae Storage Room D	4087	2016-888		metal	coin	copper alloy coin	1	03/05/2016	
House Room B	4070	2016-889	KAO 250	metal	nail	iron nail	1	03/05/2016	9.1g
Amphorae Storage Room D	4087	2016-890		shell				04/05/2016	
Amphorae Storage Room D	4087	2016-891		slag		various chunks	5	04/05/2016	1 kg
Amphorae Storage Room D	4087	2016-892		metal	coin	copper alloy coin	1	03/05/2016	
Amphorae Storage Room D	4087	2016-892		metal	coin	copper alloy coin	1	03/05/2016	
Amphorae Storage Room D	4087	2016-893	KAO 172	metal	ring	copper alloy ring fragment	1	04/05/2016	
Amphorae Storage Room D	4087	2016-895		metal	coin	copper alloy coin	1	03/05/2016	
Amphorae Storage Room D	4087	2016-896		metal	coin	copper alloy coin	1	03/05/2016	
House Room B	4050 SL001	2016-897	KAO 248	metal	nail	long iron nail in three pieces	1	03/05/2016	50g
House Room B	4072	2016-898	KAO 192	metal	copper alloy	copper alloy fragments	2	04/05/2016	0.4g
House Room B	4072	2016-899		metal	coin	copper alloy coin	1	03/05/2016	
Amphorae Storage Room D	4087	2016-900		metal	coin	copper alloy coin	1	03/05/2016	
House Room B	4072	2016-901		metal	coin	copper alloy coin	1	04/05/2016	
Amphorae Storage Room D	4087	2016-903		metal	copper alloy	copper alloy fragments	1	04/05/2016	0.4g
House Room B	4072	2016-904		shell				04/05/2016	
Amphorae Storage Room C	4090	2016-905		metal	coin	copper alloy coin (on top of floor)	1	04/05/2016	
Amphorae Storage Room C	4090	2016-906		metal	coin	copper alloy coin (on top of floor)	1	04/05/2016	
Amphorae Storage Room C	4090	2016-907		metal	coin	copper alloy coin (on top of floor)	1	04/05/2016	
Amphorae Storage Room C	4090	2016-908		metal	coin	copper alloy coin (on top of floor)	1	04/05/2016	
Amphorae Storage Room C	4090	2016-909		metal	coin	copper alloy coin (on top of floor)	1	04/05/2016	
Amphorae Storage Room C	4084	2016-910		glass		diagnostic shard	1	05/05/2016	
Amphorae Storage Room C	4090	2016-911		metal	coin	copper alloy coin (on top of floor)	1	04/05/2016	
Amphorae Storage Room C	4090	2016-912		metal	coin	copper alloy coin (on top of floor)	1	04/05/2016	

Amphorae Storage Room C	4090	2016-913		metal	coin	copper alloy coin (on top of floor)	1	04/05/2016	
Amphorae Storage Room C	4090	2016-914		metal	coin	copper alloy coin (on top of floor)	1	04/05/2016	
Amphorae Storage Room C	4090	2016-915		metal	coin	copper alloy coin (on top of floor)	1	04/05/2016	
Amphorae Storage Room C	4090	2016-916	KAO 197	metal	copper alloy	copper alloy fragments (on top of floor)	1	04/05/2016	0.12g
Amphorae Storage Room C	4090	2016-917		metal	coin	copper alloy coin (on top of floor)	1	04/05/2016	
Amphorae Storage Room C	4084	2016-918		glass		diagnostic shards	1	04/05/2016	22.7g
Amphorae Storage Room C	4090	2016-918		metal	coin	copper alloy coin (on top of floor)	1	04/05/2016	
Amphorae Storage Room C	4090	2016-919		metal	coin	copper alloy coin (on top of floor)	1	04/05/2016	
Amphorae Storage Room C	4090	2016-920		metal	coin	copper alloy coin (on top of floor)	1	04/05/2016	
Amphorae Storage Room C	4090	2016-921		metal	coin	copper alloy coin (on top of floor)	1	04/05/2016	
Amphorae Storage Room C	4090	2016-922		metal	coin	copper alloy coin (on top of floor)	1	04/05/2016	
Amphorae Storage Room C	4090	2016-923		metal	coin	copper alloy coin (on top of floor)	1	04/05/2016	
Amphorae Storage Room C	4090	2016-924		metal	coin	copper alloy coin (on top of floor)	1	04/05/2016	
Amphorae Storage Room C	4090	2016-925		metal	coin	copper alloy coin (on top of floor)	1	04/05/2016	
Amphorae Storage Room C	4090	2016-926		metal	coin	copper alloy coin (on top of floor)	1	04/05/2016	
Amphorae Storage Room C	4090	2016-927		metal	coin	copper alloy coin (on top of floor)	1	04/05/2016	
Amphorae Storage Room C	4090	2016-928		metal	coin	copper alloy coin (on top of floor)	1	04/05/2016	
Amphorae Storage Room C	4090	2016-929		metal	coin	copper alloy coin (on top of floor)	1	05/05/2016	
Amphorae Storage Room C	4090	2016-930		metal	coin	copper alloy coin (on top of floor)	1	05/05/2016	
Amphorae Storage Room C	4090	2016-931		metal	coin	copper alloy coin (on top of floor)	1	05/05/2016	
Amphorae Storage Room C	4090	2016-932		metal	coin	copper alloy coin (on top of floor)	1	05/05/2016	
House Room B	4072	2016-933		terracotta	figurine	fragment	1	05/05/2016	6.7g
House Room B	4073	2016-934		glass		rim and neck fragments	1	05/05/2016	5.4g
House Room B	4073	2016-935	KAO 193	metal	copper alloy	copper alloy fragment	1	05/05/2016	0g
House Room B	4073	2016-937	KAO 41	faience	statuette	the corner fragment of a statuette depicting a human left foot and a plinth on which it stands	1	05/05/2016	105g
House Room B	4073	2016-938	KAO 290	metal	blade	iron blade, one fragment	1	05/05/2016	1.4g
House Room B	4073	2016-939	KAO 252	metal	nail	iron nail fragment	6	05/05/2016	38g
Amphorae Storage Room E	4092	2016-940		pottery		sherds		07/05/2016	
Amphorae Storage Room E	4092	2016-941		glass		many small shards	57	07/05/2016	60g
Amphorae Storage Room F	4093	2016-942		pottery		sherds		07/05/2016	

Amphorae Storage Room E	4092	2016-943	KAO 263	metal	nail	iron nail fragment	24	07/05/2016	62g
Amphorae Storage Room E	4092	2016-945		bone		3 bags		07/05/2016	
Amphorae Storage Room E	4092	2016-946		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room E	4092	2016-947		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room E	4092	2016-948		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room E	4092	2016-949		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room F	4093	2016-950		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room F	4093	2016-951		bone				07/05/2016	
Amphorae Storage Room F	4093	2016-952		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room F	4093	2016-953		glass		small shards	3	07/05/2016	3g
Amphorae Storage Room E	4092	2016-954		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room E	4092	2016-955		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room E	4092	2016-956		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room F	4093	2016-957		glass		rim	1	07/05/2016	1.8g
Amphorae Storage Room E	4092	2016-958		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room E	4092	2016-959		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room E	4092	2016-960		glass		diagnostic shards	33	07/05/2016	62g
Amphorae Storage Room F	4094	2016-961		pottery		sherds		07/05/2016	
Amphorae Storage Room F	4094	2016-962		bone				08/05/2016	
Amphorae Storage Room E	4092	2016-963		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room E	4092	2016-964		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room E	4092	2016-965		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room F	4094	2016-966		glass		small shards	10	09/05/2016	11g
Amphorae Storage Room F	4093	2016-967		slag		various chunks	3	07/05/2016	500 g
Amphorae Storage Room E	4092	2016-968		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room F	4094	2016-969		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room F	4094	2016-970		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room F	4094	2016-971		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room E	4092	2016-972		metal	coin	copper alloy coin	1	07/05/2016	

Amphorae Storage Room F	4094	2016-972		slag		various chunks	4	08/05/2016	170 g
Amphorae Storage Room F	4094	2016-973	KAO 264	metal	nail	iron nail	1	08/05/2016	5g
Amphorae Storage Room E	4092	2016-975		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room E	4092	2016-976		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room E	4092	2016-977		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room E	4092	2016-978	KAO 64	bead	faience	faience bead, spheroidal, in two pieces	1	07/05/2016	0.2g
Amphorae Storage Room E	4092	2016-979		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room E	4092	2016-980		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room F	4094	2016-981		shell				08/05/2016	
Amphorae Storage Room E	4092	2016-982		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room F	4094	2016-983	KAO 38	faience	figurine	fragment of the right hand of a figurine, faience	1	08/05/2016	0.7g
Amphorae Storage Room F	4094	2016-983		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room F	4094	2016-984		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room F	4094	2016-985		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room E	4092	2016-986		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room F	4094	2016-987		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room F	4094	2016-988		metal	coin	copper alloy coin	1	07/05/2016	
Amphorae Storage Room F	4094	2016-989		metal	coin	copper alloy coin	2	07/05/2016	
Amphorae Storage Room F	4094	2016-990	KAO 199	metal	copper alloy	copper alloy fragments	3	07/05/2016	1.6g
Amphorae Storage Room D	4087	2016-991		pottery		painted sherd	1	08/05/2016	5.8g
Northwestern corner	4095	2016-992		glass		many small shards	121	09/05/2016	100g
Northwestern corner	4095	2016-993		pottery		sherds		08/05/2016	
Northwestern corner	4095	2016-994	KAO 9	bone	hairpin	fragment of upper portion of a hairpin; the head terminates in a sphere that is flat on one side	1	08/05/2016	1.3g
Northwestern corner	4095	2016-995		glass		diagnostic small shards	22	09/05/2016	154.6g
Northwestern corner	4095	2016-996		bone		2 bags		09/05/2016	
Northwestern corner	4095	2016-997		metal	coin	copper alloy coin	1	09/05/2016	
Northwestern corner	4095	2016-999		metal	coin	copper alloy coin	1	08/05/2016	
Surface Layers	4000 (second northern extension)	2017-1296		metal	coin	copper alloy coin	1	19/04/2017	
Surface Layers	4000 (second northern extension)	2017-1297		metal	coin	copper alloy coin	1	19/04/2017	

Surface Layers	4000 (second northern extension)	2017-1298		metal	coin	copper alloy coin	1	19/04/2017	
Surface Layers	4000 (second northern extension)	2017-1299		metal	coin	copper alloy coin	1	20/04/2017	
Surface Layers	4000 (second northern extension)	2017-1300		pottery		sherds		20/04/2017	
Surface Layers	4000 (second northern extension)	2017-1301		metal	coin	copper alloy coin	1	20/04/2017	
Surface Layers	4000 (second northern extension)	2017-1302		metal	coin	copper alloy coin	1	20/04/2017	
Surface Layers	4000 (second northern extension)	2017-1303	KAO 178	metal	bell	copper alloy, perforated at the top for suspension, missing pendulum	1	20/04/2017	
Surface Layers	4115 (second northern extension)	2017-1304		metal	coin	copper alloy coin	1	22/04/2017	
Surface Layers	4115 (second northern extension)	2017-1305		pottery		sherds		22/04/2017	
Surface Layers	4115 (second northern extension)	2017-1306		glass		non-diagnostic shards	few?	22/04/2017	
Amphorae Storage Room E	4092 (second northern extension)	2017-1307		glass		non-diagnostic shards	few?	13/05/2017	
Amphorae Storage Room E	4092 (second northern extension)	2017-1308		Building material		limestone with fired brick remains	1	13/05/2017	36g
Amphorae Storage Room E	4092 (second northern extension)	2017-1310		metal	coin	copper alloy coin	1	22/04/2017	
Amphorae Storage Room E	4092 (second northern extension)	2017-1311		metal	coin	copper alloy coin	1	22/04/2017	
Surface Layers	4115 (second northern extension)	2017-1312		bone			1 bag	22/04/2017	
Surface Layers	4115 (second northern extension)	2017-1313		slag			1 bag	22/04/2017	148 g
Amphorae Storage Room E	4092 (second northern extension)	2017-1314		metal	coin	copper alloy coin	1	22/04/2017	
Amphorae Storage Room E	4092 (second northern extension)	2017-1315		metal	copper alloy	copper alloy fragments	4	13/05/2017	4.14g
Amphorae Storage Room F	4093 (second northern extension)	2017-1316		metal	coin	copper alloy coin	1	23/04/2017	
Amphorae Storage Room F	4093 (second northern extension)	2017-1317		metal	coin	copper alloy coin	1	23/04/2017	
Amphorae Storage Room F	4093 (second northern extension)	2017-1318		metal	coin	copper alloy coin	1	23/04/2017	

Amphorae Storage Room F	4093 (second northern extension)	2017-1319		metal	nail	iron nail	1	23/04/2017	
Amphorae Storage Room F	4094 (second northern extension)	2017-1320		metal	coin	copper alloy coin	1	24/04/2017	
Amphorae Storage Room F	4093 (second northern extension)	2017-1321		shell			1 bag	23/04/2017	
Amphorae Storage Room F	4094 (second northern extension)	2017-1322		metal	coin	copper alloy coin	1	24/04/2017	
Amphorae Storage Room F	4094 (second northern extension)	2017-1323	KAO 179	metal	bell	fragmented bell with suspension loop at the top, and two pairs of parallel lines incised around the body, The pendulum is preserved inside	1	24/04/2017	2.09 g
Amphorae Storage Room F	4093 (second northern extension)	2017-1324		metal	copper alloy	copper alloy fragments	2	23/04/2017	
Amphorae Storage Room F	4094 (second northern extension)	2017-1325		metal	coin	copper alloy coin	1	24/04/2017	
Amphorae Storage Room F	4094 (second northern extension)	2017-1326		metal	coin	copper alloy coin	1	24/04/2017	
Amphorae Storage Room F	4094 (second northern extension)	2017-1327		metal	coin	copper alloy coin	1	24/04/2017	
Amphorae Storage Room F	4094 (second northern extension)	2017-1328		metal	coin	copper alloy coin	1	24/04/2017	
Amphorae Storage Room F	4094 (second northern extension)	2017-1329	KAO 223	metal	nail	copper alloy nail	2	23/04/2017	
Amphorae Storage Room F	4094 (second northern extension)	2017-1330		metal	copper alloy	copper alloy fragments	2	23/04/2017	
Amphorae Storage Room F	4094 (second northern extension)	2017-1331		metal	coin	copper alloy coin	1	23/04/2017	
	n/a	2017-1332		metal	coin	copper alloy coin, found in the backfill	1	23/04/2017	
Amphorae Storage Room F	4094 (second northern extension)	2017-1333		metal	coin	copper alloy coin, not in-situ	2	23/04/2017	
Amphorae Storage Room F	4094 (second northern extension)	2017-1334		metal	coin	copper alloy coin	1	24/04/2017	
Amphorae Storage Room F	4094 (second northern extension)	2017-1335		metal	coin	copper alloy coin	1	24/04/2017	
Amphorae Storage Room F	4094 (second northern extension)	2017-1337		metal	coin	copper alloy coin	1	23/04/2017	
Amphorae Storage Room F	4094 (second northern extension)	2017-1338	KAO 24	metal	coin	copper alloy coin	1	23/04/2017	

Amphorae Storage Room F	4094 (second northern extension)	2017-1339		metal	coin	copper alloy coin	1	23/04/2017	
Amphorae Storage Room F	4094 (second northern extension)	2017-1340		stone		worked stone	1	25/04/2017	27.87 g/78.97g
Amphorae Storage Room F	4094 (second northern extension)	2017-1341	KAO 276	metal	iron	iron fragments	2	07/05/2017	
Surface Layers	4116 (second northern extension)	2017-1342		pottery		sherds		24/04/2017	
Surface Layers	4116 (second northern extension)	2017-1343		metal	coin	copper alloy coin (from the sieve)	1	25/04/2017	
Surface Layers	4116 (second northern extension)	2017-1344		bone			1 bag	25/04/2017	
Surface Layers	4116 (second northern extension)	2017-1345		slag			1 bag	25/04/2017	164.80 g
Surface Layers	4116 (second northern extension)	2017-1346		glass		diagnostichards	2	25/04/2017	
Surface Layers	4116 (second northern extension)	2017-1347		shell			1 bag	25/04/2017	
House Room D	4117	2017-1348		pottery		sherds		25/04/2017	
House Room D	4117	2017-1349		bone			1 bag	26/04/2017	
House Room D	4117	2017-1350	KAO 275	metal	nail	iron nail	1	26/04/2017	
House Room D	4117	2017-1351		shell			4	26/04/2017	
House Room D	4117	2017-1352		glass		diagnostic shards	5	26/04/2017	
House Room D	4117	2017-1353		slag			1 bag	26/04/2017	6.81 g
House Room D	4117	2017-1354		glass		non-diagnostic shards	8	26/04/2017	
House Room D	4117	2017-1355		bone	worked bone		1	25/04/2017	
House Southeastern Courtyard	4129	2017-1355		metal	coin	copper alloy coin	1	17/05/2017	
House Southeastern Courtyard	4119	2017-1356		metal	coin	copper alloy coin (from the sieve)	1	26/04/2017	
House Southeastern Courtyard	4119	2017-1357		pottery		sherds		26/04/2017	
House Southeastern Courtyard	4119	2017-1358		bone	worked bone	worked bone fragments	2	26/04/2017	
House Southeastern Courtyard	4119	2017-1359		shell			1 bag	26/04/2017	
House Southeastern Courtyard	4119	2017-1360		glass		diagnostic shards	2	26/04/2017	
House Southeastern Courtyard	4119	2017-1361		glass		non-diagnostic shards	6	26/04/2017	
Amphorae Storage Room E	4092 (second northern extension)	2017-1362		metal	coin	copper alloy coin	1	26/04/2017	
Amphorae Storage Room E	4092	2017-1363		soil	soil sample	sample from amphorae	1	03/05/2017	
House Southeastern Courtyard	4119	2017-1364	KAO 277	metal	nail	iron nail	1	26/04/2017	

House Southeastern Courtyard	4119	2017-1365		slag			1 bag	26/04/2017	26.73 g
House Southeastern Courtyard	4119	2017-1366		bone			1 bag	26/04/2017	
House Southeastern Courtyard	4119	2017-1367		organic	charcoal	charcoal branch/twig	3	26/04/2017	
House Southeastern Courtyard	4120	2017-1368		pottery		sherds		26/04/2017	
House Southeastern Courtyard	4120	2017-1369	KAO 162	plaster	painted	painted fragments	6	26/04/2017	
House Southeastern Courtyard	4120	2017-1370		slag			1 bag	26/04/2017	90 g
House Southeastern Courtyard	4120	2017-1371		bone			1 bag	26/04/2017	
House Southeastern Courtyard	4120	2017-1372		shell			8	26/04/2017	
House Southeastern Courtyard	4120	2017-1373	KAO 278	metal	iron	iron fragment	1	26/04/2017	
House Southeastern Courtyard	4120	2017-1374		glass		non-diagnostic shards	5	26/04/2017	
House Southeastern Courtyard	4122	2017-1376		soil	soil sample	ashy soil sample	1	26/04/2017	58g
House Southeastern Courtyard	4122	2017-1377	KAO 165	plaster	painted	painted fragments	82	26/04/2017	
House Southeastern Courtyard	4122	2017-1378		slag			1 bag	26/04/2017	38 g
House Southeastern Courtyard	4122	2017-1379		shell			1 bag	26/04/2017	
House Southeastern Courtyard	4122	2017-1380		pottery		sherds		26/04/2017	
House Southeastern Courtyard	4122	2017-1381		glass		non-diagnostic shards	6	26/04/2017	
House Southeastern Courtyard	4122	2017-1382		bone			1 bag	26/04/2017	
House Southeastern Courtyard	4122	2017-1383		metal	nail	iron nail	3	27/04/2017	
House Southeastern Courtyard	4122	2017-1384	KAO 210	metal	copper alloy	copper alloy fragment	1	26/04/2017	
House Southeastern Courtyard	4122	2017-1385		glass		diagnostic shards	1	26/04/2017	
House Southeastern Courtyard	4120	2017-1386		glass		diagnostic shards	2	27/04/2017	
House 'Corridor'	4124	2017-1387		pottery		sherds		27/04/2017	
House 'Corridor'	4124	2017-1388		metal	coin	copper alloy coin	1	27/04/2017	
Amphorae Storage Room F	4094 (second northern extension)	2017-1388		glass		diagnostic shards	11	07/05/2017	
House 'Corridor'	4124	2017-1389		metal	coin	copper alloy coin	1	27/04/2017	
House 'Corridor'	4124	2017-1390		bead	faience	faience bead?	1	27/04/2017	
House 'Corridor'	4124	2017-1391		glass		diagnostic shards	2	27/04/2017	
House 'Corridor'	4124	2017-1392		glass		non-diagnostic shards	7	27/04/2017	
House 'Corridor'	4124	2017-1393		metal	coin	copper alloy coin	1	27/04/2017	
House 'Corridor'	4124	2017-1394		metal	coin	copper alloy coin	1	27/04/2017	
House 'Corridor'	4124	2017-1395		bone			1 bag	27/04/2017	
House 'Corridor'	4124	2017-1396		metal	coin	copper alloy coins (from the sieve)	3	30/04/2017	

House 'Corridor'	4124	2017-1397	KAO 212	metal	copper alloy	copper alloy fragments	3	27/04/2017	
House 'Corridor'	4124	2017-1398		metal	coin	copper alloy coin	1	27/04/2017	
House 'Corridor'	4124	2017-1399		metal	coin	copper alloy coin	1	27/04/2017	
House 'Corridor'	4124	2017-1400		shell			1 bag	27/04/2017	
House 'Corridor'	4124	2017-1401	KAO 213	metal	object	long and flat rectangular copper alloy object	1	27/04/2017	4.36 g
House 'Corridor'	4124	2017-1402		stone	calcite	worked calcite fragment	1	27/04/2017	10.60g
House 'Corridor'	4124	2017-1403		sample		residue from amphora	1	27/04/2017	4.17g
House 'Corridor'	4124	2017-1404		slag			1 bag	27/04/2017	63.63 g
House 'Corridor'	4125	2017-1405		pottery		sherds		27/04/2017	
House 'Corridor'	4125	2017-1406		bone			1 bag	04/05/2017	
House 'Corridor'	4125	2017-1407	KAO 214	metal	copper alloy	copper alloy fragment	1	27/04/2017	
House 'Corridor'	4125	2017-1408		metal	coin	copper alloy coin	1	27/04/2017	
House 'Corridor'	4125	2017-1409		sample		crystalised residue from amphora	1	30/04/2017	
House 'Corridor'	4125	2017-1410		shell			1 bag	04/05/2017	
House 'Corridor'	4125	2017-1411		glass		non-diagnostic shards	2	04/05/2017	
Amphorae Storage Room B	4123	2017-1412		metal	coin	copper alloy coin	1	30/04/2017	
Amphorae Storage Room B	4123	2017-1413		metal	coin	copper alloy coin	1	27/04/2017	
Amphorae Storage Room B	4123	2017-1414		pottery		sherds		29/04/2017	
Amphorae Storage Room B	4123	2017-1415		bone			1 bag	13/05/2017	
Amphorae Storage Room B	4123	2017-1416		glass		diagnostic shards	25	06/05/2017	
Amphorae Storage Room B	4123	2017-1417		glass		non-diagnostic shards	1 bag	13/05/2017	
Amphorae Storage Room B	4123	2017-1418		shell			1 bag	13/04/2017	
Amphorae Storage Room B	4123	2017-1419		pottery	lamp	lamp handle fragment	1	27/04/2017	
Amphorae Storage Room B	4123	2017-1420	KAO 123	stone		calcite fragments	3	13/05/2017	10.39g
Amphorae Storage Room B	4123	2017-1421	KAO 211	metal	copper alloy	copper alloy fragments	6	13/05/2017	n/A
Amphorae Storage Room B	4123	2017-1422	KAO 279	metal	iron	iron fragments	10	13/05/2017	212g
Amphorae Storage Room B	4123	2017-1423		stone	marble	fragment of marble slab	1	13/05/2017	645g
Amphorae Storage Room B	4123	2017-1424		slag			1 bag	13/05/2017	750 g
Amphorae Storage Room B	4123	2017-1425		metal	coin	copper alloy coins (from the sieve)	12	13/05/2017	
Amphorae Storage Room B	4123	2017-1426		metal	coin	copper alloy coin	1	30/04/2017	
Amphorae Storage Room B	4123	2017-1427	KAO 16	bone	hairpin	Fragment of hairpin with an oval tip. The fragment is decorated with incisions forming a plaid pattern ,resembling a pine cone	1	30/04/2017	1.54g
Amphorae Storage Room B	4123	2017-1428		metal	coin	copper alloy coin	1	30/04/2017	

Amphorae Storage Room B	4123	2017-1429		stone	calcite	fragment of worked calcite	1	13/05/2017	46g
Amphorae Storage Room B	4123	2017-1430		metal	coin	copper alloy coin	1	30/04/2017	
Amphorae Storage Room B	4123	2017-1431		stone	limestone	worked limestone fragment	1	13/05/2017	51g
Amphorae Storage Room B	4123	2017-1432		metal	coin	copper alloy coin	1	30/04/2017	
Amphorae Storage Room B	4123	2017-1433		metal	coin	copper alloy coin	1	30/04/2017	
Amphorae Storage Room B	4123	2017-1434	KAO 130	building material		fragment of mortar (material)	1	30/04/2017	N/A
	n/a	2017-1435		metal	copper alloy	object found when cleaning	1	02/05/2017	1.52g
	n/a	2017-1436		glass		diagnostic shard found when cleaning	1	02/05/2017	
	n/a	2017-1437		metal	coin	copper alloy coin, found during clean up	1	02/05/2017	
House 'Corridor'	4125	2017-1438		metal	coin	copper alloy coin	1	03/05/2017	
Amphorae Storage Room F	4094 (second northern extension)	2017-1439		stone	calcite	worked fragment	1	07/05/2017	
	n/a	2017-1440		metal	coin	copper alloy coin, found in room A (house) backfill	1	03/05/2017	
House 'Corridor'	4125	2017-1441		metal	coin	copper alloy coin	1	04/05/2017	
House 'Corridor'	4125	2017-1442		slag			1 bag	04/05/2017	0.23 g
	n/a	2017-1443		metal	coin	copper alloy coin, from the backfill	1	04/05/2017	
Amphorae Storage Room F	4094	2017-1444		metal	coin	copper alloy coin, under amphorae 10	1	04/05/2017	
House Southeastern Courtyard	4128	2017-1445	KAO 15	bone	hairpin	fragment of a hairpin	1	04/05/2017	
House Southeastern Courtyard	4128	2017-1446		metal	coin	copper alloy coin	1	04/05/2017	
House Southeastern Courtyard	4131	2017-1447		metal	coin	copper alloy coin	1	04/05/2017	
House Southeastern Courtyard	4131	2017-1448		glass	bracelet	fragment of glass bracelet	1	04/05/2017	
House Southeastern Courtyard	4131	2017-1449		metal	copper alloy	fragment	1	04/05/2017	
House Southeastern Courtyard	4127	2017-1450	KAO 174	metal	ring	copper alloy ring, two fragments; thicker on the top, undecorated	1	04/05/2017	
House Southeastern Courtyard	4127	2017-1451		metal	coin	copper alloy coin	1	04/05/2017	
House Southeastern Courtyard	4127	2017-1452		metal	coin	copper alloy coin	1	04/05/2017	
House Southeastern Courtyard	4127	2017-1453		metal	coin	copper alloy coin	1	04/05/2017	
Robbers' Trench	4126 SL001	2017-1454		metal	coin	copper alloy coin	1	04/05/2017	
House Southeastern Courtyard	4127	2017-1455		metal	coin	copper alloy coin	1	04/05/2017	
Robbers' Trench	4126 SL001	2017-1456		bone			1 bag	06/05/2017	
Robbers' Trench	4126 SL001	2017-1456		bone			1 bag	10/05/2017	
Robbers' Trench	4126 SL001	2017-1457		glass		diagnostic shards	44	10/05/2017	
Robbers' Trench	4126 SL001	2017-1458		pottery		sherds		04/05/2017	
Robbers' Trench	4126 SL001	2017-1459		glass		non-diagnostic shards	36	10/05/2017	

Robbers' Trench	4126 SL001	2017-1460	KAO 280	metal	nail	iron nails	6	06/05/2017	
Robbers' Trench	4126 SL001	2017-1460		metal	nail	iron nails	3	10/07/2017	
Robbers' Trench	4126 SL001	2017-1461	KAO 215	metal	copper alloy	copper alloy fragments	5	10/05/2017	
Amphorae Storage Room F	4094	2017-1462		soil	soil sample	from amphora no. 19	1 bag	06/05/2017	
Robbers' Trench	4126 SL001	2017-1463		metal	coin	copper alloy coin	1	06/05/2017	
Robbers' Trench	4126 SL001	2017-1464	KAO 216	metal	copper alloy	copper alloy fragment	1	06/05/2017	
Robbers' Trench	4126 SL001	2017-1465		metal	coin	copper alloy coin	1	06/05/2017	
Robbers' Trench	4126 SL001	2017-1466	KAO 217	metal	nail	copper alloy nail	1	06/05/2017	
Robbers' Trench	4126 SL001	2017-1467	KAO 218	metal	copper alloy	copper alloy fragment	1	05/05/2017	
Robbers' Trench	4126 SL001	2017-1468		shell			1 bag	06/05/2017	
Robbers' Trench	4126 SL001	2017-1468		shell			1 bag	10/05/2017	
Robbers' Trench	4126 SL001	2017-1469		glass	bracelet	fragments of glass bracelets	3	06/05/2017	
Robbers' Trench	4126 SL001	2017-1469		glass	bracelet	fragment from the sieve	2	10/05/2017	
Robbers' Trench	4126 SL001	2017-1470		metal	coin	copper alloy coin	1	06/05/2017	
Robbers' Trench	4126 SL001	2017-1471	KAO 110	stone	marble	worked marble fragments	3	06/05/2017	
Robbers' Trench	4126 SL001	2017-1472		metal	coin	copper alloy coin, from the sieve	1	06/05/2017	
Robbers' Trench	4126 SL001	2017-1472		metal	coin	copper alloy coin, from the sieve	3	10/05/2017	
Robbers' Trench	4126 SL001	2017-1473		metal	coin	copper alloy coin	1	06/05/2017	
Robbers' Trench	4126 SL001	2017-1474		slag			1 bag	06/05/2017	153.58 g
Robbers' Trench	4126 SL001	2017-1474		slag			1 bag	10/05/2017	800 g
Robbers' Trench	4126 SL002	2017-1475		pottery		sherds		06/05/2017	
Robbers' Trench	4126 SL002	2017-1476		glass		diagnostic shards	3	13/05/2017	
Robbers' Trench	4126 SL002	2017-1477		glass		non-diagnostic shards	few?	13/05/2017	
Robbers' Trench	4126 SL002	2017-1478	KAO 219	metal	copper alloy	copper alloy fragments	8	13/05/2017	
Robbers' Trench	4126 SL002	2017-1479		bone	hairpin	hairpin with elongated end, flat on top	1	06/05/2017	
Robbers' Trench	4126 SL002	2017-1480		metal	coin	copper alloy coin	1	06/05/2017	
Robbers' Trench	4126 SL002	2017-1481		bone			1 bag	13/05/2017	
Robbers' Trench	4126 SL002	2017-1482	KAO 65	bead	faience	faience?	1	06/05/2017	
Robbers' Trench	4126 SL002	2017-1483	KAO 281	metal	nail	iron nails	4	13/05/2017	
Robbers' Trench	4126 SL002	2017-1484		metal	coin	copper alloy coin	1	06/05/2017	
Robbers' Trench	4126 SL002	2017-1485		metal	coin	copper alloy coin, from the sieve	5	13/05/2017	
Robbers' Trench	4126 SL002	2017-1486		metal	coin	copper alloy coin	1	07/05/2017	
Robbers' Trench	4126 SL002	2017-1487	KAO 132	building material	mortar	worked fragment	1	13/05/2017	68g
Robbers' Trench	4126 SL002	2017-1488		metal	coin	copper alloy coin	1	07/05/2017	
Robbers' Trench	4126 SL002	2017-1489		shell			1 bag	13/05/2017	
Robbers' Trench	4126 SL002	2017-1490		slag			1 bag	13/05/2017	2.64 kg
Robbers' Trench	4126 SL002	2017-1491		glass	bracelet	fragment of glass bracelet	1	07/05/2017	
Robbers' Trench	4126 SL003	2017-1492		pottery		sherds		07/05/2017	
Robbers' Trench	4126 SL003	2017-1493		metal	coin	copper alloy coin	1	07/05/2017	

Robbers' Trench	4126 SL003	2017-1494		bone			1 bag	14/05/2017	
Robbers' Trench	4126 SL003	2017-1495		glass		non-diagnostic shards	few?	14/05/2017	
Robbers' Trench	4126 SL003	2017-1496		glass		diagnostic shards	few?	14/05/2017	
Robbers' Trench	4126 SL003	2017-1497		slag			2 bags	15/05/2017	2.83 kg
Amphorae Storage Room B	4123	2017-1498		metal	coin	copper alloy coin, inside amphora 7	1	13/05/2017	
Amphorae Storage Room B	4123	2017-1499		metal	coin	copper alloy coin, inside amphora 7	1	13/05/2017	
Amphorae Storage Room B	4123	2017-1500		metal	coin	copper alloy coin	1	13/05/2017	
Amphorae Storage Room B	4123	2017-1501		soil	soil sample	associated with amphora 18	1 bag	13/05/2017	
Amphorae Storage Room B	4123	2017-1502		organic		fish? Associated with amphora 20 and 21	1 bag	13/05/2017	
Robbers' Trench	4126 SL003	2017-1503		glass	bracelet	fragments of glass bracelet	3	08/05/2017	
Robbers' Trench	4126 SL003	2017-1504	KAO 121	stone	marble	worked marble fragment, possibly part of a slab	1	10/05/2017	
Robbers' Trench	4126 SL003	2017-1505	KAO 32	bone	worked bone	circular object	1	08/05/2017	
Robbers' Trench	4126 SL003	2017-1506		metal	coin	copper alloy coin	1	08/05/2017	
Robbers' Trench	4126 SL003	2017-1507	KAO 220	metal	copper alloy	copper alloy fragment	1	08/05/2017	
Robbers' Trench	4126 SL003	2017-1508	KAO 282	metal	nail	iron nails	3	14/05/2017	
Robbers' Trench	4126 SL003	2017-1509		shell			1 bag	14/05/2017	
Robbers' Trench	4126 SL003	2017-1510	KAO 112	stone	mortar / grinder?	fragment, material: sandstone	1	08/05/2017	
House Southeastern Courtyard	4127	2017-1511	KAO 287	metal	nail	iron nail	1	14/05/2017	
Amphorae Storage Room B	4123	2017-1512		metal	coin	copper alloy coin	1	10/05/2017	
Amphorae Storage Room B	4123	2017-1513		metal	coin	copper alloy coin, found in amphora 43	1	10/05/2017	
Amphorae Storage Room B	4123	2017-1514		metal	coin	copper alloy coin, found in amphora 44	1	10/05/2017	
Amphorae Storage Room B	4123	2017-1515		metal	coin	copper alloy coin	1	10/05/2017	
Amphorae Storage Room B	4123	2017-1516		metal	coin	copper alloy coin	1	10/05/2017	
East of Robbers' Trench	4136	2017-1517		slag			1 bag	16/05/2017	103 g
Robbers' Trench	4126 SL004	2017-1517		metal	coin	copper alloy coin	1	10/05/2017	
Robbers' Trench	4126 SL004	2017-1518		metal	coin	copper alloy coin	1	10/05/2017	
Robbers' Trench	4126 SL004	2017-1519		pottery		sherds		09/05/2017	
Robbers' Trench	4126 SL004	2017-1520		glass		diagnostic shards	2	13/05/2017	
Robbers' Trench	4126 SL004	2017-1521		glass		non-diagnostic shards	6	13/05/2017	
Robbers' Trench	4126 SL004	2017-1522		glass	bracelet	fragment of glass bracelet	1	10/05/2017	
House Southeastern Courtyard	4133 / 4211	2017-1523		metal	coin	copper alloy coin	1	10/05/2017	
House Southeastern Courtyard	4133 / 4211	2017-1524		metal	coin	copper alloy coin	1	10/05/2017	
House Southeastern Courtyard	4133 / 4211	2017-1525		glass		diagnostic shards	1	14/05/2017	
Robbers' Trench	4126 SL004	2017-1526		metal	coin	copper alloy coin	1	10/05/2017	

Robbers' Trench	4126 SL004	2017-1527	KAO 5	bone	hairpin	head of a hairpin with a carved decorative line	1	10/05/2017	
Robbers' Trench	4126 SL004	2017-1528		slag			1	13/05/2017	47 g
Robbers' Trench	4126 SL004	2017-1529		bone			1 bag	13/05/2017	
Robbers' Trench	4126 SL005	2017-1529		bone			1 bag	10/05/2017	
Robbers' Trench	4126 SL004	2017-1530		shell			3	13/05/2017	
Robbers' Trench	4126 SL005	2017-1531		metal	coin	copper alloy coin	1	10/05/2017	
Robbers' Trench	4126 SL005	2017-1532	KAO 284	metal	iron	iron fragments	1	13/05/2017	0.89g
Robbers' Trench	4126 SL005	2017-1533		metal	coin	copper alloy coin	1	10/05/2017	
Robbers' Trench	4126 SL005	2017-1534		metal	coin	copper alloy coin	1	10/05/2017	
Robbers' Trench	4126 SL005	2017-1535		metal	coin	copper alloy coin	1	09/05/2017	
Robbers' Trench	4126 SL005	2017-1536	KAO 222	metal	copper alloy	copper alloy fragment	1	13/05/2017	4.23g
Robbers' Trench	4126 SL005	2017-1537		pottery		sherds		09/05/2017	
Robbers' Trench	4126 SL005	2017-1538		shell			4	10/05/2017	
Robbers' Trench	4126 SL005	2017-1540		glass		non-diagnostic shards	4	10/05/2017	
Amphorae Storage Room B	4123	2017-1541		metal	coin	copper alloy coin, found in amphora 58	1	10/05/2017	
Robbers' Trench	4126 SL001	2017-1542		metal	coin	copper alloy coin	1	10/05/2017	
Robbers' Trench	4126 SL004	2017-1543	KAO 113	stone	object	Worked object, possibly a polishing stone or a pestle	1	13/05/2017	123g
Amphorae Storage Room B	4123	2017-1544		metal	coin	copper alloy coin, found in amphora 67	1	10/05/2017	
Amphorae Storage Room B	4123	2017-1545		metal	coin	copper alloy coin, found in amphora 69	1	10/05/2017	
Amphorae Storage Room B	4123	2017-1546		metal	coin	copper alloy coin	1	10/05/2017	
Amphorae Storage Room B	4123	2017-1547	KAO 109	stone	object	pestle?	1	10/05/2017	
Robbers' Trench	4126 SL001	2017-1548		metal	coin	copper alloy coin	1	10/05/2017	
Robbers' Trench	4126 SL001	2017-1549		metal	coin	copper alloy coin	1	10/05/2017	
Robbers' Trench	4126 SL001	2017-1550		metal	coin	copper alloy coin	1	10/05/2017	
Robbers' Trench	4126 SL001	2017-1551		metal	coin	copper alloy coin	1	10/05/2017	
Amphorae Storage Room B	4123	2017-1552		metal	coin	copper alloy coin	1	10/05/2017	
Amphorae Storage Room B	4123	2017-1553		metal	coin	copper alloy coin, found in amphora 85	1	10/05/2017	
Robbers' Trench	4126 SL001	2017-1554		metal	coin	copper alloy	1	10/05/2017	
Amphorae Storage Room B	4123	2017-1555		organic	sample	fish scales from amphora 18	1 bag	10/05/2017	
Robbers' Trench	4126 SL001	2017-1556	KAO 131	stone	limestone	worked limestone fragment	1	10/05/2017	
Robbers' Trench	4126 SL001	2017-1557		soil	soil sample	residue sample from pot base	1	10/05/2017	
Robbers' Trench	4126 SL001	2017-1558	KAO 61	faience		fragment	1	10/05/2017	
Robbers' Trench	4126 SL001	2017-1559		metal	coin	copper alloy coin	1	10/05/2017	
Robbers' Trench	4126 SL001	2017-1560	KAO 111	stone	phyllite	fragment of worked stone (phyllite?)	1	10/05/2017	
Amphorae Storage Room B	4123	2017-1561		metal	coin	copper alloy coin	1	10/05/2017	

Robbers' Trench	4126 SL001	2017-1562	KAO 163	plaster	painted	painted fragments	3	13/05/2017	
Amphorae Storage Room B	4123	2017-1563		metal	coin	copper alloy coin, found in amphora 94	1	10/05/2017	
Robbers' Trench	4126 SL005	2017-1564	KAO 22	bone	hairpin	fragment of hairpin with decoration, ivory	1	13/05/2017	
Amphorae Storage Room B	4123	2017-1566		metal	coin	copper alloy coin	1	13/05/2017	
Amphorae Storage Room B	4123	2017-1567	KAO 33	bone	worked bone	2 fragments (1 eroded)	2	03/06/2017	
Amphorae Storage Room E	4092 (second northern extension)	2017-1568	KAO 59	faience		faience fragments	2	13/05/2017	
Robbers' Trench	4126 SL003	2017-1570		metal	coin	copper alloy coin (from the sieve)	2	14/05/2017	
Amphorae Storage Room E	4092 (second northern extension)	2017-1571		metal	coin	copper alloy coin (found while cleaning)	1	13/05/2017	
Amphorae Storage Room E	4092 (second northern extension)	2017-1572		metal	coin	copper alloy coin (found when cleaning)	1	13/05/2017	
Robbers' Trench	4126 SL002	2017-1573	KAO 164	plaster	painted	painted fragments	8	13/05/2017	
Amphorae Storage Room E	4092 (second northern extension)	2017-1574		metal	coin	copper alloy coin	1	13/05/2017	
Amphorae Storage Room E	4092 (second northern extension)	2017-1575		metal	coin	copper alloy coin	1	13/05/2017	
Amphorae Storage Room E	4092 (second northern extension)	2017-1576		metal	coin	copper alloy coin	1	13/05/2017	
Amphorae Storage Room E	4092 (second northern extension)	2017-1577		metal	copper alloy	copper alloy fragments	2	13/05/2017	0,92g
Robbers' Trench	4126 SL003	2017-1579	KAO 62	faience		fragments	5	14/05/2017	
Robbers' Trench	4126 SL003	2017-1580	KAO 166	plaster	painted	painted fragments	7	14/05/2017	
Robbers' Trench	4126 SL003	2017-1581	KAO 283	metal	iron	iron fragments	2	14/05/2017	
Robbers' Trench	4126 SL003	2017-1582	KAO 122	stone	marble	worked marble fragment, possibly part of a slab	1	14/05/2017	
Robbers' Trench	4126 SL003	2017-1583	KAO 221	metal	copper alloy	copper alloy fragment	1	14/05/2017	
Robbers' Trench	4126 SL003	2017-1585		bone		worked bone fragments	2	14/05/2017	
Robbers' Trench	4126 SL003	2017-1586		metal	weight	copper alloy weight	1	14/05/2017	0.043 g
Robbers' Trench	4126 SL006	2017-1587		pottery		sherds		14/05/2017	
Robbers' Trench	4126 SL006	2017-1588		plaster	painted	painted fragments	80	16/05/2017	
Robbers' Trench	4126 SL006	2017-1589		glass		diagnostic shards	3	15/05/2017	
Robbers' Trench	4126 SL006	2017-1590	KAO 63	faience		fragments	5	15/05/2017	
Robbers' Trench	4126 SL006	2017-1591		metal	coin	copper alloy coin	1	14/05/2017	
Robbers' Trench	4126 SL006	2017-1592		bone			1 bag	15/05/2017	
Robbers' Trench	4126 SL006	2017-1594		metal	nail	iron nail fragments	7	15/05/2017	
Robbers' Trench	4126 SL006	2017-1594		glass		non-diagnostic shards	9	15/05/2017	
Robbers' Trench	4126 SL006	2017-1595		slag			1 bag	15/05/2017	1.68 kg
East of Robbers' Trench	4135	2017-1596		pottery		sherds		15/05/2017	

Robbers' Trench	4126 SL006	2017-1597		shell			1 bag	15/05/2017	
East of Robbers' Trench	4135	2017-1598		metal	coin	copper alloy coin, from the sieve	1	15/05/2017	
East of Robbers' Trench	4135	2017-1599		shell			1 bag	15/05/2017	
East of Robbers' Trench	4135	2017-1600		glass		non-diagnostic shards	1 bag	15/05/2017	
East of Robbers' Trench	4135	2017-1601		glass		diagnostic shards	1 bag	15/05/2017	
East of Robbers' Trench	4135	2017-1602		bone			1 bag	15/05/2017	
East of Robbers' Trench	4135	2017-1603	KAO 288	metal	nail	iron nail	1	15/05/2017	
East of Robbers' Trench	4136	2017-1604		pottery		sherds		15/05/2017	
Robbers' Trench	4126 SL006	2017-1605		stone	limestone	worked limestone fragment of slab	1	15/05/2017	3.15kg
East of Robbers' Trench	4136	2017-1606		metal	coin	copper alloy coin	1	15/05/2017	
Robbers' Trench	4126 SL006	2017-1607	KAO 292	metal	blade	fragment of an iron blade, possibly an axe	1	15/05/2017	0,52g
Robbers' Trench	4126 SL006	2017-1608	KAO 36	terracotta		object, looks like a cowry shell?	1	15/05/2017	
East of Robbers' Trench	4136	2017-1609		metal	coin	copper alloy coin	1	15/05/2017	
Robbers' Trench	4126 SL006	2017-1610	KAO 286	metal	object?	iron awl/punch?	1	15/05/2017	
East of Robbers' Trench	4136	2017-1611		metal	coin	copper alloy coin	1	16/05/2017	
East of Robbers' Trench	4136	2017-1612		metal	coin	copper alloy coin	1	16/05/2017	
East of Robbers' Trench	4136	2017-1613		metal	coin	copper alloy coin	1	15/05/2017	
East of Robbers' Trench	4136	2017-1614		bone			1 bag	16/05/2017	
East of Robbers' Trench	4136	2017-1615		glass		non-diagnostic shards	1 bag	15/05/2017	
East of Robbers' Trench	4136	2017-1616		glass		diagnostic shards	1 bag	16/05/2017	
East of Robbers' Trench	4136	2017-1618		metal	nail	iron nails	18	15/05/2017	
East of Robbers' Trench	4136	2017-1619		metal	coin	copper alloy coin	1	15/05/2017	
East of Robbers' Trench	4136	2017-1620	KAO 31	bone	awl	worked bone with pointed end, possible awl	1	15/05/2017	
Amphorae Storage Room E	4092 (second northern extension)	2017-1621	KAO 107	stone	object?	worked fragment, traces of paint	1	15/05/2017	
East of Robbers' Trench	4136	2017-1622		shell			1 bag	16/05/2017	
East of Robbers' Trench	4136	2017-1624		metal	coin	copper alloy coin (from the sieve)	9	16/05/2017	
East of Robbers' Trench	4136	2017-1625		metal	coin	copper alloy coin	1	16/05/2017	
East of Robbers' Trench	4136	2017-1626		metal	coin	copper alloy coin	1	16/05/2017	
East of Robbers' Trench	4136	2017-1627		metal	coin	copper alloy coin	1	16/05/2017	
East of Robbers' Trench	4136	2017-1628		metal	copper alloy	copper alloy fragments	3	16/05/2017	

East of Robbers' Trench	4136	2017-1629		metal	coin	copper alloy coin	1	16/05/2017	
East of Robbers' Trench	4138	2017-1630		metal	coin	copper alloy coin	1	16/05/2017	
East of Robbers' Trench	4136	2017-1631		bone			3	16/05/2017	
East of Robbers' Trench	4138	2017-1632		metal	coin	copper alloy coin, from the sieve	1	16/05/2017	
East of Robbers' Trench	4138	2017-1633		bone			1 bag	16/05/2017	
East of Robbers' Trench	4138	2017-1634		glass		non-diagnostic shards	few	16/05/2017	
East of Robbers' Trench	4138	2017-1635		metal	nail	iron nails	2	16/05/2017	
East of Robbers' Trench	4138	2017-1636		pottery		sherds		16/05/2017	
East of Robbers' Trench	4138	2017-1637		plaster	painted	painted fragments	3	16/05/2017	
East of Robbers' Trench	4138	2017-1638		shell			1 bag	16/05/2017	
East of Robbers' Trench	4138	2017-1639		glass		diagnostic shards	1	16/05/2017	
East of Robbers' Trench	4138	2017-1640		slag			1 piece	16/05/2017	0.4 g
Amphorae Storage Room B	4123	2017-1642		metal	coin	copper alloy coin, found inside amphora 19 at the lab while cleaning	1	30/05/2017	
Amphorae Storage Room B	4123	2017-1643		metal	coin	copper alloy coin, found inside amphora 19 at the lab while cleaning	1	30/05/2017	
Amphorae Storage Room E	4092 (second northern extension)	2017-940		pottery		sherds		22/04/2017	
Amphorae Storage Room E	4092 (second northern extension)	2017-941		glass		diagnostic shards	few?	13/05/2017	
Amphorae Storage Room F	4093 (second northern extension)	2017-942		pottery		sherds		23/04/2017	
Amphorae Storage Room E	4092 (second northern extension)	2017-943		metal	nail	iron nail fragments	7	13/05/2017	19,49g
Amphorae Storage Room E	4092 (second northern extension)	2017-944		slag			1 bag	13/05/2017	125 g
Amphorae Storage Room E	4092 (second northern extension)	2017-945		bone			1 bag	13/05/2017	
Amphorae Storage Room F	4093 (second northern extension)	2017-953		glass		non-diagnostic shards	8	23/04/2017	
Amphorae Storage Room F	4093 (second northern extension)	2017-957		glass		diagnostic shards	2	23/04/2017	
Amphorae Storage Room F	4093 (second northern extension)	2017-957		bone			1 bag	23/04/2017	
Amphorae Storage Room F	4094 (second northern extension)	2017-957		bone			1 bag	07/05/2017	

Amphorae Storage Room F	4094 (second northern extension)	2017-961		pottery		sherds		23/04/2017	
Amphorae Storage Room F	4094 (second northern extension)	2017-966		glass		non-diagnostic shards	33	07/05/2017	
Amphorae Storage Room F	4093 (second northern extension)	2017-967		slag			1 bag	23/04/2017	175.25 g
Amphorae Storage Room F	4094 (second northern extension)	2017-972		slag			1 bag	07/05/2017	1.68 kg
Amphorae Storage Room F	4094 (second northern extension)	2017-973		metal	nail	iron nails	6	07/05/2017	
Amphorae Storage Room F	4094 (second northern extension)	2017-981		shell			1 bag	07/05/2017	
	n/a	2018-1645		stone	limestone	fragment of limestone slab from the backfill	1	16/04/2018	2.44 kg
	n/a	2018-1646		glass		diagnostic glass from the backfill	4	16/04/2018	
	n/a	2018-1647		metal	coin	copper alloy coin, from the backfill	1	16/04/2018	
	n/a	2018-1648		metal	coin	copper alloy coin, from the backfill	2	16/04/2018	
Third Building	4144	2018-1649		pottery		sherds		17/04/2018	
Third Building	4144	2018-1650		glass		diagnostic shards	24	17/04/2018	
Third Building	4144	2018-1651		bone				17/04/2018	
Third Building	4144	2018-1652		building material	fired brick	overbaked fragment of fired brick	1	17/04/2018	490 gr
Third Building	4144	2018-1653		metal	coin	copper alloy coins (from the sieve)	3	17/04/2018	
Third Building	4144	2018-1654		metal	coin	copper alloy coin	1	17/04/2018	
Third Building	4144	2018-1655		glass		non-diagnostic shards	34	17/04/2018	
Third Building	4144	2018-1656		metal	copper alloy	copper alloy fragments	3	17/04/2018	
Third Building	4144	2018-1657		metal	nail	iron nail	1	17/04/2018	7,63 gr
Third Building	4144	2018-1658		organic		charred twigs	4	17/04/2018	
Third Building	4145	2018-1659		bone				18/04/2018	
Third Building	4145	2018-1660		glass		diagnostic shards	7	18/04/2018	
Third Building	4145	2018-1661		pottery		sherds		17/04/2018	
Third Building	4145	2018-1662		glass		non-diagnostic shards	15	18/04/2018	
Third Building	4145	2018-1663		slag			1	18/04/2018	700 g
Third Building	4145	2018-1664		metal	coin	copper alloy coin (from the sieve)	1	18/04/2018	
Third Building	4145	2018-1665		pottery	lamp	lamp fragment	1	18/04/2018	
Third Building	4145	2018-1666		metal	nail	iron nail	2	18/04/2018	8,17 gr - 2,76 gr
Over Third Building	4146	2018-1667		glass		diagnostic shards	9	18/04/2018	
Over Third Building	4146	2018-1668		glass		non-diagnostic sherds	13	18/04/2018	
Over Third Building	4146	2018-1669		bone				18/04/2018	
Over Third Building	4146	2018-1670		pottery		sherds		17/04/2018	
Over Third Building	4146	2018-1671		metal	coin	copper alloy coin, from the sieve	1	18/04/2018	
Over Third Building	4146	2018-1672		slag			1	18/04/2018	0.55 g
Over Third Building	4146	2018-1673		organic		charred wood		18/04/2018	
Over Third Building	4148	2018-1674		metal	coin	copper alloy coin	1	18/04/2018	

Over Third Building	4146	2018-1675		shell				18/04/2018	
Over Third Building	4148	2018-1676		glass		non-diagnostic shards	15	18/04/2018	
Over Third Building	4148	2018-1677		metal	copper alloy	copper alloy fragment	1	18/04/2018	
Over Third Building	4148	2018-1678		glass	ring	complete (from the sieve)	1	18/04/2018	2,49 gr
Over Third Building	4149	2018-1679		metal	coin	copper alloy coin	1	18/04/2018	
Over Third Building	4148	2018-1680		bone				18/04/2018	
Over Third Building	4148	2018-1681		glass	bracelet	fragment of glass bracelet (from the sieve)	1	18/04/2018	2,57 gr
Over Third Building	4148	2018-1682		glass		diagnostic shards	3	18/04/2018	
Over Third Building	4148	2018-1683		pottery		sherds		18/04/2018	
Over Third Building	4149	2018-1684		bone				18/04/2018	
Over Third Building	4149	2018-1685		glass		non-diagnostic shards	14	18/04/2018	
Over Third Building	4149	2018-1686		glass		diagnostic shards	2	18/04/2018	
Over Third Building	4149	2018-1687		pottery		sherds		18/04/2018	
Area between House and Third Building	4150	2018-1688		pottery		sherds		18/04/2018	
Area between House and Third Building	4150	2018-1689		glass		non-diagnostic shards	5	18/04/2018	
Area between House and Third Building	4150	2018-1690		bone				18/04/2018	
Area between House and Third Building	4151	2018-1691		pottery		sherds		19/04/2018	
Area between House and Third Building	4151	2018-1692		bone				19/04/2018	
Area between House and Third Building	4151	2018-1693		glass		non-diagnostic shards	8	19/04/2018	
Area between House and Third Building	4151	2018-1694		shell				19/04/2018	
Area between House and Third Building	4151	2018-1695		bead	faience	faience bead, not glazed (from the sieve)	1	19/04/2018	1,39 gr
Area between House and Third Building	4151	2018-1696		glass		diagnostic shards	7	19/04/2018	
Area between House and Third Building	4152	2018-1697		metal	coin	copper alloy coin	1	19/04/2018	
Area between House and Third Building	4152	2018-1698		pottery		sherds		19/04/2018	
Area between House and Third Building	4152	2018-1699		bone				19/04/2018	
Area between House and Third Building	4152	2018-1700		shell				19/04/2018	
Area between House and Third Building	4153	2018-1701		soil	soil sample			19/04/2018	
Area between House and Third Building	4153	2018-1702		pottery		sherds		19/04/2018	
Area between House and	4154	2018-1703		pottery		sherds		19/04/2018	

Third Building									
Area between House and Third Building	4154	2018-1704		bone				19/04/2018	
Area between House and Third Building	4154	2018-1705		shell				19/04/2018	
Area between House and Third Building	4154	2018-1706		glass		diagnostic shards	1	19/04/2018	
Over Glass Kilns	4156	2018-1707		glass	bracelet	fragment of bracelet	1	21/04/2018	4,09 gr
Over Glass Kilns	4156	2018-1708		metal	coin	copper alloy coin	1	21/04/2018	
Over Glass Kilns	4156	2018-1709		glass		diagnostic shards	9	21/04/2018	
Over Glass Kilns	4156	2018-1710		pottery		sherds		21/04/2018	
Over Glass Kilns	4156	2018-1711		bone				21/04/2018	
Over Glass Kilns	4156	2018-1712		shell				21/04/2018	
Over Glass Kilns	4156	2018-1713		glass		non-diagnostic shards	24	21/04/2018	
Over Glass Kilns	4156	2018-1714		metal	nail	iron nail	1	21/04/2018	4,09 gr
Over Glass Kilns	4156	2018-1715		metal	coin	copper alloy coin (from the sieve)	6	21/04/2018	
Over Glass Kilns	4156	2018-1716		slag				21/04/2018	500 g
Sebakheen Pit?	4157	2018-1717		pottery		sherds		21/04/2018	
Sebakheen Pit?	4157	2018-1718		glass		non-diagnostic shards	few?	24/04/2018	
Sebakheen Pit?	4157	2018-1719		bone			few?	24/04/2018	
Sebakheen Pit?	4157	2018-1720		shell				24/04/2018	
Sebakheen Pit?	4157	2018-1721		metal	nail	iron nail	2	24/04/2018	9,09 gr - 2,99 gr
Sebakheen Pit?	4157	2018-1722		slag		vitrified glass		21/04/2018	4.76 kg
Sebakheen Pit?	4157	2018-1723		pottery	lamp	lamp fragment	1	21/04/2018	
Sebakheen Pit?	4157	2018-1724		plaster	painted	painted fragments		21/04/2018	
Sebakheen Pit?	4157	2018-1725		faience		faience - fragment of rim	1	21/04/2018	
Sebakheen Pit?	4157	2018-1726		glass		diagnostic shards	few?	24/04/2018	
Sebakheen Pit?	4157	2018-1727		pottery	lamp	lamp fragment	1	22/04/2018	
Sebakheen Pit?	4157	2018-1728		stone	limestone	worked stone - limestone	2	24/04/2018	
Sebakheen Pit?	4157	2018-1730		glass		glass drop	1	22/04/2018	1,11 gr
Sebakheen Pit?	4157	2018-1731		glass	bracelet	fragment of glass bracelet	1	22/04/2018	3,38 gr
Third Building	4147	2018-1732		pottery		sherds		23/04/2018	
Third Building	4147	2018-1733		glass	bracelet	fragment of glass bracelet	1	23/04/2018	6,17 gr
Third Building	4147	2018-1734		bone		with butcher marks		23/04/2018	
Third Building	4147	2018-1735		glass		non-diagnostic shards	few?	23/04/2018	
Third Building	4147	2018-1736		slag				23/04/2018	35.62 g
Third Building	4147	2018-1737		glass		diagnostic shards	few?	23/04/2018	
Third Building	4147	2018-1738		faience		fragments	few	23/04/2018	
Third Building	4147	2018-1739		metal	coin	copper alloy coin (from the sieve)	1	23/04/2018	
Third Building	4158	2018-1740		pottery		sherds		23/04/2018	
Third Building	4158	2018-1741		slag				23/04/2018	175.83 g
Third Building	4158	2018-1742		bone				23/04/2018	
Third Building	4158	2018-1743		metal	coin	copper alloy coin	1	23/04/2018	

	n/a	2018-1744		metal	coin	copper alloy coin (from sieve spoil heap)	1	23/04/2018	
Third Building	4160	2018-1745		pottery		sherds		24/04/2018	
Third Building	4160	2018-1746		bone				24/04/2018	
Third Building	4160	2018-1747		shell				24/04/2018	
Third Building	4160	2018-1748		metal	coin	copper alloy coin (from the sieve)	1	24/04/2018	
Third Building	4160	2018-1749		slag				24/04/2018	117 g
Third Building	4160	2018-1750		glass		non-diagnostic shards	1	24/04/2018	
Sebakheen Pit?	4159	2018-1751		bone		worked bone	1	25/04/2018	
Sebakheen Pit?	4159	2018-1752		bone		burnt bone	1	25/04/2018	
Third Building	4160	2018-1753		glass	bracelet	fragment of glass bracelet	1	24/04/2018	2,08 gr
Third Building	4160	2018-1754		glass		diagnostic shards	3	24/04/2018	
Sebakheen Pit?	4159	2018-1755		glass		diagnostic shard	1	25/04/2018	
Third Building	4162	2018-1756		pottery		sherds		24/04/2018	
Third Building	4162	2018-1757		bone				24/04/2018	
Sebakheen Pit?	4159	2018-1758		pottery		sherds		24/04/2018	
Sebakheen Pit?	4159	2018-1759		plaster	painted	painted fragments		25/04/2018	
Sebakheen Pit?	4159	2018-1760		stone		worked stone	1	25/04/2018	
Sebakheen Pit?	4159	2018-1761		stone		stone tool?	1	25/04/2018	
Third Building	4163	2018-1762		metal	coin	copper alloy coin	1	25/04/2018	
Sebakheen Pit?	4163	2018-1763		metal	coin	copper alloy coin	1	25/04/2018	
Third Building	4164	2018-1764		pottery		sherds		25/04/2018	
Third Building	4164	2018-1765		glass	bracelet	fragment of glass bracelet from the sieve	1	25/04/2018	1,12 gr
Third Building	4164	2018-1766		bone				25/04/2018	
Third Building	4164	2018-1767		slag				25/04/2018	802.45 g
Third Building	4164	2018-1768		glass		diagnostic shards	3	25/04/2018	
Third Building	4164	2018-1769		glass		non-diagnostic shards	1	25/04/2018	
Third Building	4164	2018-1770		shell				25/04/2018	
Sebakheen Pit?	4163	2018-1771		plaster	painted	painted fragments		25/04/2018	
Third Building	4165	2018-1772		pottery		sherds		25/04/2018	
Sebakheen Pit?	4163	2018-1773		slag				26/04/2018	500 g
Sebakheen Pit?	4163	2018-1774		pottery		sherds		25/04/2018	
Sebakheen Pit?	4163	2018-1775		metal	copper alloy	copper alloy fragment	1	25/04/2018	
Sebakheen Pit?	4163	2018-1776		glass		non-diagnostic shards	2	26/04/2018	
Sebakheen Pit?	4163	2018-1777		faience		fragments of faience	6	26/04/2018	
Third Building	4144	2018-1778		metal	coin	copper alloy coin (from the sieve)	3	26/04/2018	
Third Building	4144	2018-1779		bone	hairpin	worked bone (possible pine cone hairpin head)	1	26/04/2018	
Third Building	4167	2018-1781		bone				26/04/2018	
Third Building	4168	2018-1782		pottery		sherds		26/04/2018	
Third Building	4160	2018-1783		metal	coin	copper alloy coin	1	28/04/2018	
Sebakheen Pit?	4171	2018-1784		metal	coin	copper alloy coin	1	28/04/2018	
Sebakheen Pit?	4171	2018-1785		pottery		sherds		28/04/2018	
Sebakheen Pit?	4171	2018-1786		faience		fragment of faience	1	28/04/2018	

Sebakheen Pit?	4171	2018-1787		bone				28/04/2018	
Sebakheen Pit?	4171	2018-1788		metal	nail	iron nail	1	28/04/2018	5,01 gr
Sebakheen Pit?	4171	2018-1789		slag		iron slag		28/04/2018	135.31 g
Sebakheen Pit?	4171	2018-1790		slag		vitrified glass		28/04/2018	80.90 g
Sebakheen Pit?	4171	2018-1791		stone	limestone	worked stone - limestone with hole and the channel below		28/04/2018	
Third Building	4147	2018-1792		metal	nail	iron nail	1	28/04/2018	12,02 gr
Third Building	4147	2018-1793		slag		iron slag	1	01/05/2018	55.15 g
Third Building	4158	2018-1794		organic		charred twig		01/05/2018	
Third Building	4158	2018-1795		glass		diagnostic shards	3	01/05/2018	
Third Building	4158	2018-1796		glass		non-diagnostic shards	1	01/05/2018	
Third Building	4160	2018-1797		bone	hairpin	worked bone, possibbile the head of a hairpin	1	01/05/2018	
Third Building	4172	2018-1798		soil	soil sample			01/05/2018	
Third Building	4172	2018-1799		pottery		sherds		01/05/2018	
Third Building	4161	2018-1800		metal	coin	copper alloy coin	1	02/05/2018	
Third Building	4165	2018-1801		bone				02/05/2018	
Third Building	4165	2018-1802		glass		diagnostic shards	1	02/05/2018	
Third Building	4165	2018-1803		slag				02/05/2018	13.5 g
Third Building	4161	2018-1804		pottery		sherds		02/05/2018	
Third Building	4161	2018-1805		glass		diagnostic shards	3	02/05/2018	
Third Building	4174	2018-1806		metal	coin	copper alloy coin	1	02/05/2018	
Third Building	4161	2018-1807		bone				02/05/2018	
Third Building	4161	2018-1808		glass		non-diagnostic shards	2	02/05/2018	
Third Building	4161	2018-1809		slag				02/05/2018	40 g
Third Building	4174	2018-1810		pottery		sherds		02/05/2018	
Third Building	4174	2018-1811		bone				02/05/2018	
Third Building	4174	2018-1812		glass		diagnostic shards	1	02/05/2018	
Third Building	4175	2018-1813		organic	soil samples	animal dung		02/05/2018	
Third Building	4174	2018-1814		slag				02/05/2018	32.28 g
Third Building	4175	2018-1815		pottery		sherds		02/05/2018	
Third Building	4175	2018-1816		glass		non-diagnostic shards	1	02/05/2018	
Third Building	4175	2018-1817		stone	marble	fragment of marble slab	1	02/05/2018	
Area between House and Third Building	4151	2018-1818		glass	bracelet	fragment of glass bracelet	1	02/05/2018	1,91 gr
Third Building	4175	2018-1819		glass	bracelet	fragment of glass bracelet	1	03/05/2018	3,72 gr
House Southeastern Courtyard	4129	2018-1820		metal	coin	copper alloy coin (from the sieve)	1	03/05/2018	
House Southeastern Courtyard	4129	2018-1821		glass		diagnostic shards	8	03/05/2018	
House Southeastern Courtyard	4129	2018-1822		glass		non-diagnostic shards	14	03/05/2018	
House Southeastern Courtyard	4129	2018-1823		bone				03/05/2018	
House Southeastern Courtyard	4129	2018-1824		bone	hairpin	worked bone, possible hairpin, from the sieve	1	03/05/2018	
House Southeastern Courtyard	4129	2018-1825		metal	nail	iron nail	1	03/05/2018	1,72 gr

House Southeastern Courtyard	4129	2018-1826		shell				03/05/2018	
House Southeastern Courtyard	4129	2018-1827		bone	hairpin	worked bone from the sieve, possible hairpin	1	03/05/2018	
House Southeastern Courtyard	4129	2018-1828		bone	hairpin	worked bone from the sieve, possible hairpin	1	03/05/2018	
House Southeastern Courtyard	4129	2018-1829		slag				03/05/2018	49.49 g
House Southeastern Courtyard	4129	2018-1830		pottery		sherds		03/05/2018	
House Southeastern Courtyard	4129	2018-1831		bone	hairpin	worked bone, possible hairpin		03/05/2018	
Third Building	4177	2018-1832		bone				03/05/2018	
Third Building	4177	2018-1833		stone		worked stone - red quarzite?	1	03/05/2018	
Third Building	4177	2018-1834		pottery		sherds		03/05/2018	
House Southeastern Courtyard	4178	2018-1835		metal	ring bezel	copper alloy ring bezel from the sieve)	1	03/05/2018	
House Southeastern Courtyard	4178	2018-1836		pottery		sherds		03/05/2018	
House Southeastern Courtyard	4178	2018-1837		slag				03/05/2018	85.36 g
House Southeastern Courtyard	4178	2018-1838		shell				03/05/2018	
House Southeastern Courtyard	4178	2018-1839		bone				03/05/2018	
House Southeastern Courtyard	4178	2018-1840		glass		diagnostic shards	1	03/05/2018	
House Southeastern Courtyard	4178	2018-1841		glass		non-diagnostic shards	18	03/05/2018	
House Southeastern Courtyard	4178	2018-1842		glass	bracelet	fragment of glass bracelet	1	03/05/2018	1,05 gr
Third Building	4177	2018-1843		glass		diagnostic shards	1	03/05/2018	
House Southeastern Courtyard	4129	2018-1844		bead	glass	blue bead (from the sieve)	1	03/05/2018	0,33 gr
House Southeastern Courtyard	4129	2018-1845		glass	bracelet	fragment of glass bracelet - from the sieve	1	03/05/2018	0,70 gr
House Southeastern Courtyard	4178	2018-1846		metal	nail	iron nail	1	03/05/2018	10,59 gr
House Southeastern Courtyard	4129	2018-1847		metal	ring	iron tool ring - from the sieve	1	03/05/2018	5,92 gr
House Southeastern Courtyard	4129	2018-1848		metal	nail	iron nail - from the sieve	1	03/05/2018	25,72 gr
House Southeastern Courtyard	4129	2018-1849		bead	glass	fragment of glass bead - from the sieve	1	03/05/2018	0,64 gr
Third Building	4177	2018-1850		bone	worked bone	possible worked bone	1	03/05/2018	
House Southeastern Courtyard	4127	2018-1851		metal	coin	copper alloy coin	1	05/05/2018	
House Southeastern Courtyard	4127	2018-1852		bone			1	05/05/2018	
House Southeastern Courtyard	4127	2018-1853		pottery		sherds		05/05/2018	
House Southeastern Courtyard	4127	2018-1854		slag		vitrified slag		05/05/2018	3.70 g
House Southeastern Courtyard	4127	2018-1855		metal	coin	copper alloy coin	1	05/05/2018	
House Southeastern Courtyard	4127	2018-1856		bead	glass	glass bead from the sieve	1	05/05/2018	

House Southeastern Courtyard	4127	2018-1857		metal	coin	copper alloy coin (from the sieve)	1	05/05/2018	
House Southeastern Courtyard	4190	2018-1858		glass		non-diagnostic shards	16	07/05/2018	
Third Building	4173	2018-1859		pottery		sherds		05/05/2018	
House Southeastern Courtyard	4179	2018-1860		glass		diagnostic shards	few?	06/05/2018	
House Southeastern Courtyard	4127	2018-1861		glass		diagnostic shards	3	05/05/2018	
Third Building	4173	2018-1862		metal	coin	copper alloy coin	1	05/05/2018	
House Southeastern Courtyard	4127	2018-1863		glass	pendant	fragment of glass pendant	1	05/05/2018	
Third Building	4173	2018-1864		metal	copper alloy	copper alloy fragment	1	05/05/2018	
Third Building	4173	2018-1865		glass		non-diagnostic shards	2	05/05/2018	
Third Building	4173	2018-1866		bone				05/05/2018	
Third Building	4173	2018-1867		organic		organic remains (hay?)		05/05/2018	
House Southeastern Courtyard	4179	2018-1868		glass		small glass cup	1	05/05/2018	
House Southeastern Courtyard	4127	2018-1869		terracotta	figurine	fragment of animal figurine from the sieve	1	05/05/2018	
House Southeastern Courtyard	4132	2018-1870		metal	coin	copper alloy coin	1	05/05/2018	
House Southeastern Courtyard	4132	2018-1871		metal	copper alloy	copper alloy object	1	05/05/2018	
House Southeastern Courtyard	4132	2018-1872		bone				05/05/2018	
House Southeastern Courtyard	4132	2018-1873		pottery		sherds		05/05/2018	
House Southeastern Courtyard	4132	2018-1874		slag				05/05/2018	15.34 g
House Southern Addition	4182	2018-1876		metal	ring	fragments of iron tool ring	3	05/05/2018	10,19 gr
House Southern Addition	4182	2018-1877		pottery		sherds		05/05/2018	
House Southeastern Courtyard	4132	2018-1879		shell				05/05/2018	
House Southern Addition	4182	2018-1880		bone				05/05/2018	
House Southern Addition	4182	2018-1881		glass		non-diagnostic shards	2	06/05/2018	
House Southern Addition	4182	2018-1882		glass		diagnostic shards	1	06/05/2018	
House Southern Addition	4182	2018-1883		shell				06/05/2018	
House Southern Addition	4182	2018-1884		slag				06/05/2018	18.75 g
House Southeastern Courtyard	4179	2018-1885		bone				06/05/2018	
House Southeastern Courtyard	4179	2018-1886		pottery		sherds		06/05/2018	
House Southeastern Courtyard	4184	2018-1887		soil	sample			06/05/2018	
House Southeastern Courtyard	4184	2018-1888		organic	soil sample	including charred wood		06/05/2018	
House Southeastern Courtyard	4184	2018-1889		pottery		sherds		06/05/2018	

House Southeastern Courtyard	4186	2018-1890		glass		diagnostic shards	1	06/05/2018	
House Southeastern Courtyard	4186	2018-1891		glass		non-diagnostic shards	9	06/05/2018	
House Southeastern Courtyard	4186	2018-1892		bone				06/05/2018	
House Southeastern Courtyard	4186	2018-1893		metal	copper alloy	copper alloy fragment	1	06/05/2018	
House Southeastern Courtyard	4186	2018-1894		pottery		sherds		06/05/2018	
House Southeastern Courtyard	4187	2018-1895		pottery		sherds		06/05/2018	
House Southeastern Courtyard	4187	2018-1896		bone				06/05/2018	
House Southeastern Courtyard	4187	2018-1897		shell				06/05/2018	
House Southeastern Courtyard	4187	2018-1898		glass		diagnostic shards	2	06/05/2018	
House Southeastern Courtyard	4187	2018-1899		glass		non-diagnostic shards	5	06/05/2018	
House Southeastern Courtyard	4187	2018-1900		glass	bracelet	fragment of glass bracelet	1	06/05/2018	2,96 gr
House Southeastern Courtyard	4186	2018-1901		glass	bracelet	fragment of glass bracelet - from the sieve	1	06/05/2018	1,19 gr
House Southeastern Courtyard	4187	2018-1902		faience		fragment of faience	1	06/05/2018	
House Southeastern Courtyard	4189	2018-1903		bone	hairpin	worked bone - possible hairpin		06/05/2018	
House Southeastern Courtyard	4189	2018-1904		pottery		sherds		06/05/2018	
House Southeastern Courtyard	4189	2018-1905		glass		non-diagnostic shards	18	06/05/2018	
House Southeastern Courtyard	4189	2018-1906		slag				06/05/2018	14.63 g
House Southeastern Courtyard	4189	2018-1907		shell				06/05/2018	
House Southeastern Courtyard	4189	2018-1908		metal	coin	copper alloy coin	1	06/05/2018	
House Southeastern Courtyard	4189	2018-1909		metal	coin	copper alloy coin, incorporated in the body sherd - from the sieve	1	06/05/2018	
House Southeastern Courtyard	4189	2018-1910		bone				06/05/2018	
House Southeastern Courtyard	4190	2018-1911		glass		diagnostic shards	5	07/05/2018	
House Southeastern Courtyard	4190	2018-1912		pottery		sherds		07/05/2018	
House Southeastern Courtyard	4190	2018-1913		slag				07/05/2018	5.01 g
House Southeastern Courtyard	4190	2018-1914		bone				07/05/2018	
House Southeastern Courtyard	4190	2018-1915		shell				07/05/2018	
House Southeastern Courtyard	4190	2018-1916		glass	bracelet	fragment of glass bracelet from the sieve	1	07/05/2018	1,78 gr
House Southeastern Courtyard	4190	2018-1917		bone	worked bone	worked bone (from the sieve)	1	07/05/2018	
House Southeastern Courtyard	4190	2018-1918		metal	copper alloy	fragment of copper alloy object (from the sieve)	1	07/05/2018	0,58 gr

House Southeastern Courtyard	4190	2018-1919		bone	worked bone	worked bone (from the sieve)	1	07/05/2018	
House Southeastern Courtyard	4190	2018-1920		metal	nail	fragment of iron nail from the sieve	1	07/05/2018	3,33 gr
House Southeastern Courtyard	4131	2018-1921		metal	coin	copper alloy coin	1	07/05/2018	6,80 gr
House Southeastern Courtyard	4137	2018-1922		pottery		sherds		07/05/2018	
House Southeastern Courtyard	4137	2018-1923		plaster	painted	painted fragments		07/05/2018	
House Southeastern Courtyard	4137	2018-1924		glass		non-diagnostic shards	3	07/05/2018	
House Southeastern Courtyard	4137	2018-1925		shell		cowry	1	07/05/2018	
House Southeastern Courtyard	4137	2018-1926		bone				07/05/2018	
House Southeastern Courtyard	4137	2018-1927		shell				07/05/2018	
House Southeastern Courtyard	4137	2018-1928		slag				07/05/2018	1.65 kg
House Southeastern Courtyard	4137	2018-1929		stone	limestone	worked limestone		07/05/2018	
House Southeastern Courtyard	4137	2018-1930		building material		fired brick with mortar/plaster coating		07/05/2018	
House Southeastern Courtyard	4137	2018-1931		stone		worked stone ? Object	1	07/05/2018	
House Southeastern Courtyard	4137	2018-1932		glass		diagnostic shards	1	07/05/2018	
House Southeastern Courtyard	4131	2018-1933		pottery		sherds		07/05/2018	
House Southeastern Courtyard	4131	2018-1934		pottery	lamp	lamp fragment	1	07/05/2018	
House Southeastern Courtyard	4131	2018-1935		bone				07/05/2018	
House Southeastern Courtyard	4131	2018-1936		glass		non-diagnostic shards	26	07/05/2018	
House Southeastern Courtyard	4131	2018-1937		bone	hairpin	worked bone, possibly hairpin (from the sieve)	1	07/05/2018	
House Southeastern Courtyard	4131	2018-1938		slag				07/05/2018	46.08 g
House Southeastern Courtyard	4131	2018-1939		shell				07/05/2018	
House Southeastern Courtyard	4131	2018-1940		metal	nail	iron nail from the sieve	2	09/05/2018	4,28 gr - 4,20 gr
House Southeastern Courtyard	4192	2018-1941		pottery		sherds		08/05/2018	
House Southeastern Courtyard	4192	2018-1942		glass		non-diagnostic shards	3	08/05/2018	
House Southeastern Courtyard	4192	2018-1943		bone				08/05/2018	
House Southeastern Courtyard	4192	2018-1944		metal	copper alloy	copper alloy fragment from the sieve	1	08/05/2018	0,72 gr
House Southeastern Courtyard	4193	2018-1945		glass		non-diagnostic shards	12	08/05/2018	
House Southeastern Courtyard	4193	2018-1946		pottery		sherds		07/05/2018	
House Southeastern Courtyard	4193	2018-1947		bone				08/05/2018	

House Southeastern Courtyard	4193	2018-1948		shell				08/05/2018	
House Southeastern Courtyard	4193	2018-1949		metal	copper alloy	copper alloy fragments	3	08/05/2018	6,63 gr
House Southeastern Courtyard	4193	2018-1950		metal	nail	iron nails from the sieve	3	08/05/2018	9,99 gr - 8,17 gr - 5,4 gr
House Southeastern Courtyard	4193	2018-1951		glass		diagnostic shards	4	08/05/2018	
House Southeastern Courtyard	4193	2018-1952		glass	bracelet	fragment of glass bracelet from the sieve	2	08/05/2018	5,52 gr - 0,72 gr
House Southeastern Courtyard	4193	2018-1953		slag				08/05/2018	35 g
House Southeastern Courtyard	4131	2018-1954		metal	coin	copper alloy coin	1	08/05/2018	
House Southeastern Courtyard	4131	2018-1955		metal	nail	iron nails from the sieve	2	08/05/2018	4,23 gr - 4,27 gr
House Southeastern Courtyard	4131	2018-1956		glass		diagnostic shards	6	08/05/2018	
House Southeastern Courtyard	4131	2018-1957		wood		fragments of worked wood? (from the sieve)	3	08/05/2018	
House Southeastern Courtyard	4131	2018-1958		glass	bracelet	fragment of glass bracelet from the sieve	2	08/05/2018	0,85 gr - 0,88 gr
House Southeastern Courtyard	4131	2018-1959		metal	ring	copper alloy ring from the sieve	1	09/05/2018	2,98 gr
House Southeastern Courtyard	4131	2018-1960		metal	coin	copper alloy coin (from the sieve)	1	09/05/2018	
House Southeastern Courtyard	4191	2018-1961		pottery		sherds		09/05/2018	
House Southeastern Courtyard	4191	2018-1962		slag				09/05/2018	5.45 kg
House Southeastern Courtyard	4191	2018-1963		bone				09/05/2018	
House Southeastern Courtyard	4191	2018-1964		shell				09/05/2018	
House Southeastern Courtyard	4191	2018-1965		glass		non-diagnostic shards	7	09/05/2018	
House Southeastern Courtyard	4191	2018-1966		metal	coin	copper alloy coin (from the sieve)	1	09/05/2018	
House Southeastern Courtyard	4191	2018-1967		glass	bracelet	fragment of glass bracelet from the sieve	1	09/05/2018	0,34 gr
House Southeastern Courtyard	4191	2018-1968		metal	nail	fragments of iron nail	1	09/05/2018	1,71 gr
House Southeastern Courtyard	4191	2018-1969		metal	coin	copper alloy coin (over floor)	1	09/05/2018	
House Southeastern Courtyard	4191	2018-1970		glass		diagnostic shards	13	09/05/2018	
House Southeastern Courtyard	4191	2018-1971		metal	nail	fragments of iron nail from the sieve	7	09/05/2018	28,11 gr
House Southeastern Courtyard	4191	2018-1972		bone	hairpin	worked bone - possible hairpin (over floor ?)	1	09/05/2018	
House Southeastern Courtyard	4191	2018-1973		bone	hairpin	worked bone - possible hairpin (from the sieve)	1	09/05/2018	
House Southeastern Courtyard	4191	2018-1975		bone	worked bone	worked bone (over floor?)	1	09/05/2018	
House Southeastern Courtyard	4191	2018-1976		metal	copper alloy	copper alloy fragment from the sieve	1	09/05/2018	1,76 gr
House Southeastern Courtyard	4191	2018-1977		metal	nail	fragment of iron nail	1	09/05/2018	2,68 gr

House Southeastern Courtyard	4191	2018-1978		pottery	lamp	fragment of lamp from the sieve	1	09/05/2018	
House Southeastern Courtyard	4191	2018-1979		metal	coin	copper alloy coin	1	09/05/2018	
House Southeastern Courtyard	4191	2018-1980		bone	hairpin	worked bone - possible hairpin (from the sieve)	1	09/05/2018	
House Southeastern Courtyard	4191	2018-1981		metal	coin	copper alloy coin	1	09/05/2018	
House Southeastern Courtyard	4191	2018-1982		glass	bracelet	fragment of glass bracelet from the sieve	1	09/05/2018	1,16 gr
House Southeastern Courtyard	4191	2018-1983		bone	hairpin	worked bone - possible hairpin	1	09/05/2018	
House Southeastern Courtyard	4191	2018-1984		organic		charred twigs		10/05/2018	
House Southeastern Courtyard	4191	2018-1985		metal	coin	copper alloy coin (from the sieve)	1	10/05/2018	
House Southeastern Courtyard	4191	2018-1986		bone	hairpin	worked bone - possible hairpin (From the sieve)	1	10/05/2018	
House Southern Addition	4196	2018-1987		pottery		sherds		10/05/2018	
House Southern Addition	4196	2018-1988		shell				10/05/2018	
House Southern Addition	4196	2018-1989		bone				10/05/2018	
House Southern Addition	4196	2018-1990		slag				10/05/2018	59.92 g
House Southern Addition	4196	2018-1991		glass	bracelet	fragment of glass bracelet	1	10/05/2018	3,55 gr
House Southern Addition	4195	2018-1992		pottery		sherds		10/05/2018	
House Southern Addition	4195	2018-1993		metal	copper alloy	copper alloy fragments (from the sieve)	2	10/05/2018	
House Southern Addition	4195	2018-1994		metal	nail	fragments of iron nails from the sieve	2	10/05/2018	7,23 gr
House Southern Addition	4195	2018-1995		bone				10/05/2018	
House Southern Addition	4195	2018-1996		building material		fired brick	2	10/05/2018	
House Southern Addition	4195	2018-1997		glass		diagnostic shards	1	10/05/2018	
House Southern Addition	4197	2018-1998		organic	soil sample	including charred wood		10/05/2018	
House Southern Addition	4197	2018-1999		pottery		sherds		10/05/2018	
House Southern Addition	4197	2018-2000		bone				10/05/2018	
Area between House and Third Building	4155	2018-2001		pottery		sherds		10/05/2018	
Area between House and Third Building	4155	2018-2002		glass		non-diagnostic shards	49	12/05/2018	
Area between House and Third Building	4155	2018-2003		shell				12/05/2018	
Area between House and Third Building	4155	2018-2004		bone				12/05/2018	
Area between House and Third Building	4155	2018-2005		metal	coin	copper alloy coin (from the sieve)	3	12/05/2018	

Area between House and Third Building	4155	2018-2006		slag				12/05/2018	72.31 g
Area between House and Third Building	4155	2018-2007		glass		diagnostic shards	17	12/05/2018	
Area between House and Third Building	4155	2018-2008		glass	bracelet	fragment of glass bracelet from the sieve	1	12/05/2018	1,26 gr
Area between House and Third Building	4155	2018-2009		metal	iron	iron fragment from the sieve	1	12/05/2018	1,69 gr
Area between House and Third Building	4155	2018-2010		metal	copper alloy	copper alloy fragment (from the sieve)	few	12/05/2018	2,25 gr
Area between House and Third Building	4155	2018-2011		metal	coin	copper alloy coin	1	12/05/2018	
Area between House and Third Building	4155	2018-2012		metal	copper alloy	copper alloy fragments (from the sieve)	4	12/05/2018	5,20 gr
Area between House and Third Building	4155	2018-2013		metal	copper alloy	copper alloy fragment	2	12/05/2018	3,09 gr
Area between House and Third Building	4155	2018-2014		metal	nail	iron nails from the sieve (fragments)	3	12/05/2018	14,97 gr - 17,69 gr - 2,92 gr
Area between House and Third Building	4155	2018-2015		glass	bracelet	fragment of glass bracelet from the sieve	1	12/05/2018	1,68 gr
Area between House and Third Building	4155	2018-2016		glass	bracelet	fragment of glass bracelet	1	12/05/2018	3,95 gfr
Area between House and Third Building	4155	2018-2017		faience		fragments	1	12/05/2018	
Area between House and Third Building	4155	2018-2018		glass	bracelet	fragment of glass bracelet	1	12/05/2018	1,83 gr
Area between House and Third Building	4155	2018-2019		glass	bracelet	fragment of glass bracelet from the sieve	1	12/05/2018	2,99 gr
Area between House and Third Building	4155	2018-2020		metal	copper alloy	copper alloy fragment	1	12/05/2018	2,24 gr
Area between House and Third Building	4155	2018-2021		bone	hairpin	worked bone - possible hairpin (from the sieve)	1	12/05/2018	
House Southern Addition	4196	2018-2022		building material		modified fired brick / part of installation		13/05/2018	
House Southern Addition	4198	2018-2023		pottery		sherds		13/05/2018	
House Southern Addition	4198	2018-2024		metal	coin	copper alloy coin	1	13/05/2018	
House Southern Addition	4198	2018-2025		bone				13/05/2018	
House Southern Addition	4198	2018-2026		glass		diagnostic shards	few?	13/05/2018	
House Southern Addition	4198	2018-2027		glass		non-diagnostic shards	few?	13/05/2018	
House Southern Addition	4198	2018-2028		metal	coin	copper alloy coin (from the sieve)	1	13/05/2018	
House Southern Addition	4198	2018-2029		slag				13/05/2018	30.39 g

House Southern Addition	4202	2018-2030		stone		tessera for mosaic ?	1	13/05/2018	
House Southern Addition	4202	2018-2031		pottery		sherds		13/05/2018	
House Southern Addition	4202	2018-2032		bone				13/05/2018	
	n/a	2018-2033		bone	worked bone	worked bone - sporadic find from the backfill	1	14/05/2018	10,25 gr
House Room B	4050 SL001	2018-2034		metal	coin	copper alloy coin	1	14/05/2018	
House Room B	4050 SL001	2018-2035		metal	coin	copper alloy coin	1	14/05/2018	
House Room B	4050 SL001	2018-2036		metal	coin	copper alloy coin	1	14/05/2018	
House Room B	4050 SL001	2018-2037		metal	coin	copper alloy coin	1	14/05/2018	
	n/a	2018-2038		bead	faience	faience, sporadic find from the backfill over W 4049	1	14/05/2018	
	n/a	2018-2040		glass		diagnostic shards - sporadic find from the backfill	1	14/05/2018	
	n/a	2018-2041		glass		non-diagnostic shards - sporadic find from the backfill	5	14/05/2018	
Area between Southeastern Courtyard, House, and Street	4208	2018-2042		metal	nail	iron nails from the sieve (fragments)	3	15/05/2018	12,74 gr
Area between Southeastern Courtyard, House, and Street	4208	2018-2043		pottery		sherds		15/05/2018	
Area between Southeastern Courtyard, House, and Street	4208	2018-2044		bone				15/05/2018	
Area between Southeastern Courtyard, House, and Street	4208	2018-2045		slag				15/05/2018	2.4 kg
Area between Southeastern Courtyard, House, and Street	4208	2018-2046		metal	coin	copper alloy coin	1	15/05/2018	
Area between Southeastern Courtyard, House, and Street	4208	2018-2047		metal	coin	copper alloy coin	1	15/05/2018	
Area between Southeastern Courtyard, House, and Street	4208	2018-2048		metal	coin	copper alloy coin	1	15/05/2018	
Area between Southeastern Courtyard, House, and Street	4208	2018-2049		glass		diagnostic shards	3	15/05/2018	
Area between Southeastern Courtyard, House, and Street	4208	2018-2050		metal	coin	copper alloy coin	1	15/05/2018	
House Room B	4050 SL001	2018-2051		metal	coin	copper alloy coin	1	15/05/2018	
House Room B	4050 SL001	2018-2052		metal	coin	copper alloy coin	1	15/05/2018	
House Room B	4050 SL001	2018-2053		metal	coin	copper alloy coin	1	15/05/2018	
Area between Southeastern Courtyard, House, and Street	4208	2018-2054		bone	hairpin	worked bone - possible hairpin	1	15/05/2018	

	n/a	2018-2055		metal	coin	copper alloy coin, from the backfill	1	15/05/2018	
Area between Southeastern Courtyard, House, and Street	4208	2018-2056		metal	coin	copper alloy coin	1	15/05/2018	
Area between Southeastern Courtyard, House, and Street	4208	2018-2057		metal	coin	copper alloy coin	1	15/05/2018	
Area between Southeastern Courtyard, House, and Street	4208	2018-2058		glass		non-diagnostic shards	20	15/05/2018	
Area between Southeastern Courtyard, House, and Street	4208	2018-2059		metal	coin	copper alloy coin	1	15/05/2018	
Area between Southeastern Courtyard, House, and Street	4208	2018-2060		metal	coin	copper alloy coin		15/05/2018	
Area between Southeastern Courtyard, House, and Street	4208	2018-2061		glass	bracelet	fragment of glass bracelet	1	15/05/2018	2,71 gr
Area between Southeastern Courtyard, House, and Street	4208	2018-2062		metal	coin	copper alloy coin	1	15/05/2018	
Area between Southeastern Courtyard, House, and Street	4208	2018-2063		metal	coin	copper alloy coin	1	15/05/2018	
Area between Southeastern Courtyard, House, and Street	4208	2018-2064		metal	coin	copper alloy coin	1	15/05/2018	
Area between Southeastern Courtyard, House, and Street	4208	2018-2065		metal	coin	copper alloy coin	1	15/05/2018	
Area between Southeastern Courtyard, House, and Street	4208	2018-2066		sample		pitch from amphora base from the sieve		15/05/2018	
Area between Southeastern Courtyard, House, and Street	4208	2018-2068		metal	copper alloy	copper alloy fragment (from the sieve)	1	15/05/2018	
Area between Southeastern Courtyard, House, and Street	4208	2018-2069		metal	coin	copper alloy coin	1	15/05/2018	
Area between Southeastern Courtyard, House, and Street	4208	2018-2070		metal	coin	copper alloy coin	1	15/05/2018	
Area between Southeastern Courtyard, House, and Street	4208	2018-2071		bone	hairpin	worked bone - possible hairpin (rom the sieve)	1	15/05/2018	
Area between Southeastern Courtyard, House, and Street	4208	2018-2072		metal	coin	copper alloy coin	1	15/05/2018	
Area between Southeastern Courtyard, House, and Street	4212	2018-2074		glass		non-diagnostic shards	41	15/05/2018	

Area between Southeastern Courtyard, House, and Street	4212	2018-2074		pottery		sherds		15/05/2018	
Area between Southeastern Courtyard, House, and Street	4212	2018-2075		metal	coin	copper alloy coin	1	15/05/2018	
Area between Southeastern Courtyard, House, and Street	4212	2018-2076		metal	coin	copper alloy coin	1	15/05/2018	
Area between Southeastern Courtyard, House, and Street	4212	2018-2077		shell				15/05/2018	
Area between Southeastern Courtyard, House, and Street	4212	2018-2078		bone				15/05/2018	
Area between Southeastern Courtyard, House, and Street	4212	2018-2079		metal	nail	iron nails from the sieve (fragments)	7	15/05/2018	13,92 gr
Area between Southeastern Courtyard, House, and Street	4212	2018-2080		glass		diagnostic	23	15/05/2018	
Area between Southeastern Courtyard, House, and Street	4212	2018-2081		slag				15/05/2018	3.66 g
Area between Southeastern Courtyard, House, and Street	4212	2018-2082		metal	coin	copper alloy coin (from the sieve)	3	15/05/2018	
Area between Southeastern Courtyard, House, and Street	4212	2018-2083		metal	nail	iron nail	1	15/05/2018	1,66 gr
Area between Southeastern Courtyard, House, and Street	4212	2018-2084		metal	iron	iron fragment from the sieve	1	16/05/2018	2,55 gr
Area between Southeastern Courtyard, House, and Street	4212	2018-2085		metal	coin	copper alloy coin	1	16/05/2018	
Area between Southeastern Courtyard, House, and Street	4212	2018-2086		metal	object	copper alloy, long tool with looped ends on both sides	1	16/05/2018	
Area between Southeastern Courtyard, House, and Street	4212	2018-2087		metal	copper alloy	fragment of copper alloy from the sieve	1	16/05/2018	0,07 gr
Area between Southeastern Courtyard, House, and Street	4212	2018-2088		metal	coin	copper alloy coin	1	16/05/2018	
Area between Southeastern Courtyard, House, and Street	4211	2018-2089		pottery		sherds		16/05/2018	
House Southeastern Courtyard	4133 / 4211	2018-2089		pottery		sherds		16/05/2018	
Area between Southeastern Courtyard, House, and Street	4211	2018-2090		bone				16/05/2018	

Area between Southeastern Courtyard, House, and Street	4211	2018-2091		glass		diagnostic shards	4	16/05/2018	
Area between Southeastern Courtyard, House, and Street	4211	2018-2092		shell				16/05/2018	
Area between Southeastern Courtyard, House, and Street	4211	2018-2093		glass		non-diagnostic shards	18	16/05/2018	
Area between Southeastern Courtyard, House, and Street	4211	2018-2094		metal	nail	iron nails	2	16/05/2018	9,37 gr - 3,51 gr
Area between Southeastern Courtyard, House, and Street	4211	2018-2095		slag				16/05/2018	150.35 g
House Room C	4215	2018-2096		wood?		pendant fragment (wood or burnt bone?)	1	10/10/2018	1,03 gr
House Room C	4215	2018-2097		pottery		sherds		10/10/2018	
House Room C	4215	2018-2098		plaster	painted	painted fragments	34	10/10/2018	
House Room C	4215	2018-2099		bone				10/10/2018	
House Room C	4215	2018-2100		glass		non-diagnostic shards	14	10/10/2018	18,91 gr
House Room C	4215	2018-2101		faience		fragment of faience base	1	10/10/2018	15.87 gr
House Room C	4215	2018-2102		slag			2 large bags	10/10/2018	6.1 kg
House Room C	4215	2018-2103		metal	nail	iron nail	1	10/10/2018	3,60 gr
House Room C	4215	2018-2104		metal	copper alloy	copper alloy fragment	1	10/10/2018	0,11 gr
House Room C	4215	2018-2105		metal	coin	copper alloy coin	1	10/10/2018	
House Room C	4215	2018-2106		metal	nail	iron nails	2	10/10/2018	4,65 gr
House Room C	4215	2018-2107		slag		fragments of worked slag	2 bags	10/10/2018	5.74 g
House Room C	4215	2018-2108		glass		diagnostic shards	5	10/10/2018	13,82 gr
House Room C	4215	2018-2109		stone		worked fragment	1	10/10/2018	100 g
House Room C	4215	2018-2110		stone	limestone	worked fragment	1	10/10/2018	150 g
House Room C	4215	2018-2111		shell			2 bags	10/10/2018	
House Room C	4216	2018-2112		shell				10/10/2018	
House Room C	4216	2018-2113		pottery		sherds		10/10/2018	
House Room C	4216	2018-2114		bone				10/10/2018	
House Room C	4216	2018-2115		plaster	painted	painted fragments	2	10/10/2018	4,81 gr
House Room C	4217	2018-2116		pottery		sherds		10/10/2018	
House Room C	4217	2018-2117		slag		vitrified fragments	2 bags	11/10/2018	3.4 kg
House Room C	4217	2018-2118		bone				11/10/2018	
House Room C	4217	2018-2119		plaster	painted	painted fragments	6	11/10/2018	83,17 gr
House Room C	4217	2018-2119		plaster	painted	painted fragments	29	24/10/2018	
House Room C	4217	2018-2120		shell				11/10/2018	
House Room C	4216	2018-2121		slag		vitrified fragments	1 bag	10/10/2018	980 g
House Room C	4217	2018-2122		slag		iron slag	1 bag	11/10/2018	150 g
House Room C	4217	2018-2123		metal	nail	iron nail	1	11/10/2018	5,38 gr
House Room C	4219	2018-2124		pottery		sherds		11/10/2018	
House Room C	4219	2018-2125		plaster	painted	painted fragments	190	20/10/2018	

House Room C	4219	2018-2126		slag			2 large bags, 1 bag	14/10/2018	6.24 kg
House Room C	4219	2018-2127		bone				14/10/2018	
House Room C	4219	2018-2128		shell				14/10/2018	
House Room C	4219	2018-2129		metal	nail	iron nail	3	14/10/2018	12,52 gr
House Room C	4219	2018-2129		metal	nail	iron nails	2	18/10/2018	15,08 gr
House Room C	4219	2018-2130		slag		iron slag	1 bag	14/10/2018	0.3 kg
House Room C	4219	2018-2131		metal	coin	copper alloy coin	1	11/10/2018	
House Room C	4219	2018-2132		metal	nail	iron nail	1	11/10/2018	7,07 gr
House Room C	4219	2018-2133		metal	nail	iron nail	1	11/10/2018	8,44 gr
House Room C	4219	2018-2134		metal	iron	iron fragments	2	14/10/2018	32,85 gr
House Room C	4219	2018-2135		metal	nail	fragments of large iron nail	2	11/10/2018	41,44 gr
House Room C	4219	2018-2136		faience		fragment	1	14/10/2018	5.30 gr
House Room C	4225	2018-2136		faience		fragments	21	18/10/2018	13.81 gr
House Room C	4219	2018-2137		glass		diagnostic shards	13	14/10/2018	2,55 gr
House Room C	4220	2018-2138		pottery		sherds		13/10/2018	
House Room C	4220	2018-2139		bone				14/10/2018	
House Room C	4220	2018-2140		Shell				14/10/2018	
House Room C	4220	2018-2141		slag			2 bags	14/10/2018	5.9 kg
House Room C	4220	2018-2142		plaster	painted	painted fragments	83	21/10/2018	
House Room C	4220	2018-2143		slag		iron slag	2 bags	14/10/2018	1.605 kg
House Room C	4217	2018-2144		glass		non-diagnostic shards	9	16/10/2018	1,6 gr
House Room C	4220	2018-2145		glass		non-diagnostic shards	6	14/10/2018	0,08 gr
House Room C	4220	2018-2146		stone	limestone	fragment of worked limestone	1	14/10/2018	153,28 gr
	n/a	2018-2147		metal	copper alloy	copper alloy fragments, sporadic find in backfill, mid-western side (close to unit's limit)	2	14/10/2018	3,91 gr
	n/a	2018-2148		metal	coin	copper alloy, sporadic find in the backfill, mid-western side (close to unit's limit)	2	14/10/2018	
House Room C	4221	2018-2149		pottery		sherds		14/10/2018	
House Room C	4221	2018-2149		pottery		sherds		14/10/2018	
House Room C	4221	2018-2150		plaster	painted	painted fragments	78	21/10/2018	
House Room C	4221	2018-2151		slag			1 large bag	14/10/2018	2.2 kg
House Room C	4221	2018-2152		slag			1 large bag	14/10/2018	3.1 kg
House Room C	4221	2018-2153		bone				14/10/2018	
House Room C	4221	2018-2154		shell				14/10/2018	
House Room C	4221	2018-2154		shell				14/10/2018	
House Room C	4221	2018-2155		glass		non-diagnostic shards	6	14/10/2018	
House Room C	4221	2018-2156		glass		diagnostic shards	4	14/10/2018	
House Room C	4221	2018-2157		metal	copper alloy	copper alloy fragment	1	14/10/2018	0,18 gr
House Room C	4221	2018-2158		metal	iron	iron fragments	4	14/10/2018	25,38 gr
House Room C	4221	2018-2159		metal	copper alloy	copper alloy object	1	14/10/2018	0,62 gr
House Room C	4221	2018-2160		pottery	lamp	lamp fragment	1	14/10/2018	4,92 gr
House Room C	4221	2018-2161		metal	object	copper alloy tool in fragments	3	14/10/2018	1,23 gr

House Room C	4221	2018-2162		metal	nail	iron nails (1 is fragmented)	2	14/10/2018	7,92 gr
House Room C	4221	2018-2163		stone		fragments of worked stone	2	14/10/2018	182,36 gr
House Room C	4222	2018-2164		pottery		sherds		14/10/2018	
House Room C	4222	2018-2165		plaster	painted	painted fragments	36	22/10/2018	
House Room C	4222	2018-2166		bone				15/10/2018	
House Room C	4222	2018-2167		slag			1 bag	15/10/2018	1.4 kg
House Room C	4222	2018-2168		metal	nail	iron nails	2	15/10/2018	10,11 gr
House Room C	4222	2018-2169		metal	iron	fragments of iron objects	6	15/10/2018	27,72 gr
House Room C	4222	2018-2170		faience		fragments	2	15/10/2018	4 gr
House Room C	4222	2018-2171		Metal	coin	copper alloy coin	1	15/10/2018	
House Room C	4222	2018-2172		shell				15/10/2018	
House Room C	4222	2018-2173		metal	copper alloy	fragment of copper alloy object	1	15/10/2018	
House Room C	4222	2018-2173		metal	copper alloy	fragment of copper alloy object	1	15/10/2018	1,64 gr
House Room C	4222	2018-2174		slag		iron slag	1 bag	15/10/2018	1.25 kg
House Room C	4215	2018-2175		pottery	lamp	two fragments of two different lamps	2	10/10/2018	
House Room C	4215	2018-2177		pottery	object?	fragment of scraper?	1	14/10/2018	2,21 gr
House Room C	4215	2018-2178		metal	coin	copper alloy coin	1	15/10/2018	
House Room C	4215	2018-2179		stone	object?	Scraper?	1	15/10/2018	8,12 gr
House Room C	4215	2018-2180		stone	object?	Scraper?	1	15/10/2018	1,35 gr
Wall	4031	2018-2181		metal	coin	copper alloy coin	1	15/10/2018	
Wall	4031	2018-2182		metal	coin	copper alloy coin	1	15/10/2018	
House Room C	4215	2018-2183		slag			1 bag	16/10/2018	1.1 kg
House Room C	4215	2018-2184		stone	marble	fragment of marble	1	15/10/2018	24,05 gr
House Room C	4217	2018-2185		faience		fragments	3	16/10/2018	5.11 gr
House Room C	4215	2018-2186		metal	iron	fragment of object	1	15/10/2018	1,43 gr
House Room C	4219	2018-2187		pottery	lamp	fragment of lamp	1	15/10/2018	25,86 gr
House Room C	4219	2018-2188		stone	object?	fragment of worked stone, possible tool?	1	15/10/2018	18,26 gr
House Room C	4217	2018-2189		stone	object?	Scraper?	1	16/10/2018	2,29 gr
House Room C	4219	2018-2190		faience		concentration of fragments	36	16/10/2018	21.64 gr
House Room C	4219	2018-2191		bone		fragment	1	16/10/2018	0,53 gr
House Room C	4219	2018-2192		glass	bracelet	fragment of glass bracelet	1	16/10/2018	1,52 gr
House Room C	4219	2018-2193		metal	copper alloy	fragment of copper alloy object (maybe tool?)	1	16/10/2018	0,43 gr
House Room C	4219	2018-2194		metal	coin	copper alloy coin	1	16/10/2018	
House Room C	4219	2018-2195		metal	coin	copper alloy coin	1	16/10/2018	
House Room C	4219	2018-2196		glass		non-diagnostic shards	18	17/10/2018	8,67 gr
House Room C	4219	2018-2197		stone	rhizoconcretion	Petrified Nile plant	1	18/10/2018	5,88 gr
House Room C	4221	2018-2198		stone	rhizoconcretion	Petrified Nile plant	1	16/10/2018	9,80 gr
House Room C	4222	2018-2199		stone	rhizoconcretion	Petrified Nile plant	3	16/10/2018	11,92 gr
House Room C	4219	2018-2200		metal	coin	copper alloy coin	1	17/10/2018	
House Room C	4224	2018-2201		metal	iron	fragment of object	1	18/10/2018	3,93 gr

House Room C	4219	2018-2202		Stone		worked fragments	2	18/10/2018	59,64 gr - 39,90 gr
House Room C	4224	2018-2203		pottery		sherds		17/10/2018	
House Room C	4224	2018-2204		slag			1 bag	18/10/2018	0.5 kg
House Room C	4224	2018-2205		bone				17/10/2018	
House Room C	4224	2018-2206		metal	nail	iron nail	1	18/10/2018	13,28 gr
House Room C	4224	2018-2207		plaster	painted	painted fragments	1	22/10/2018	
House Room C	4224	2018-2208		glass		non-diagnostic shards	4	18/10/2018	
House Room C	4224	2018-2209		faience		Fragment	1	18/10/2018	
House Room C	4224	2018-2210		shell				17/10/2018	
House Room C	4225	2018-2211		pottery		sherds		17/10/2018	
House Room C	4225	2018-2212		slag			2 bags	18/10/2018	6.25 kg
House Room C	4225	2018-2213		bone				18/10/2018	
House Room C	4225	2018-2214		shell				18/10/2018	
House Room C	4225	2018-2215		plaster	painted	painted fragments	45	22/10/2018	
House Room C	4225	2018-2216		metal	iron	Fragments of objects	6	18/10/2018	6,46 gr - 7,59 gr - 3,14 gr - 3,56 gr - 4,46 gr - 5,17 gr
House Room C	4225	2018-2217		glass		non-diagnostic shards	19	18/10/2018	
House Room C	4225	2018-2218		metal	nail	iron nails	6	18/10/2018	4,01 gr - 7,32 gr - 7,98 gr - 2,65 gr - 6,45 gr - 0,61 gr
House Room C	4225	2018-2219		slag		iron slag	1 bag	18/10/2018	1.4 kg
House Room C	4225	2018-2220		stone		worked fragment of decoration	1	18/10/2018	0,5 kg
House Room C	4225	2018-2221		metal	coin	copper alloy coin	1	17/10/2018	
House Room C	4225	2018-2222		metal	copper alloy	fragment of copper alloy object	1	18/10/2018	6,10 gr
House Room C	4225	2018-2223		glass	bracelet	fragment of glass bracelet	1	18/10/2018	1,76 gr
House Room C	4224	2018-2224		glass		diagnostic shards	4	18/10/2018	
House Room C	4225	2018-2225		Stone		worked stone fragment with plaster coating	1	18/10/2018	77,43 gr
House Room C	4225	2018-2226		metal	nail	Fragmented iron nail	2	18/10/2018	12,70 gr
House Room C	4221	2018-2227		terracotta	figurine	Fragment of figurine	1	18/10/2018	
House Room C	4221	2018-2228		terracotta	figurine	Fragment of figurine	1	18/10/2018	
House Room C	4222	2018-2229		pottery	lamp	possible lamp fragment	1	18/10/2018	
House Room C	4217	2018-2230		pottery		decorated fragment	1	18/10/2018	
House Room C	4225	2018-2231		Stone	object?	Scraper?	1	18/10/2018	0,31 gr
House Room C	4225	2018-2232		Stone	marble	Fragment of pavonazzetto (?) marble slab	1	21/10/2018	2.2 kg
House Room C	4225	2018-2233		Stone	limestone	Worked limesotne fragment lying over floor 4220	1	21/10/2018	2.05 kg
House Room C	4225	2018-2234		Stone	limestone	Worked limesotne fragment lying over floor 4220	1	21/10/2018	2.4 kg
House Room C	4220	2018-2235		glass		diagnostic shards	1	20/10/2018	
House Room C	4220	2018-2236		Metal	nail	iron nails	11	20/10/2018	29,50 gr + 6,05gr - 4,07gr - 4,90gr

House Room C	4226	2018-2238		bone				20/10/2018	
House Room C	4226	2018-2239		metal	nail	Iron nails	40	20/10/2018	209,48 gr
House Room C	4226	2018-2240		metal	copper alloy	copper alloy fragment	1	20/10/2018	1,30 gr
House Room C	4226	2018-2241		slag		vitrified fragments	1 large bag	20/10/2018	10.35 kg
House Room C	4226	2018-2242		slag		iron slag	1 bag	20/10/2018	4.15 kg
House Room C	4226	2018-2243		Shell				20/10/2018	
House Room C	4226	2018-2244		glass		non-diagnostic shards	4	20/10/2018	
House Room C	4226	2018-2245		Stone	limestone	Worked fragment	1	20/10/2018	17,07 gr
House Room C	4226	2018-2246		metal	nail	copper alloy nail fragments	5	20/10/2018	7,34gr - 5,44gr - 3,17gr - 2,74 - 1,28gr
House Room C	4226	2018-2247		Metal	object	copper alloy needle? Fragmented	2	20/10/2018	0,61 gr
House Room C	4226	2018-2248		plaster	painted	painted fragments	31	22/10/2018	
House Room C	4226	2018-2249		glass		diagnostic shards	3	20/10/2018	
House Room C	4227	2018-2251		Bone				21/10/2018	
House Room C	4227	2018-2252		Shell				21/10/2018	
House Room C	4227	2018-2253		slag		vitrified fragments	2 large bags	20/10/2018	6.3 kg
House Room C	4227	2018-2254		slag		iron slag	1 small bag	21/10/2018	196 g
House Room C	4227	2018-2255		faience		Fragment	1	21/10/2018	
House Room C	4227	2018-2256		plaster	painted	painted fragments	150	22/10/2018	
House Room C	4227	2018-2257		Metal	nail	iron nails	3	21/10/2018	4,96 gr - 2 gr - 6,69 gr
House Room C	4227	2018-2258		Stone	object?	Scraper?	1	20/10/2018	4,25 gr
House Room C	4226	2018-2259		Metal	iron	Fragments of objects	53	20/10/2018	228,24 gr
House Room C	4219	2018-2260		Building material		Fragment of fired brick tile (maybe for floor?)	1	20/10/2018	77,24 gr
House Room C	4220	2018-2261		Metal	iron	iron fragments	15	20/10/2018	54,32 gr
House Room C	4227	2018-2262		Stone	rhizoconcretion	Petrified Nile plant	2	21/10/2018	28,90 gr
House Room C	4227	2018-2263		glass		non-diagnostic shards	3	21/10/2018	
House Room C	4227	2018-2264		glass		diagnostic shards	1	21/10/2018	
House Room C	4228	2018-2265		pottery		sherds		21/10/2018	
House Room C	4228	2018-2266		plaster	painted	painted fragments	289	24/10/2018	
House Room C	4228	2018-2267		slag		vitrified fragments	1 bag	21/10/2018	1.85 kg
House Room C	4228	2018-2268		slag		iron slag	1 small bag	21/10/2018	450 g
House Room C	4228	2018-2269		Metal	nail	Iron nail fragments	4	21/10/2018	1,59 gr - 2,83 gr - 1,71 gr - 1,88gr
House Room C	4228	2018-2270		glass		diagnostic shards	6	21/10/2018	
House Room C	4228	2018-2271		glass		non-diagnostic shards	8	21/10/2018	
House Room C	4228	2018-2272		Shell				21/10/2018	
House Room C	4228	2018-2273		Metal	nail	Iron nail fragments lying over F4229	7	21/10/2018	32,75 gr + 5,78gr - 3,56gr - 2,03gr - 3,26gr - 2,65gr - 4gr

House Room C	4228	2018-2274		bone				21/10/2018	
Under House Room C	4229	2018-2275		shell				21/10/2018	
Under House Room C	4229	2018-2277		bone				21/10/2018	
Under House Room C	4229	2018-2278		glass		non-diagnostic shards	1	21/10/2018	
Under House Room C	4230	2018-2279		pottery		sherds		21/10/2018	
Under House Room C	4230	2018-2280		Shell				21/10/2018	
Under House Room C	4230	2018-2281		Bone				21/10/2018	
Under House Room C	4230	2018-2282		slag		vitrified fragments	1 small bag	21/10/2018	50 g
Under House Room C	4230	2018-2283		Metal	iron	iron fragments	2	21/10/2018	2,96 gr - 3,16 gr
Under House Room C	4230	2018-2284		glass		non-diagnostic shards	2	21/10/2018	
Under House Room C	4230	2018-2285		slag		iron slag	1 small bag	21/10/2018	150 g
House Room C	4227	2018-2286		Metal	nail	iron nails	4	21/10/2018	9,87 gr
Under House Room C	4231	2018-2287		pottery		sherds		22/10/2018	
Under House Room C	4231	2018-2288		plaster	painted	painted fragments	5	24/10/2018	
Under House Room C	4231	2018-2289		Shell				22/10/2018	
Under House Room C	4231	2018-2290		Bone				22/10/2018	
Under House Room C	4231	2018-2291		glass		non-diagnostic shards	1	22/10/2018	
Under House Room C	4231	2018-2292		glass		diagnostic shards	1	22/10/2018	
Under House Room C	4231	2018-2293		slag			1 small bag	22/10/2018	350 g
Under House Room C	4231	2018-2294		metal	copper alloy	copper alloy fragment of object	1	22/10/2018	1,79 gr
Under House Room C	4231	2018-2295		Metal	iron	iron fragments	3	22/10/2018	9.39 gr
Under House Room C	4232	2018-2296		pottery		sherds		22/10/2018	
Under House Room C	4232	2018-2297		slag			1 small bag	22/10/2018	600 g
Under House Room C	4232	2018-2298		Bone				22/10/2018	
Under House Room C	4232	2018-2299		Shell				22/10/2018	
Under House Room C	4232	2018-2300		plaster	painted	painted fragments	3	22/10/2018	
Under House Room C	4232	2018-2301		glass		diagnostic shards	1	22/10/2018	
Under House Room C	4232	2018-2302		glass		non-diagnostic shards	2	22/10/2018	
Under House Room C	4232	2018-2303		Metal	iron	iron fragments	2	22/10/2018	5,62 gr
Under House Room C	4232	2018-2304		Stone	rhizoconcretion	Petrified Nile plant	1	22/10/2018	2,87 gr
House Room C	4228	2018-2307		Stone	marble	Fragment of worked marble	1	24/10/2018	89,98 gr
Roman Room	4234	2018-2308		pottery		sherds		24/10/2018	
Roman Room	4234	2018-2309		Shell				24/10/2018	
Roman Room	4234	2018-2310		Bone				24/10/2018	
Roman Room	4234	2018-2311		glass		non-diagnostic shards	1	24/10/2018	
Roman Room	4234	2018-2312		slag			1 bag	24/10/2018	4.4 kg
Roman Room	4234	2018-2313		plaster	painted	painted fragments	9	25/10/2018	
Roman Room	4234	2018-2314		metal	blade	Iron blade	3	24/10/2018	90,17 gr
Roman Room	4236	2018-2315		pottery		sherds		24/10/2018	

Roman Room	4236	2018-2316		slag			1 small bag	24/10/2018	110 g
Roman Room	4236	2018-2317		Bone				24/10/2018	
Roman Room	4236	2018-2318		faience		Fragments	2	24/10/2018	0.58 gr
Roman Room	4236	2018-2319		plaster	painted	painted fragments	3	24/10/2018	
Roman Room	4236	2018-2320		Shell				24/10/2018	
Roman Room	4236	2018-2321		Stone	limestone	Worked limestone	1	24/10/2018	
Roman Room	4236	2018-2321		Stone	limestone	Worked limestone and fragment of limestone slab	1	25/10/2018	3,5 kg
Roman Room	4236	2018-2322		stone	marble	Fragments of wall and floor marble slabs	7	24/10/2018	1,45 kg
Roman Room	4237	2018-2323		pottery		sherds		24/10/2018	
Roman Room	4237	2018-2324		Shell				24/10/2018	
Roman Room	4237	2018-2325		Bone				24/10/2018	
Roman Room	4237	2018-2326		Stone	marble	Fragment of slab	1	24/10/2018	400 gr
Roman Room	4237	2018-2327		plaster	painted	painted fragments	2	24/10/2018	
Roman Room	4237	2018-2328		slag			1 small bag	24/10/2018	35 g
Outside Roman Room	4235	2018-2329		Bone	dice	bone dice	1	24/10/2018	1,67 gr
Outside Roman Room	4235	2018-2330		pottery		sherds		24/10/2018	
Outside Roman Room	4235	2018-2331		Shell				24/10/2018	
Outside Roman Room	4235	2018-2332		Bone				24/10/2018	
Outside Roman Room	4235	2018-2333		metal	coin	copper alloy coin (from the sieve)	1	24/10/2018	
Outside Roman Room	4235	2018-2334		metal	coin	copper alloy coin	1	24/10/2018	
Outside Roman Room	4235	2018-2335		slag		vitrified slag	1 bag	24/10/2018	2.2 kg
Outside Roman Room	4235	2018-2336		plaster	painted	painted fragments	2	24/10/2018	
Outside Roman Room	4235	2018-2337		faience		Fragment	1	24/10/2018	2.32 gr
Outside Roman Room	4235	2018-2338		Metal	nail	Iron nail	2	24/10/2018	0,87 gr + 0,20gr
Outside Roman Room	4238	2018-2341		Shell				25/10/2018	
Outside Roman Room	4238	2018-2342		slag			1 small bag	25/10/2018	80.67 g
Outside Roman Room	4238	2018-2343		plaster		plaster on mortar	1	25/10/2018	
Outside Roman Room	4239	2018-2344		pottery		sherds		25/10/2018	
Outside Roman Room	4239	2018-2345		Shell				25/10/2018	
Outside Roman Room	4239	2018-2346		Bone				25/10/2018	
Outside Roman Room	4239	2018-2347		slag			1 small bag	25/10/2018	80.67 g
Outside Roman Room	4240	2018-2348		pottery		sherds		25/10/2018	
Outside Roman Room	4240	2018-2349		faience		diagnostic fragment	1	25/10/2018	16.28 gr
Outside Roman Room	4240	2018-2350		slag			1 small bag	25/10/2018	20.66 g
Outside Roman Room	4240	2018-2351		glass		non-diagnostic shards	9	25/10/2018	
Outside Roman Room	4240	2018-2352		glass		diagnostic shards	2	25/10/2018	
Outside Roman Room	4240	2018-2353		Bone				25/10/2018	

Outside Roman Room	4240	2018-2354		metal	copper alloy	copper alloy	1	25/10/2018	
Outside Roman Room	4240	2018-2355		Shell				25/10/2018	
Outside Roman Room	4240	2018-2356		Metal	nail	Iron nail	1	25/10/2018	10,67 gr
Outside Roman Room	4240	2018-2357		Stone	rhizoconcretion	Petrified Nile plant	1	25/10/2018	11,67 gr
Outside Roman Room	4240	2018-2358		Stone	object	Grinder fragment?	1	25/10/2018	400 gr
House Room C	4227	2019-2250		pottery		sherds		20/10/2018	
Under House Room C	4229	2019-2276		pottery		sherds		21/10/2018	
Under House Room C	4229	2019-2278		glass		non-diagnostic shards	5	14/04/2019	
House Room C	4216	2019-2306		pottery	lamp	one fragment of lamp (1st-2nd century CE)	1	/	
House Room C	4226	2019-2337		pottery		sherds		20/10/2018	
Outside Roman Room	4238	2019-2340		pottery		sherds		25/10/2018	
House Room C	4217	2019-2359		pottery	lamp	lamp fragment	1	03/04/2019	
Outside Roman Room	4238	2019-2361		pottery	lamp	lamp fragment	1	04/04/2019	
House Room C	4220	2019-2362		faience		Faience fragments	6	09/04/2019	
House Room C	4220	2019-2363		organic	soil sample	Soil with vegetal, charcoal and small white inclusions		09/04/2019	
House Room C	4220	2019-2364		metal	nail	iron nail	1	09/04/2019	6,66gr
House Room C	4220	2019-2365		metal	ring	Fragments of iron ring	3	09/04/2019	2,14gr - 4,47gr - 2,04gr
House Room C	4226	2019-2366		Metal	object	copper alloy fragment with loop	1	09/04/2019	0,27gr
House Room C	4227	2019-2367		pottery	lamp	lamp fragment	1	10/04/2019	
House Room C	4227	2019-2368		Stone	limestone	Worked limestone fragment	1	10/04/2019	
House Room C	4228	2019-2369		pottery		fragment	1	13/04/2019	
House Room C	4228	2019-2370		metal	copper alloy	copper alloy fragment	2	13/04/2019	0,90gr - 0,14gr
House Room C	4228	2019-2371		pottery	lamp	lamp fragment	1	13/04/2019	
House Room C	4228	2019-2372		metal	coin	copper alloy coin (from the sieve)	1	13/04/2019	
House Room C	4228	2019-2373		faience		Faience fragments	2	13/04/2019	
House Room C	4228	2019-2374		stone	object?	possible object (flat and eroded stone). Scraper?	3	13/04/2019	
House Room C	4228	2019-2375		stone		worked stone	2	13/04/2019	
House Room C	4228	2019-2376		soil	soil sample			13/04/2019	
House Room C	4228	2019-2377		metal	coin	copper alloy coin	1	13/04/2019	
House Room C	4228	2019-2378		metal	nail	iron nail	1	13/04/2019	15,07gr
House Room C	4228	2019-2379		faience		fragments of faience cup	few	13/04/2019	
House Room C	4228	2019-2380		bone				13/04/2019	
House Room C	4228	2019-2381		metal	nail	iron nail	1	13/04/2019	6,25gr
House Room C	4228	2019-2382		glass		diagnostic fragment (rim)	1	13/04/2019	
House Room C	4228	2019-2383		terracotta	figurine	fragment of terracotta figurine from the sieve	1	13/04/2019	
Foundation Trench of House	4242	2019-2384		pottery		sherds		13/04/2019	
Foundation Trench of House	4242	2019-2385		bone				13/04/2019	
Foundation Trench of House	4242	2019-2385		bone				29/04/2019	

Foundation Trench of House	4242	2019-2386		slag		vitrified slag		13/04/2019	1.3 kg
Foundation Trench of House	4242	2019-2386		slag				29/04/2019	
Foundation Trench of House	4242	2019-2387		plaster	painted	painted fragments	96	13/04/2019	
Foundation Trench of House	4242	2019-2387		plaster	painted	painted fragments	35	29/04/2019	
Foundation Trench of House	4242	2019-2388		shell				13/04/2019	
Foundation Trench of House	4242	2019-2388		shell				29/04/2019	
Foundation Trench of House	4242	2019-2389		stone		possible stone object ?	1	29/04/2019	
Foundation Trench of House	4242	2019-2389		stone	object?	possible object (flat and eroded stone). Scraper?	1	13/04/2019	
Foundation Trench of House	4242	2019-2390		faience		fragment	1	13/04/2019	
Foundation Trench of House	4242	2019-2390		faience		faience fragments		29/04/2019	
Foundation Trench of House	4242	2019-2391		metal	copper alloy	fragments of object (?)	2	13/04/2019	2,25gr
Foundation Trench of House	4242	2019-2391		metal	copper alloy	copper alloy fragment. Object?	1	29/04/2019	
Under House Room C	4229	2019-2396		stone		stone decoration	1	14/04/2019	0,47gr
Under House Room C	4229	2019-2397		metal	nail	iron nails fragments	8	14/04/2019	5,87gr - 4,13gr - 3,22gr - 3,62gr - 2,08 - 1,08gr - 1,20gr - 0,49gr
Under House Room C	4229	2019-2398		metal	nail	iron nail	1	14/04/2019	4,90gr
Under House Room C	4229	2019-2399		metal	copper alloy	copper alloy fragment	2	14/04/2019	0,33gr
Under House Room C	4229	2019-2400		slag		vitrified glass		14/04/2019	600 g
Under House Room C	4229	2019-2401		plaster	painted	painted fragments	1	14/04/2019	
Roman Room	4244	2019-2402		pottery		sherds		14/04/2019	
Roman Room	4244	2019-2403		pottery	lamp	lamp fragment	1	14/04/2019	
Roman Room	4244	2019-2404		glass		diagnostic shards	4	15/04/2019	
Roman Room	4244	2019-2405		metal	copper alloy	copper alloy fragment	1	15/04/2019	0,30gr
Roman Room	4244	2019-2406		shell				15/04/2019	
Roman Room	4244	2019-2407		bone				15/04/2019	
Roman Room	4244	2019-2408		slag		vitrified slag		15/04/2019	100 g
Roman Room	4244	2019-2409		glass		diagnostic shards	1	15/04/2019	
Roman Room	4244	2019-2410		metal	nail	iron nails fragments	9	15/04/2019	5,74gr - 3,19gr - 1,84gr - 1,11gr - 1,41gr - 1,27gr - 1,31gr - 0,96gr - 0,39gr
Under House Room C	4229	2019-2411		slag		iron slag		14/04/2019	300 g
Roman Room	4244	2019-2412		metal	iron	iron fragments	3	15/04/2019	10,58gr - 0,58gr - 0,23gr
Roman Room	4244	2019-2413		stone	rhizoconcretion	Petrified Nile plant		15/04/2019	

Outside Roman Room	4246	2019-2414		pottery		sherds		15/04/2019	
Roman Room	4244	2019-2415		metal	nail	iron nail between amphorae remains in lower room	1	15/04/2019	8,13gr
Roman Room	4244	2019-2416		metal	nail	iron nail between amphorae remains in lower room	1	15/04/2019	2,81gr
Roman Room	4244	2019-2417		metal	nail	iron nail between amphorae remains in lower room	1	15/04/2019	0,63gr
Outside Roman Room	4246	2019-2418		pottery	vessel	mould made bowl with decoration	1	15/04/2019	
Outside Roman Room	4246	2019-2419		bone				15/04/2019	
Outside Roman Room	4246	2019-2420		slag		vitrified glass		15/04/2019	300 g
Outside Roman Room	4246	2019-2421		shell				15/04/2019	
Outside Roman Room	4246	2019-2422		glass		non-diagnostic shards	1	15/04/2019	
Outside Roman Room	4246	2019-2423		metal	nail	iron nails fragments	4	15/04/2019	4,70gr - 2,36gr - 2,47gr - 1,54gr
Roman Room	4244	2019-2424		pottery	lamp	lamp fragment	1	15/04/2019	
Roman Room	4247	2019-2425		metal	nail	iron nail	1	16/04/2019	9,01gr
Roman Room	4247	2019-2426		metal	iron	iron fragments	3	16/04/2019	0,76gr - 0,65gr - 0,50gr
Roman Room	4247	2019-2427		shell				16/04/2019	
Roman Room	4247	2019-2428		bone				16/04/2019	
Roman Room	4247	2019-2429		slag		vitrified glass		16/04/2019	50 g
Roman Room	4247	2019-2430		pottery		sherds		15/04/2019	
Roman Room	4247	2019-2431		stone				16/04/2019	
Roman Room	4247	2019-2432		metal	nail	iron nails fragments	3	16/04/2019	8,3 gr - 4,49 gr - 2,68gr
Foundation Trench of House	4242	2019-2434		metal	nail	iron nail fragments	2	29/04/2019	1,95gr - 1,60gr
Foundation Trench of House	4242	2019-2435		metal	iron	iron fragments	1	29/04/2019	10,04gr
Foundation Trench of House	4242	2019-2436		glass		non-diagnostic shards	3	29/04/2019	
Foundation Trench of House	4242	2019-2437		metal	copper alloy	copper alloy fragment	1	29/04/2019	
Roman Room	4247	2019-2438		bone		bone under slag, near amphorae on top of F.4248.		16/04/2019	
Roman Room	4247	2019-2439		soil	soil sample	burnt soil		16/04/2019	
Roman Room	4248	2019-2440		pottery		sherds		16/04/2019	
Roman Room	4244	2019-2441		soil	sample	pitch from amphora base		15/04/2019	
Roman Room	4247	2019-2442		slag		slag on top of F4248 (vitrified glass)	1 bag	16/04/2019	5.3 kg
Roman Room	4248	2019-2443		soil	soil sample	soil sample (hearth)		17/04/2019	
Roman Room	4248	2019-2444		slag		vitrified slag		17/04/2019	16.73 g
Roman Room	4248	2019-2445		shell				17/04/2019	
Roman Room	4248	2019-2446		bone				17/04/2019	
Roman Room	4248	2019-2447		glass		non-diagnostic shards	6	17/04/2019	
Roman Room	4248	2019-2448		stone	marble	marble fragments		17/04/2019	
Roman Room	4251	2019-2449		glass		diagnostic shards	1	18/04/2019	
Roman Room	4251	2019-2450		shell				18/04/2019	
Roman Room	4251	2019-2451		slag		vitrified slag		18/04/2019	20 g

Roman Room	4251	2019-2452		pottery		sherds		18/04/2019	
Roman Room	4237	2019-2453		glass		non-diagnostic shards	1	18/04/2019	
Roman Room	4237	2019-2454		metal	copper alloy	copper alloy fragment	1	18/04/2019	0,88gr
Roman Room	4237	2019-2455		metal	nail	iron nails fragments	4	18/04/2019	3,20 gr - 2,08gr - 0,97gr - 1gr
Roman Room	4248	2019-2456		glass		diagnostic shards	1	17/04/2019	
Roman Room	4248	2019-2457		stone	quartzite	quarzite fragment		17/04/2019	
Roman Room	4236	2019-2458		metal	iron	iron fragments	2	17/04/2019	5,04gr
Roman Room	4237	2019-2459		glass		diagnostic shards	2	18/04/2019	
Outside Roman Room	4252	2019-2460		pottery		sherds		18/04/2019	
Outside Roman Room	4252	2019-2461		metal	nail	iron nail	1	18/04/2019	4,36gr
Outside Roman Room	4252	2019-2462		metal	nail	iron nail	1	18/04/2019	25,62gr
Outside Roman Room	4252	2019-2463		slag		vitrified slag		18/04/2019	550 g
Outside Roman Room	4252	2019-2464		bone				18/04/2019	
Outside Roman Room	4252	2019-2465		glass		non-diagnostic shards	1	18/04/2019	
Outside Roman Room	4252	2019-2466		shell				18/04/2019	
Outside Roman Room	4267	2019-2467		pottery		sherds		18/04/2019	
Outside Roman Room	4267	2019-2468		bead	bone	worked bone, possible bead	1	18/04/2019	
Outside Roman Room	4267	2019-2469		metal	iron	iron fragment	1	18/04/2019	22,03gr
Outside Roman Room	4267	2019-2470		stone	object?	possible object (flat and eroded stone). Scraper?	1	18/04/2019	
Outside Roman Room	4267	2019-2471		glass		non-diagnostic shards	1	18/04/2019	
Outside Roman Room	4267	2019-2472		organic		charred twigs		18/04/2019	
Outside Roman Room	4267	2019-2473		slag		vitrified slag		18/04/2019	2.8 kg
Outside Roman Room	4267	2019-2474		bone				18/04/2019	
Outside Roman Room	4267	2019-2475		stone	limestone	limestone fragment		18/04/2019	
Outside Roman Room	4267	2019-2476		slag	iron	iron slag		18/04/2019	620 g
Roman Room	4256	2019-2477		pottery		sherds		20/04/2019	
Roman Room	4256	2019-2478		bone				20/04/2019	
Roman Room	4256	2019-2479		shell				20/04/2019	
Roman Room	4262	2019-2480		glass		non-diagnostic shards	1	20/04/2019	
Roman Room	4262	2019-2481		pottery		sherds		20/04/2019	
Roman Room	4258	2019-2482		shell				20/04/2019	
Roman Room	4258	2019-2483		bone				20/04/2019	
Roman Room	4258	2019-2484		pottery		sherds		20/04/2019	
Roman Room	4264	2019-2485		pottery		sherds		20/04/2019	
Roman Room	4264	2019-2486		stone	marble	marble fragments		20/04/2019	
Roman Room	4264	2019-2487		bone				20/04/2019	
Roman Room	4264	2019-2488		glass		non-diagnostic shards	few?	20/04/2019	
Roman Room	4260	2019-2489		pottery		sherds		20/04/2019	
Roman Room	4260	2019-2490		stone	marble	marble slab fragment	1	20/04/2019	
Roman Room	4266	2019-2491		pottery		sherds		20/04/2019	
Roman Room	4266	2019-2492		shell				20/04/2019	

Roman Room	4266	2019-2493		pottery	lamp	lamp fragment	1	20/04/2019	
Roman Room	4256	2019-2495		metal	nail	iron nail fragment inside amphorae (pit A)	1	20/04/2019	9,62gr
Outside Roman Room	4269	2019-2496		pottery		sherds		21/04/2019	
Outside Roman Room	4269	2019-2497		bone				21/04/2019	
Outside Roman Room	4269	2019-2498		slag		vitrified slag		21/04/2019	300 g
Outside Roman Room	4269	2019-2499		metal	nail	iron nail fragment	1	21/04/2019	16,20gr
Outside Roman Room	4269	2019-2500		shell				21/04/2019	
Outside Roman Room	4269	2019-2501		glass		non-diagnostic shards	4	21/04/2019	
Outside Roman Room	4269	2019-2502		metal	copper alloy	copper alloy fragment	1	21/04/2019	0,45gr
Outside Roman Room	4270	2019-2503		pottery		sherds		21/04/2019	
Outside Roman Room	4270	2019-2504		bone				21/04/2019	
Outside Roman Room	4270	2019-2505		slag		vitrified slag		21/04/2019	50 g
Outside Roman Room	4272	2019-2506		bone		animal bone (5 vertebras)		21/04/2019	
Outside Roman Room	4272	2019-2507		pottery		sherds		21/04/2019	
Outside Roman Room	4267	2019-2508		metal	ring	iron ring fragment (?)	1	21/04/2019	15,38gr
Roman Room	4253	2019-2509		pottery		sherds		21/04/2019	
House Room C	4225	2019-2510		pottery	lamp	lamp fragment	1	21/04/2019	
Roman Room	4253	2019-2511		metal	nail	iron nail fragment	1	22/04/2019	0,40gr
Roman Room	4253	2019-2512		bone				22/04/2019	
Outside Roman Room	4235	2019-2513		glass		non-diagnostic shards	few?	22/04/2019	
Outside Roman Room	4235	2019-2514		glass		diagnostic shards	few?	22/04/2019	
Outside Roman Room	4277	2019-2515		pottery		sherds		22/04/2019	
Outside Roman Room	4273	2019-2516		glass		non-diagnostic shards	8	24/04/2019	
Outside Roman Room	4273	2019-2517		bone				24/04/2019	
Roman Room	4254	2019-2518		stone	marble	marble slab fragments	18	23/04/2019	
Outside Roman Room	4286	2019-2519		bone				24/04/2019	
Roman Room	4278	2019-2520		metal	ring	iron ring (bezel 1,5 cm x 2,1 cm)	1	23/04/2019	
Roman Room	4278	2019-2521		metal	ring	copper alloy ring (bezel 0,85 cm x 0,6 cm)	1	23/04/2019	
Outside Roman Room	4277	2019-2522		shell				22/04/2019	
Roman Room	4279	2019-2523		pottery		sherds		23/04/2019	
Roman Room	4279	2019-2524		metal	earring?	piece of jewelry (earring?) copper alloy	1	23/04/2019	
Roman Room	4279	2019-2525		bone				23/04/2019	
Roman Room	4279	2019-2526		shell				23/04/2019	
Outside Roman Room	4275	2019-2527		slag				23/04/2019	40 g
Outside Roman Room	4275	2019-2528		glass		non-diagnostic shards	3	23/04/2019	
Roman Room	4281	2019-2529		pottery		sherds		23/04/2019	
Roman Room	4281	2019-2530		stone	marble	marble slab fragments	2	23/04/2019	
Roman Room	4283	2019-2531		pottery		sherds		23/04/2019	
Roman Room	4283	2019-2532		stone	marble	marble slab fragment	1	23/04/2019	
Roman Room	4283	2019-2533		bone				23/04/2019	

Roman Room	4283	2019-2534		shell				23/04/2019	
Outside Roman Room	4284	2019-2535		bone		animal skeleton (dog)		23/04/2019	
Outside Roman Room	4273	2019-2537		shell				24/04/2019	
Outside Roman Room	4273	2019-2538		slag		vitrified slag		24/04/2019	50 g
Outside Roman Room	4273	2019-2539		metal	nail	iron nail fragment	1	24/04/2019	1,81gr
Outside Roman Room	4273	2019-2540		pottery		sherds		23/04/2019	
Outside Roman Room	4272	2019-2541		pottery	lamp	lamp fragment	1	23/04/2019	
Outside Roman Room	4286	2019-2542		metal	nail	iron nail fragment	1	24/04/2019	17,38gr
Outside Roman Room	4286	2019-2543		pottery	lamp	lamp fragment	1	24/04/2019	
Outside Roman Room	4286	2019-2544		pottery		sherds		24/04/2019	
Outside Roman Room	4286	2019-2545		shell				24/04/2019	
Outside Roman Room	4286	2019-2546		glass		non-diagnostic shards	3	24/04/2019	
Outside Roman Room	4286	2019-2547		glass		diagnostic shards	6	24/04/2019	
Outside Roman Room	4286	2019-2548		pottery	lamp	lamp fragment	1	24/04/2019	
Outside Roman Room	4288	2019-2549		pottery		sherds		24/04/2019	
Outside Roman Room	4288	2019-2550		bone				24/04/2019	
Outside Roman Room	4288	2019-2551		shell				24/04/2019	
Outside Roman Room	4288	2019-2552		slag		vitrified slag		24/04/2019	200 g
Outside Roman Room	4288	2019-2553		faience		faience fragment	1	24/04/2019	
Outside Roman Room	4288	2019-2554		glass		non-diagnostic shards	10	24/04/2019	
Foundation Trench of House	4242	2019-2555		pottery	lamp	lamp fragment	1	29/04/2019	
Roman Room	4285	2019-2557		pottery		sherds		25/04/2019	
Roman Room	4285	2019-2558		faience		faience fragment	53	25/04/2019	
Roman Room	4285	2019-2559		bone				25/04/2019	
Roman Room	4285	2019-2560		pottery	lamp	lamp fragment	1	25/04/2019	
Roman Room	4285	2019-2561		shell				25/04/2019	
Roman Room	4285	2019-2562		bone	ring	ring / tool? - from the sieve	1	25/04/2019	
Roman Room	4285	2019-2563		metal	nail	iron nail	1	25/04/2019	14,93gr
Roman Room	4285	2019-2564		metal	coin	copper alloy coin	2	25/04/2019	10,87gr
Roman Room	4285	2019-2565		metal	nail	iron nail fragments	1	25/04/2019	9,58gr - 3,03gr
Roman Room	4285	2019-2566		slag				25/04/2019	240 g
Roman Room	4285	2019-2567		plaster	painted	painted fragments	2	25/04/2019	
Roman Room	4285	2019-2568		glass		non-diagnostic shards	1	25/04/2019	
Roman Room	4266	2019-2569		pottery	lamp	lamp fragment	1	25/04/2019	
Roman Room	4266	2019-2570		bone				25/04/2019	
Roman Room	4293	2019-2570		pottery		sherds		25/04/2019	
Outside Roman Room	4289	2019-2571		pottery		sherds		25/04/2019	
Outside Roman Room	4289	2019-2572		bone				25/04/2019	
Outside Roman Room	4289	2019-2573		metal	nail	iron nail head	1	25/04/2019	3,49gr
Outside Roman Room	4289	2019-2574		metal	copper alloy	copper alloy fragment	1	25/04/2019	0,36gr
Outside Roman Room	4289	2019-2575		bone	hairpin	possible hairpin from the sieve	2	25/04/2019	

Outside Roman Room	4289	2019-2576		bone	hairpin	possible hairpin from the sieve		25/04/2019	
Outside Roman Room	4289	2019-2577		slag				25/04/2019	50 g
Outside Roman Room	4289	2019-2578		shell				25/04/2019	
Roman Room	4293	2019-2580		slag				25/04/2019	40 g
Roman Room	4293	2019-2581		plaster	painted	painted fragments	2	25/04/2019	
Outside Roman Room	4289	2019-2582		faience		faience fragments	3	25/04/2019	
Outside Roman Room	4289	2019-2583		pottery		sticks?	4	25/04/2019	
Roman Room	4291	2019-2584		pottery		sherds		27/04/2019	
Roman Room	4291	2019-2585		bone				27/04/2019	
Roman Room	4291	2019-2586		shell				27/04/2019	
Roman Room	4291	2019-2587		faience		faience fragment	1	27/04/2019	
Roman Room	4295	2019-2588		pottery		sherds		27/04/2019	
Roman Room	4295	2019-2589		bone				27/04/2019	
Roman Room	4290	2019-2590		metal	coin	copper alloy coin	1	27/04/2019	
Roman Room	4290	2019-2591		metal	coin	copper alloy coin	1	27/04/2019	
Roman Room	4290	2019-2592		pottery		sherds		27/04/2019	
Roman Room	4290	2019-2593		bone				27/04/2019	
Roman Room	4290	2019-2594		shell				27/04/2019	
Roman Room	4290	2019-2595		slag		vitrified slag		27/04/2019	150 g
Roman Room	4290	2019-2596		metal	nail	iron nail fragment (?)	1	27/04/2019	1,22gr
Outside Roman Room	4294	2019-2597		pottery		sherds		27/04/2019	
Outside Roman Room	4294	2019-2598		bone				28/04/2019	
Outside Roman Room	4294	2019-2599		shell				28/04/2019	
Outside Roman Room	4294	2019-2600		metal	copper alloy	copper alloy fragment	1	28/04/2019	
Outside Roman Room	4294	2019-2601		pottery		pottery stick?		28/04/2019	
Roman Room	4266	2019-2602		metal	nail	iron nail fragments	2	27/04/2019	1,68gr - 1,07gr
Roman Room	4298	2019-2603		pottery		sherds		28/04/2019	
Roman Room	4298	2019-2604		stone		worked fragment		28/04/2019	
Roman Room	4298	2019-2605		metal	copper alloy	copper alloy fragment	1	28/04/2019	
Roman Room	4298	2019-2606		bone				28/04/2019	
Roman Room	4298	2019-2607		shell				28/04/2019	
Roman Room	4298	2019-2608		slag				28/04/2019	100 g
Roman Room	4298	2019-2609		glass		non-diagnostic shards	few?	28/04/2019	
Roman Room	4298	2019-2610		metal	nail	iron nail	1	28/04/2019	13gr
Roman Room	4298	2019-2611		metal	nail	iron nail fragments	2	28/04/2019	2,89gr - 1,35gr
Roman Room	4299	2019-2612		metal	coin	copper alloy coin	1	29/04/2019	
Roman Room	4299	2019-2613		metal	coin	copper alloy coin	1	29/04/2019	
Roman Room	4299	2019-2614		bone				29/04/2019	
Roman Room	4299	2019-2615		slag		vitrified slag		29/04/2019	575 g
Roman Room	4299	2019-2616		shell				29/04/2019	
Roman Room	4299	2019-2617		pottery		sherds		28/04/2019	
Outside Roman Room	4300	2019-2618		organic	soil sample	wood (?)		29/04/2019	
Outside Roman Room	4301	2019-2619		shell				29/04/2019	

Outside Roman Room	4300	2019-2620		pottery		sherds		29/04/2019	
Outside Roman Room	4300	2019-2621		bone				29/04/2019	
Outside Roman Room	4301	2019-2622		bone				29/04/2019	
Roman Room	4299	2019-2623		faience		faience fragment	1	29/04/2019	
Outside Roman Room	4301	2019-2624		pottery		sherds		29/04/2019	
House Room C	4227	2019-2625		metal	coin	copper alloy coin	1	29/04/2019	
Foundation Trench of House	4242	2019-2626		glass		diagnostic shards	1	29/04/2019	
Glass Kiln	4305	2019-2627		pottery		sherds		30/04/2019	
Glass Kiln	4305	2019-2628		bone				30/04/2019	
Glass Kiln	4306	2019-2629		bone				30/04/2019	
Glass Kiln	4306	2019-2630		organic		charred twigs		30/04/2019	
Glass Kiln	4306	2019-2631		glass		non-diagnostic shards	1	30/04/2019	
Glass Kiln	4306	2019-2632		pottery		sherds		30/04/2019	
Glass Kiln	4307	2019-2633		pottery		sherds		30/04/2019	
Glass Kiln	4307	2019-2634		bone				30/04/2019	
Glass Kiln	4307	2019-2635		organic		charred twigs		30/04/2019	
Glass Kiln	4308	2019-2636		organic		charred twigs		30/04/2019	
Glass Kiln	4308	2019-2637		glass	bracelet	fragment of glass bracelet	1	30/04/2019	0,66gr
Glass Kiln	4308	2019-2638		slag		vitrified slag		30/04/2019	
Glass Kiln	4309	2019-2639		pottery		sherds		30/04/2019	
Glass Kiln	4310	2019-2641		pottery		sherds		01/05/2019	
Glass Kiln	4312	2019-2642		pottery		sherds		01/05/2019	
Glass Kiln	4313	2019-2643		pottery		sherds		01/05/2019	
Glass Kiln	4313	2019-2644		slag		very small fragment of vitrified slag	1 fragment	01/05/2019	
Glass Kiln	4311	2019-2645		pottery		sherds		01/05/2019	
Glass Kiln	4311	2019-2646		metal	copper alloy	copper alloy fragment	1	01/05/2019	0,97gr
Glass Kiln	4311	2019-2647		shell				01/05/2019	
Glass Kiln	4311	2019-2648		bone				01/05/2019	
Glass Kiln	4315	2019-2649		glass	bracelet	fragment of glass bracelet	1	02/05/2019	1,20gr
Glass Kiln	4315	2019-2650		glass		diagnostic glass	few?	02/05/2019	
Glass Kiln	4315	2019-2651		glass		non-diagnostic shards	few?	02/05/2019	
Glass Kiln	4315	2019-2652		pottery		sherds		02/05/2019	
Glass Kiln	4315	2019-2653		bone				02/05/2019	
Glass Kiln	4313	2019-2654		bone				02/05/2019	
Roman Room	4253	2019-2656		pottery	lamp	lamp fragments	2	07/09/2019	
House Room C	4228	2019-2657		pottery		decorated fragment (hair?)	1	18/09/2019	
House Room C	4228	2019-2658		pottery	lamp	fragments of different lamps	3	22/09/2019	
House Room B	4022		KAP 1309	pottery	lamp	Egyptian mould-made lamp, fragment	1		
House Room B	4022		KAP 1310	pottery	lamp	Egyptian? mould-made lamp type Loeshcke I, fragment	1		
House Room A	4065		KAP 1307	pottery	lamp	Imported mould made lamp type Loeshcke V?, fragment	1		

House Room A	4065		KAP 1308	pottery	lamp	Egyptian mould-made lamp, fragment	1		
Northwestern corner	4095		KAP 1311	pottery	lamp	Egyptian mould-made lamp, fragment	1		
	n/a			glass	bracelet	fragment of glass bracelet, sporadic find from the backfill	1	30/04/2019	

Table 44 The list of artefacts collected from Kom al-Ahmer Unit 4 —during the 2014-2019 excavation seasons— whose in situ position was recorded.

ID	E	N	Z	KAO	Category	Type	Description	Items	Weight
4.4000.044	256630.463	3450299.117	6.219	/	Metal		Copper alloy fragment	1	
4.4000.048	256629.325	3450298.985	6.240	KAO	Metal	Coin	Half bronze coin	1	0,15 g
4.4000.1303	256620.121	3450319.055	5.008	KAO 178	Metal	Bell	Bell: almost complete. Is is perforated at the top for suspension, and the pendulum is missing.	1	56.74 g
4.4001.116	256616.658	3450304.141	5.811	KAO	Metal		Copper alloy fragment	1	
4.4001.119	256617.722	3450305.909	5.746	KAO 4	Bone	Hairpin	Upper portion of a hairpin; the shaft expands into a right hand whose fingers hold a spherical object, perhaps a globe, fruit, or an egg. The lower portion is missing.	2	
4.4002.083	256698.215	3450277.634	3.896		Pottery				
4.4002.084	256646.401	3450269.975	7.660		Metal	Iron	Nails	9	
4.4002.085	256644.320	3450287.677	6.810		Metal	Copper alloy	Fragments		
4.4002.086	256674.897	3450273.784	6.215		Bone		Large and small fragments	102	
4.4002.087	256730.959	3450367.180	2.780		Glass		Shards	30	
4.4002.094	256622.309	3450292.600	6.270		Metal	Copper alloy	Small object	2	
4.4002.108	256625.994	3450291.196	6.491		Metal	Copper alloy	Fragment	1	
4.4002.332	256623.087	3450291.764	6.259		Pottery	Jar		1	
4.4008.180	256616.436	3450298.085	5.796		Bone				
4.4008.181	256614.297	3450299.869	5.689		Pottery				
4.4008.183	256625.764	3450302.419	6.009		Metal	Object	Copper alloy object	1	
4.4008.199	256634.033	3450296.674	6.278	KAO 95	Stone	Pestle	Round pestle	1	
4.4008.202	256626.538	3450297.785	6.285	KAO 96	Stone	Grinder	Part of a grinder	1	
4.4008.203	256626.074	3450298.566	6.207		Flora	Grains	Rice?		
4.4011.233	256631.727	3450295.104	6.261		Metal	Object	Triangular copper alloy object	1	
4.4011.249	256630.262	3450301.111	5.989	KAO 20	Bone	Fitting	Fragment of a fitting with a carved segment; flat on the back.	1	
4.4011.257	256633.130	3450299.123	6.041	KAO 6	Bone	Hairpin	Six fine, parallel incisions decorate the top, separating the upper portion from the remainder of the shaft. Some traces of black spots on the surface.	1	
4.4011.258	256632.480	3450296.058	6.249	KAO 97	Stone	Pestle		1	
4.4011.260	256631.009	3450295.602	6.253	KAO 98	Stone	Pestle		1	
4.4011.264	256632.101	3450295.670	6.210		Metal		Copper alloy fragment	1	

4.4012.569	256626.146	3450296.060	6.275	KAO 40	Stone	Amulet	Large Nefertem amulet (painted limestone)	1	
4.4013.680	256626.205	3450297.743	6.109	KAO 114	Stone	Grinder	Fragment of a grinding stone	1	4.260 kg
4.4014.290	256621.069	3450298.394	5.931		Metal	Coin	Fragment of bronze coin	1	0,33 g
4.4014.297	256626.966	3450291.081	6.489		Metal		Copper alloy fragment	1	
4.4014.305	256620.258	3450300.064	5.868	KAO 45	Faience		Fragments of faience with a light blue glaze	16	
4.4016.322	256620.376	3450292.187	5.995	KAO 46	Faience		Fragments of faience with a light blue glaze	2	
4.4016.337	256623.778	3450291.532	6.074		Metal	Coin	Fragments	3	
4.4017.343	256617.839	3450300.996	5.809	KAO 101	Stone	Sandstone?	Worked fragment	1	
4.4017.366	256619.440	3450300.529	5.849		Glass		Diagnostic and non-diagnostic shards	61	
4.4017.387	256619.819	3450300.742	5.870	KAO 187	Metal		Copper alloy fragments	3	
4.4018.405	256619.859	3450299.691	5.746	KAO 39	Egyptian blue frit	Amulet	Amulet of Harpokrates or Horus the chilt (incomplete)	1	
4.4018.419	256619.686	3450299.790	5.763		Metal	Object	Fragment of copper alloy object	1	
4.4018.437	256621.724	3450298.577	5.829	KAO 47	Faience		Fragment of faience with a light blue glaze	1	
4.4018.450	256621.064	3450295.401	5.895		Stone	Pestle		1	
4.4019.473	256619.806	3450297.457	5.794		Metal		Copper alloy fragment	1	
4.4019.474	256619.477	3450297.612	5.779	KAO 35	Bone	Ivory	Semi-circular object with a small hollow in the centre; flat on the other side	1	
4.4019.478	256619.236	3450298.516	5.725		Metal	Coin?	Copper alloy fragments	2	
4.4020.519	256619.045	3450298.266	5.719	KAO 19	Bone	Hairpin	Fragment of the upper portion of a hairpin	1	
4.4020.532	256621.807	3450295.819	5.699		Stone	Pestle	Granite?	1	
4.4020.539	256625.407	3450293.376	5.897		Metal		Copper alloy fragments of object	5	
4.4020.545	256624.558	3450291.250	5.866		Metal		Coper alloy object	1	
4.4021.568	256618.696	3450302.911	5.694		Stone	Marble	Fragment of marble slab	1	
4.4021.570	256617.081	3450301.572	5.834		Pottery		Small pot	1	
4.4021.571	256617.454	3450301.472	5.679		Stone		Worked stone	1	
4.4027.1088	256631.036	3450303.142	5.259		Bone	Hairpin	Two fragments	2	1.14 g
4.4061.754	256621.636	3450300.453	5.930		Metal	Ring	Copper alloy chain ring?		
4.4071.727	256620.627	3450298.347	5.121		Pottery		Base with organic material	1	
4.4071.736	256621.724	3450297.209	5.167		Metal	Ring	Copper alloy ring fragments	2	
4.4071.737	256620.035	3450297.545	4.978	KAO 8	Bone	Hairpin	Fragment of hairpin. The tip comes to a blunt point and the upper portion is missing.	1	
4.4073.937	256620.626	3450298.079	4.42	KAO 41	Faience	Statuette	Corner fragment of a statuette in faience with a light blue glaze. Only a human left foot and the plinth on which it is standing remains	1	
4.4081.1177	256621.276	3450298.47	3.818	KAO 25	Bone	Inlay	Worked fragment, possibly an inlay for furniture. The fragment is conically shaped, with a carved border on the	1	3 g

							inner concave side.		
4.4081.1178	256621.369	3450298.027	4.077	KAO 169	Metal	Ring	Copper alloy ring, undecorated and complete	1	0.12 g
4.4081.796	256619.901	3450298.842	3.975		Metal		Copper alloy fragment of object	1	
4.4084.810	256618.723	3450307.761	5.625		Metal	Ring	Fragment of copper alloy ring	1	0.8 g
4.4084.820	256618.158	3450311.659	5.493	KAO 13	Bone	Hairpin	Worked fragment, possibly a hairpin; no surviving decoration	1	
4.4084.822	256618.389	3450311.727	5.488	KAO 170	Metal	Ring	Undecorated, complete	1	
4.4084.839	256622.416	3450311.175	5.549	KAO 26	Bone	Inlay	Worked fragment, possibly an inlay for furniture. The fragment has decorative vertical stripes on the outer side.	1	
4.4084.868	256621.768	3450308.932	5.525		Glass	Bracelet	Fragment of glass bracelet	1	5 g
4.4084.871	256622.432	3450309.155	5.602		Metal	Ring	Fragmented copper alloy ring	2	0.6 g
4.4087.893	256616.679	3450312.845	5.315		Metal	Ring	Copper alloy ring fragment	1	
4.4090.910	256622.439	3450311.02	5.456		Glass		Base	1	
4.4092.978	256621.52	3450315.118	5.17		Faience	Bead	Broken in two pieces	2	0.2 g
4.4094.1323	256618.553	3450316.444	5.012	KAO 178	Metal	Bell	Bell; fragmented. It has a suspension loop at the top, and two pairs of parallel lines incised around the body. The pendulum is preserved inside		2.09 g
4.4094.1329	256617.429	3450315.074	5.06	KAO 223	Metal	Nails	Copper alloy nails	2	
4.4094.983	256619.221	3450314.344	5.06	KAO 38	Faience	Figurine	Fragment of the right hand of a figurine in faience with a light blue glaze	1	
4.4095.1018	256610.395	3450309.246	5.349	KAO 10	Bone	Hairpin	Three fragments (two of them joining) of a bone hairpin. The head of the pin terminates in a plain sphere while the bottom of the pin comes to a point.	2 of 3	
4.4095.1023	256611.063	3450309.473	5.273	KAO 10	Bone	Hairpin	Third fragment of KAO 10	1 of 3	
4.4095.1026	256609.751	3450309.979	5.245	KAO 290	Metal	Iron blade	Fragment of a blade	1	1.4 g
4.4095.994	256611.057	3450304.613	5.447	KAO 9	Bone	Hairpin	Fragment of the upper portion of a hairpin. The head terminates in a plain sphere and is flat on one side. The lower portion is missing.	1	
4.4096.1137	256610.271	3450310	5.084		Glass	Bead	Half Glass Bead	1	0.3 g
4.4097.1101	256611.519	3450310.575	4.936	KAO 11	Bone	Hairpin	Fragment of a hairpin, undecorated	1	0.37 g
4.4097.1112	256611.622	3450310.692	4.926	KAO 14	Bone	Hairpin	Fragment of the upper portion of a hairpin	1	2 g

4.4100.1197	256621.921	3450298.001	3.532	KAO 66	Stone (Calcarenite?)	Bead	Slightly irregular spheroidal bead with a single perforation	1	1.8 g
4.4101.1212	256620.646	3450297.809	3.282		Glass	Bead	White glass	1	
4.4110.1231	256618.414	3450304.217	5.629		Glass	Bracelet	Bracelet Fragment (Glass)	1	3.6 g
4.4110.1241	256620.867	3450306.983	5.567	KAO 173	Metal	Ring	Fragments of a ring, undecorated	3	1.8 g
4.4110.1269	256612.622	3450302.652	5.498	KAO 17	Bone	Hairpin	Fragment of a hairpin, broken into two pieces, undecorated	2	1.2 g
4.4110.1273	256626.455	3450307.509	5.618	KAO 18	Bone	Hairpin	Fragment of a hairpin, undecorated	1	1.7 g
4.4110.1277	256628.279	3450308.929	5.406	KAO 207	Metal	Object	Fragment	1	1g
4.4110.1283	256626.928	3450306.913	5.601	KAO 27	Bone	Inlay	Worked fragment, possibly an inlay for furniture. The fragment has decorative vertical stripes on the outer side.	1	5.1 g
4.4110.1294	256624.566	3450306.252	5.665	KAO 30	Bone	Object	Slightly circular worked fragment	1	
4.4124.1390	256624.086	3450304.36	5.673			Bead		1	
4.4124.1401	256621.741	3450303.312	5.58	KAO 213	Metal	Object	Long and flat rectangular object	1	4.36 g
4.4126SL001.1464	256628.487	3450293.531	6.067		Metal	Object	Copper alloy object	1	
4.4126SL002.1479	256627.019	3450292.912	5.857		Bone	Object	Worked bone	1	
4.4126SL002.1482	256627.27	3450293.004	5.837	KAO 65	Faience	Bead	Thin disc bead, circular in cross-section with a single perforation.	1	0.27 g
4.4126SL003.1505	256631.673	3450294.283	5.51	KAO 32	Bone	Object	Circular object	1	
4.4126SL003.1507	256633.83	3450295.525	5.617	KAO 220	Metal	Object	Copper alloy fragments	6	
4.4126SL003.1586	256624.289	3450298.835	5.428		Metal	Weight	Copper alloy weight	1	0.043 g
4.4126SL004.1527	256627.907	3450305.477	5.535	KAO 5	Bone	Hairpin	Head of a hairpin with a carved decorative line	1	
4.4126SL006.1608	256624.903	3450297.392	5.267	KAO 36	Terracotta	Object	Fragment	1	
4.4126SL006.1610	256624.311	3450300.34	5.102	KAO 286	Metal	Nail	Fragment of an iron nail	1	
4.4127.1858	256628.64	3450294.536	6.176		Glass	Bracelet	Fragment of glass bracelet	1	
4.4127.1863	256629.001	3450294.786	6.143		Glass	Pendant	Fragment of glass pendant	1	
4.4128.1445	256631.601	3450293.428	6.234	KAO 15	Bone	Hairpin	Fragment of a hairpin	1	
4.4129.1831	256628.628	3450297.727	6.013		Bone	Hairpin	Fragment of a hairpin	1	
4.4131.1448	256634.387	3450296.036	6.101		Glass	Bracelet	Glass bracelet fragment	1	
4.4131.1449	256634.268	3450296.231	6.12		Metal	Object	Copper alloy object	1	
4.4132.1871	256629.677	3450294.904	6		Metal	Object	Fragment of copper alloy object	1	
4.4137.1925	256630.335	3450299.362	5.771		Shell	Jewelry	Cowry shell	1	
4.4155.2013	256621.235	3450293.705	5.509		Metal	Object	Fragment of copper alloy object	1	3.09 g
4.4155.2016	256620.773	3450293.937	5.483		Glass	Bracelet	Fragment of glass bracelet	1	3.95 g
4.4155.2018	256623.133	3450293.228	5.703		Glass	Bracelet	Fragment of glass bracelet	1	1.83 g
4.4155.2020	256620.762	3450291.905	5.588		Metal	Object	Fragment of copper alloy object	1	2.24 g
4.4156.1707	256620.078	3450290.601	6.078		Glass	Bracelet	Fragment of glass bracelet	1	4.09 g
4.4160.1797	256622.799	3450290.658	5.423		Bone	Hairpin	Fragment of hairpin	1	
4.4175.1817	256626.267	3450291.173	5.284		Stone	Marble	Fragment of marble slab	1	

4.4175.1819	256626.156	3450290.812	5.281		Glass	Bracelet	Fragment of glass bracelet	1	3.72 g
4.4178.1846	256628.793	3450298.459	5.942		Metal	Nail	Iron nail	1	10.59 g
4.4179.1868	256628.411	3450294.538	6.039		Glass	Base	Base of glass vessel	1	
4.4182.1876	256627.659	3450296.785	5.808		Metal	Ring	Fragment of iron tool ring	3	10.19 gr
4.4187.1900	256628.755	3450294.347	5.962		Glass	Bracelet	Fragment of glass bracelet	1	2.96 g
4.4189.1903	256630.375	3450295.903	6.073		Bone	Hairpin	Fragment of hairpin	1	
4.4191.1972	256630.169	3450297.553	5.853		Bone	Hairpin	Fragment of hairpin	1	
4.4191.1975	256628.726	3450297.153	5.728		Bone	Object	Fragment of worked bone	1	
4.4191.1977	256629.583	3450296.432	5.841		Metal	Nail	Iron nail	1	2.68 g
4.4191.1983	256629.465	3450295.912	5.742		Bone	Hairpin	Fragment of hairpin	1	
4.4193.1949	256629.927	3450295.898	5.995		Metal		Fragments of copper alloy	3	6.63 g
4.4196.1991	256627.971	3450295.725	5.678		Glass	Bracelet	Glass bracelet fragment	1	3.55 g
4.4208.2054	256626.268	3450302.074	5.754		Bone	Hairpin	Fragments of hairpin	2	
4.4208.2061	256626.131	3450302.077	5.749		Glass	Bracelet	Fragment of glass bracelet	1	2.71 g
4.4212.2077	256627.51	3450304.89	5.378		Shell	Object	Large shell	1	
4.4212.2083	256628.502	3450303.544	5.611		Metal	Nail	Iron nail	1	1.66 g
4.4212.2086	256627.561	3450304.298	5.486		Metal	Needle	Copper alloy netting needle	1	
4.4215.2096	256625.033	3450302.059	5.812		Wood or Bone	Pendant	Wood or burnt bone pendant	1	1.03 g
4.4215.2103	256624.659	3450301.922	5.739		Metal	Nail	Iron nail	1	3.60 g
4.4219.2132	256624.396	3450300.895	5.436		Metal	Nail	Iron nail	1	7.07 g
4.4219.2133	256624.59	3450300.957	5.44		Metal	Nail	Iron nail	1	8.44 g
4.4220.2364	256622.485	3450301.002	4.575		Metal	Nail	Iron nail	1	6.66 g
4.4224.2206	256623.067	3450298.429	5.323		Metal	Nail	Iron nail	1	13.28 g
4.4225.2222	256624.146	3450296.865	5.103		Metal	Object	Fragment of copper alloy object	1	6.10 g
4.4225.2226	256623.23	3450299.438	4.774		Metal	Nail	Fragmented iron nail	2	12.70 g
4.4225.2232	256623.511	3450299.582	4.87		Stone	Marble	Fragment of pavonazzetto (?) marble slab	1	2.2 kg
4.4225.2233	256623.383	3450300.007	4.845		Stone	Limestone	Worked fragment lying over floor 4220	1	2.05 kg
4.4225.2234	256623.331	3450300.192	4.837		Stone	Limestone	Worked fragment lying over floor 4220	1	2.4 kg
4.4226.2366	256623.568	3450299.25	4.614		Metal	Object	Copper alloy fragment with loop	1	0.27 g
4.4228.2273	256625.263	3450297.374	4.625		Metal	Nail	Iron nail over layer F4229	1	
4.4228.2378	256624.89	3450301.082	4.306		Metal	Nail	Iron nail	1	15.07 g
4.4228.2379	256623.995	3450298.657	4.408		Faience	Cup	Remains of cup base	1	
4.4228.2380	256624.783	3450301.12	4.31		Bone		Bone over layer F4229	1	
4.4228.2381	256623.828	3450299.016	4.415		Metal	Nail	Iron nail	1	6.25 g
4.4228.2382	256624.909	3450300.87	4.298		Glass	Rim	Glass rim over layer F4229	1	
4.4229.2396	256623.278	3450298.494	4.258		Stone	Limestone	Decoration	1	0.47 g
4.4229.2398	256624.169	3450300.663	4.344		Metal	Nail	Iron nail	1	4.90 g
4.4234.2314	256626.025	3450298.162	3.852		Metal	Blade	Iron blade (three pieces) over layer 4236	3	90.17 g
4.4235.2334	3450297.153	256624.885	4.034		Metal	Object	Thin bronze fragment of a vaguely quadrangular shape	1	
4.4244.2415	256624.705	3450301.538	4.224		Metal	Nail	Iron nail between amphorae remains in lower room	1	8.13 g
4.4244.2416	256624.463	3450301.257	4.205		Metal	Nail	Iron nail between amphorae remains in lower room	1	2.81 g

4.4244.2417	256624.323	3450301.217	4.188		Metal	Nail	Iron nail between amphorae remains in lower room	1	0.63 g
4.4247.2425	256624.238	3450301.194	3.973		Metal	Nail	Iron nail	1	9.01 g
4.4252.2461	256624.111	3450297.9	4.294		Metal	Nail	Iron nail	1	4.36 g
4.4252.2462	256624.367	3450298.218	4.336		Metal	Nail	Iron nail	1	25.62 g
4.4253.2511	256625.997	3450298.779	3.689		Metal	Nail	Fragment of iron nail	1	0.40 gr
4.4267.2468	256623.188	3450299.03	4.034		Bone	Bead	Possible bead, fragmented, incomplete	2	
4.4267.2469	256623.217	3450298.959	4.084		Metal	Object	Possible iron object	1	22.03 g
4.4278.2520	256625.75	3450298.606	3.663		Metal	Ring	Iron ring (bezel 1,5 cm x 2,1 cm)	1	
4.4278.2521	256625.73	3450298.576	3.663		Metal	Ring	Part of copper alloy ring (bezel 0,85 cm x 0,6 cm)	1	
4.4279.2524	256624.868	3450300.758	3.699		Metal	Earring	Piece of copper alloy jewelry (earring?)	1	
4.4285.2563	256625.691	3450298.307	3.478		Metal	Nail	Iron nail	1	14.93 g
4.4286.2542	256624.342	3450298.068	3.786		Metal	Nail	Iron nail	1	17.38 g
4.4286.2543	256624.264	3450298.133	3.768		Pottery	Lamp	Fragment of lamp	1	
4.4298.2610	256625.024	3450301.526	3.173		Metal	Nail	Iron nail	1	13 g
4.4315.2649	256620.178	3450292.153	5.816		Glass	Bracelet	Fragment of glass bracelet	1	1.20 g

Lists of coins

1034 bronze coins were retrieved from this unit specifically: 832 were registered in situ, 177 from the sieve, 25 were found in the backfill, eight are too oxidised or completely mineralised, and two are small objects in coin form that could have possibly been used as coins. The finds retrieved from seasons 2012-2016 were published by Asolati and Crisafulli (2019: 1–60), whereas those of the 2017 and 2019 seasons are in course of publication. The following tables provide the complete list of coins finds that were retrieved during the excavation seasons between 2014 to 2019. The tables allow to correlate the KAC or bag numbers of the material culture with those mentioned in the text. Table 45includes the coins whose in situ position could be registered; therefore, they include the coordinates data. Table 46 includes the coins collected from the sieve, the backfill, and on the grounds outside Unit 4.

Table 45 List of coin finds that could be registered in situ. The list categories include the context in which they were found, the ID number (indicating the unit, the feature, and the bag number) the UTM-WGS 84 zone 36 N coordinates (E, N, and Z), the catalogue number assigned by the numismatic team (KAC = Kom al-Ahmer Coins), the dating information, the ruler, type of coin, the mint (if known), and eventual additional information.

No.	Context	ID	Easting	Northing	Altitude	Catalogue ID	Dating - Century	Dating - Years	Ruler/Emperor	Type	Mint	Additional Information
78	Surface Layers	4.0000.1210	256628.112	3450293.437	6.274	KAC 74	4th century CE	347-348 CE	Constans / Constantius II (before 348 CE)	follis	uncertain mint	
457	Surface Layers	4.0000.1217	256624.646	3450305.737	5.803	KAC 529	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
610	Surface Layers	4.0000.1218	256625.711	3450307.265	5.734	KAC 228	5th century CE	425-435 CE	Theodosius II / Valentinian III	AE4	uncertain mint (Eastern)	
98	Surface Layers	4.0000.655	256617.578	3450294.829	5.913	KAC 93	4th century CE	350-361 CE	Constantius II (after 348 CE)	AE3		
251	Surface Layers	4.4000.003	256619.206	3450293.100	6.201	KAC 186	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
808	Surface Layers	4.4000.005	256621.638	3450295.139	6.237	KAC 867	5th century CE		Emperor uncertain	AE4	uncertain mint	
200	Surface Layers	4.4000.009	256618.540	3450302.249	6.020	KAC 307	second half of 4th century		Emperor uncertain	AE3	uncertain mint	
325	Surface Layers	4.4000.010	256619.648	3450303.501	5.926	KAC 317	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	
180	Surface Layers	4.4000.011	256619.774	3450303.603	5.919	KAC 268	4th century CE		Emperor uncertain	AE3	uncertain mint	
593	Surface Layers	4.4000.012	256619.417	3450303.600	5.929	KAC 165	4th-5th century CE	395-401 CE	Arcadius / Honorius	AE3	uncertain mint (Eastern)	
800	Surface Layers	4.4000.013	256619.439	3450303.466	5.916	KAC 787	5th century CE		Emperor uncertain	AE4	uncertain mint	
426	Surface Layers	4.4000.014	256620.839	3450306.651	5.874	KAC 475	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
118	Surface Layers	4.4000.016	256622.656	3450307.002	5.885	KAC 130	4th century CE	364-383 CE	Emperor uncertain	AE3		
802	Surface Layers	4.4000.018	256620.945	3450309.683	5.788	KAC 812	5th century CE		Emperor uncertain	AE4	uncertain mint	
126	Surface Layers	4.4000.020	256624.924	3450298.995	6.288	KAC 142	4th century CE	364-388 CE	Emperor uncertain	AE3	uncertain mint	
403	Surface Layers	4.4000.021	256622.999	3450298.074	6.182	KAC 442	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
792	Surface Layers	4.4000.022	256622.840	3450298.205	6.169	KAC 707	5th century CE		Emperor uncertain	AE4	uncertain mint	
177	Surface Layers	4.4000.023	256622.207	3450301.663	6.092	KAC 258	4th century CE		Emperor uncertain	AE3	uncertain mint	
471	Surface Layers	4.4000.024	256623.868	3450302.360	6.112	KAC 546	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
503	Surface Layers	4.4000.026	256622.201	3450300.786	6.095	KAC 596	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
151	Surface Layers	4.4000.027	256622.113	3450301.252	6.077	KAC 163	4th century CE	388-395	Valentian II / Theodosius I / Arcadius / Honorius	AE4	uncertain mint (Eastern)	

803	Surface Layers	4.4000.028	256627.732	3450294.070	6.466	KAC 834	5th century CE		Emperor uncertain	AE4	uncertain mint	
144	Surface Layers	4.4000.029	256630.672	3450296.257	6.361	KAC 136	4th century CE	379-383 CE	Theodosius I	AE3	mint of Constantinople	
253	Surface Layers	4.4000.030	256628.460	3450294.823	6.468	KAC 189	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
92	Surface Layers	4.4000.031	256630.826	3450296.384	6.216	KAC 86	4th century CE	350-361 CE	Constantius II (after 348 CE)	AE3		
96	Surface Layers	4.4000.032	256630.730	3450296.368	6.361	KAC 90	4th century CE	350-361 CE	Constantius II (after 348 CE)	AE3		
360	Surface Layers	4.4000.034	256630.789	3450296.521	6.361	KAC 380	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
345	Surface Layers	4.4000.035	256631.170	3450296.463	6.364	KAC 344	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	
798	Surface Layers	4.4000.036	256631.000	3450296.019	6.346	KAC 763	5th century CE		Emperor uncertain	AE4	uncertain mint	
175	Surface Layers	4.4000.038	256627.155	3450305.940	5.948	KAC 256	4th century CE		Emperor uncertain	AE3	uncertain mint	
421	Surface Layers	4.4000.039	256626.742	3450306.014	5.958	KAC 469	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
209	Surface Layers	4.4000.042	256628.473	3450301.515	6.128	KAC 250	4th century CE		Emperor uncertain	AE3	uncertain mint	
796	Surface Layers	4.4000.043	256632.652	3450301.280	6.108	KAC 746	5th century CE		Emperor uncertain	AE4	uncertain mint	
159	Surface Layers	4.4000.046	256631.495	3450299.858	6.197	KAC 240	4th century CE	first decades	Emperor uncertain	follis	uncertain mint	
88	Surface Layers	4.4000.047	256613.095	3450302.195	5.753	KAC 101	4th century CE	350-361 CE	Constantius II (after 348 CE)	AE3		
335	Surface Layers	4.4000.049	256633.083	3450298.583	6.292	KAC 333	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	
817	Surface Layers	4.4000.052	256619.738	3450304.275	5.901	KAC 939	5th century CE		Emperor uncertain	AE4	uncertain mint	
127	Surface Layers	4.4000.054	256630.262	3450298.207	6.302	KAC 123	4th century CE	365-366 CE	Procopius	AE3		
112	Surface Layers	4.4000.1296	256620.366	3450318.172	5.139	KAC	4th century CE	364-378 CE	Valens	AE3	uncertain mint	
230	Surface Layers	4.4000.1297	256618.962	3450316.956	5.209	KAC	late 4th-early 5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
299	Surface Layers	4.4000.1298	256619.021	3450316.822	5.236	KAC	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
231	Surface Layers	4.4000.1299	256613.761	3450314.211	5.383	KAC	late 4th-early 5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
69	Surface Layers	4.4000.1301	256621.693	3450319.668	5.031	KAC	4th century CE	321-324 CE	Constantine I for Constantine II	follis	mint of Nicomedia	
300	Surface Layers	4.4000.1302	256618.107	3450316.174	5.312	KAC	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
464	Surface Layers	4.4000.765	256622.384	3450314.793	5.479	KAC 536	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
681	Surface Layers	4.4000.767	256618.766	3450312.820	5.650	KAC 786	5th century CE		Emperor uncertain	AE4	uncertain mint	
351	Surface Layers	4.4000.768	256619.826	3450311.570	5.691	KAC 360	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
379	Surface Layers	4.4000.771	256620.396	3450314.630	5.479	KAC 412	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
636	Surface Layers	4.4000.772	256621.222	3450312.739	5.610	KAC 695	first half of 5th century CE		Emperor uncertain	AE4	uncertain mint	
505	Surface Layers	4.4000.773	256620.257	3450311.771	5.653	KAC 599	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
492	Surface Layers	4.4000.784	256612.128	3450309.236	4.540	KAC 578	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
812	Surface Layers	4.4001.057	256620.420	3450302.784	5.871	KAC 911	5th century CE		Emperor uncertain	AE4	uncertain mint	

169	Surface Layers	4.4001.058	256620.524	3450303.145	5.862	KAC 242	4th century CE		Emperor uncertain	AE2	uncertain mint	
63	Surface Layers	4.4001.059	256620.689	3450303.358	5.861	KAC 53	4th century CE	314-315 CE	Licinius I	follis		
375	Surface Layers	4.4001.060	256619.609	3450301.839	5.930	KAC 407	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
214	Surface Layers	4.4001.062	256622.199	3450300.008	6.065	KAC 267	4th century CE		Emperor uncertain	AE3	uncertain mint	
793	Surface Layers	4.4001.063	256619.570	3450303.123	5.871	KAC 708	5th century CE		Emperor uncertain	AE4	uncertain mint	
454	Surface Layers	4.4001.064	256620.184	3450303.480	5.882	KAC 523	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
81	Surface Layers	4.4001.065	256620.216	3450303.591	5.884	KAC 76	4th century CE	347-348 CE	Costans/Constantius II (before 348 CE)	follis		
459	Surface Layers	4.4001.066	256618.197	3450302.995	5.843	KAC 531	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
816	Surface Layers	4.4001.067	256620.180	3450301.095	5.945	KAC 933	5th century CE		Emperor uncertain	AE4	uncertain mint	
5	Surface Layers	4.4001.068	256623.442	3450297.397	6.152	KAC 33	1st-2nd century CE		Emperor uncertain			
483	Surface Layers	4.4001.069	256623.367	3450298.091	6.087	KAC 565	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
101	Surface Layers	4.4001.070	256622.686	3450298.439	6.066	KAC 98	4th century CE	350-361 CE	Constantius II (after 348 CE)	AE3		
369	Surface Layers	4.4001.071	256621.529	3450298.639	6.036	KAC 398	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
557	Surface Layers	4.4001.071	256622.682	3450298.441	6.066	KAC 398	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
155	Surface Layers	4.4001.072	256621.468	3450298.743	6.016	KAC 137	4th century CE	388-395 CE	Theodosius I	AE4	mint of Constantinopolis	
511	Surface Layers	4.4001.117	256617.706	3450305.685	5.774	KAC 611	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
820	Surface Layers	4.4001.118	256616.906	3450305.104	5.776	KAC 967	5th century CE		Emperor uncertain	AE4	uncertain mint	
211	Surface Layers	4.4002.078	256621.150	3450299.610	5.964	KAC 264	4th century CE		Emperor uncertain	AE3	uncertain mint	
819	Surface Layers	4.4002.079	256620.117	3450300.048	5.898	KAC 958	5th century CE		Emperor uncertain	AE4	uncertain mint	
183	Surface Layers	4.4002.080	256620.249	3450299.981	5.903	KAC 275	4th century CE		Emperor uncertain	AE3	uncertain mint	
181	Surface Layers	4.4002.081	256620.393	3450299.523	5.913	KAC 270	4th century CE		Emperor uncertain	AE3	uncertain mint	
810	Surface Layers	4.4002.082	256620.571	3450300.134	5.968	KAC 878	5th century CE		Emperor uncertain	AE4	uncertain mint	
352	Surface Layers	4.4002.091	256623.923	3450295.083	6.276	KAC 362	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
617	Surface Layers	4.4002.095	256623.967	3450294.214	6.335	KAC 221	5th century CE	425-435 CE	Valentinian III	AE4	mint of Rome	
596	Surface Layers	4.4002.096	256621.383	3450291.875	6.226	KAC 210	5th century CE	404-406 CE	Arcadius / Honorius / Theodosius II	AE4	uncertain mint (Eastern)	
607	Surface Layers	4.4002.097	256622.409	3450291.034	6.383	KAC 223	5th century CE	425-435 CE	Theodosius II / Valentinian III	AE4	uncertain mint (Eastern)	
439	Surface Layers	4.4002.098	256623.894	3450292.451	6.368	KAC 500	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
467	Surface Layers	4.4002.099	256622.660	3450289.573	6.449	KAC 541	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
799	Surface Layers	4.4002.100	256621.785	3450290.199	6.429	KAC 785	5th century CE		Emperor uncertain	AE4	uncertain mint	
806	Surface Layers	4.4002.101	256623.486	3450289.729	6.475	KAC 858	5th century CE		Emperor uncertain	AE4	uncertain mint	
794	Surface Layers	4.4002.102	256623.709	3450291.371	6.364	KAC 726	5th century CE		Emperor uncertain	AE4	uncertain mint	
474	Surface Layers	4.4002.103	256623.653	3450290.812	6.376	KAC 550	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
388	Surface Layers	4.4002.104	256623.981	3450293.230	6.272	KAC 425	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	

399	Surface Layers	4.4002.105	256624.244	3450290.026	6.451	KAC 438	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
814	Surface Layers	4.4002.106	256625.109	3450291.097	6.414	KAC 927	5th century CE		Emperor uncertain	AE4	uncertain mint	
423	Surface Layers	4.4002.107	256626.068	3450292.971	6.399	KAC 471	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
813	Surface Layers	4.4002.109	256619.952	3450295.941	6.054	KAC 917	5th century CE		Emperor uncertain	AE4	uncertain mint	
247	Surface Layers	4.4002.110	256623.926	3450296.726	6.169	KAC 181	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
805	Surface Layers	4.4002.111	256619.436	3450305.176	5.861	KAC 856	5th century CE		Emperor uncertain	AE4	uncertain mint	
434	Surface Layers	4.4002.121	256622.225	3450289.765	6.387	KAC 493	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
678	Surface Layers	4.4002.242	256623.501	3450292.580	6.298	KAC 782	5th century CE		Emperor uncertain	AE4	uncertain mint	
746	Surface Layers	4.4002.243	256624.673	3450292.902	6.242	KAC 901	5th century CE		Emperor uncertain	AE4	uncertain mint	
212	Surface Layers	4.4002.333	256623.087	3450291.764	6.259	KAC 265	4th century CE		Emperor uncertain	AE3	uncertain mint	
555	Surface Layers	4.4002.334	256623.619	3450292.609	6.277	KAC 327	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	
172	Surface Layers	4.4002.336	256623.466	3450292.704	6.141	KAC 251 (?)	4th century CE		Emperor uncertain	AE3	uncertain mint	
273	Surface Layers	4.4002.338	256623.188	3450292.283	6.080	KAC 160	4th-5th century CE	395-401 CE	Honorius	AE3	uncertain mint (Eastern)	
248	Surface Layers	4.4004.129	256619.214	3450288.229	6.238	KAC 182	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
246	Surface Layers	4.4004.131	256619.161	3450288.703	6.185	KAC 180	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
804	Surface Layers	4.4004.133	256618.952	3450288.185	6.181	KAC 852	5th century CE		Emperor uncertain	AE4	uncertain mint	
44	Surface Layers	4.4004.134	256620.329	3450288.936	6.218	KAC 40	second half of 3rd century CE		Emperor uncertain	tetradrachm		
815	Surface Layers	4.4004.135	256620.993	3450290.188	6.232	KAC 931	5th century CE		Emperor uncertain	AE4	uncertain mint	
795	Surface Layers	4.4004.138	256618.119	3450289.510	6.187	KAC 739	5th century CE		Emperor uncertain	AE4	uncertain mint	
581	Surface Layers	4.4004.140	256619.870	3450290.370	6.200	KAC 691	late 4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
217	Surface Layers	4.4004.141	256620.015	3450290.633	6.178	KAC 291	4th century CE		Emperor uncertain	AE3	uncertain mint	
93	Surface Layers	4.4006.142	256616.681	3450289.941	6.169	KAC 87	4th century CE	350-361 CE	Constantius II (after 348 CE)	AE3		
578	Surface Layers	4.4007.152	256616.704	3450293.140	5.962	KAC 651	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
807	Surface Layers	4.4007.153	256615.927	3450297.338	5.821	KAC 865	5th century CE		Emperor uncertain	AE4	uncertain mint	
538	Surface Layers	4.4007.154	256615.878	3450297.498	5.817	KAC 664	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
75	Surface Layers	4.4007.156	256616.309	3450300.142	5.858	KAC 79	4th century CE	337-340 CE	Costans/Constantius II (before 348 CE)	follis		
124	Surface Layers	4.4007.157	256614.162	3450301.907	5.748	KAC 140	4th century CE	364-388 CE	Emperor uncertain	AE3	uncertain mint	
91	Surface Layers	4.4007.158	256614.989	3450302.903	5.755	KAC 85	4th century CE	350-361 CE	Constantius ii (after 348 CE)	AE3	uncertain mint	
57	Surface Layers	4.4007.161	256616.300	3450300.623	5.696	KAC 51	4th century CE	296-307 CE	Uncertain emperor	radiate fraction		
801	Surface Layers	4.4007.167	256611.212	3450304.774	5.593	KAC 802	5th century CE		Emperor uncertain	AE4	uncertain mint	
199	Surface Layers	4.4008.182	256625.696	3450302.630	5.989	KAC 306	4th century CE		Emperor uncertain	AE3	uncertain mint	
633	Surface Layers	4.4008.187	256621.693	3450304.370	5.928	KAC 310	early 5th century CE		Emperor uncertain	AE3	uncertain mint	
582	Surface Layers	4.4008.188	256620.375	3450306.213	5.881	KAC 692	late 4th-5th century CE		Emperor uncertain	AE4	uncertain mint	

809	Surface Layers	4.4008.189	256627.756	3450293.250	6.382	KAC 873	5th century CE		Emperor uncertain	AE4	uncertain mint	
811	Surface Layers	4.4008.190	256628.157	3450292.662	6.404	KAC 885	5th century CE		Emperor uncertain	AE4	uncertain mint	
525	Surface Layers	4.4008.191	256629.723	3450292.577	6.419	KAC 638	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
226	Surface Layers	4.4008.194	256628.510	3450294.243	6.384	KAC 114	4th century CE		Valentinian I	AE3	mint of Sirmium	
321	Surface Layers	4.4008.195	256631.225	3450296.226	6.288	KAC 312	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	
146	Surface Layers	4.4008.196	256632.522	3450296.358	6.292	KAC 132	4th century CE	383-392	Valentinian II	AE4	uncertain mint	
502	Surface Layers	4.4008.197	256633.272	3450297.538	6.278	KAC 595	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
173	Surface Layers	4.4008.200	256627.917	3450299.696	6.185	KAC 254	4th century CE		Emperor uncertain	AE3	uncertain mint	
515	Surface Layers	4.4008.201	256628.695	3450301.822	6.110	KAC 620	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
137	Surface Layers	4.4008.204	256625.285	3450304.912	5.900	KAC 152	4th century CE	378-388 CE	Emperor uncertain	AE4	uncertain mint	
797	Surface Layers	4.4008.205	256628.345	3450309.731	5.537	KAC 747	5th century CE		Emperor uncertain	AE4	uncertain mint	
445	Surface Layers	4.4008.206	256624.992	3450306.652	5.867	KAC 510	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
791	Surface Layers	4.4008.207	256625.579	3450305.450	5.877	KAC 698	5th century CE		Emperor uncertain	AE4	uncertain mint	
818	Surface Layers	4.4008.208	256626.300	3450305.368	5.900	KAC 949	5th century CE		Emperor uncertain	AE4	uncertain mint	
673	Surface Layers	4.4008.209	256623.387	3450305.984	5.825	KAC 774	5th century CE		Emperor uncertain	AE4	uncertain mint	
656	Surface Layers	4.4008.211	256626.165	3450303.778	6.005	KAC 744	5th century CE		Emperor uncertain	AE4	uncertain mint	
655	Surface Layers	4.4008.212	256624.077	3450311.140	5.655	KAC 743	5th century CE		Emperor uncertain	AE4	uncertain mint	
18	Surface Layers	4.4008.213	256627.239	3450312.019	5.434	KAC 5	3rd century BCE	261-ca. 240 BCE	Ptolemy II/Ptolemy III	diobol		
652	Surface Layers	4.4008.214	256624.388	3450310.418	5.697	KAC 733	5th century CE		Emperor uncertain	AE4	uncertain mint	
516	Surface Layers	4.4009.165	256614.858	3450303.776	5.634	KAC 622	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
840	Surface Layers	4.4009.168	256615.688	3450303.697	5.802	KAC 988	4th-6th century CE (?)		/	AE	/	Oxidation - Maybe a coin or another small bronze object
829	Surface Layers	4.4010.173	256613.830	3450300.708	5.668	KAC 990	5th century CE		Issuer and mint uncertain	AE4	uncertain mint	Imitation of Roman Imperial Coin
611	Surface Layers	4.4010.174	256613.278	3450300.245	5.657	KAC 229	5th century CE	425-435 CE	Theodosius II / Valentinian III	AE4	uncertain mint (Eastern)	
481	Surface Layers	4.4010.176	256613.999	3450301.399	5.656	KAC 562	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
532	Surface Layers	4.4010.177	256612.831	3450301.761	5.592	KAC 652	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
376	Surface Layers	4.4010.179	256611.830	3450301.324	5.646	KAC 408	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
381	Surface Layers	4.4011.225	256630.668	3450293.994	6.365	KAC 414	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
87	Surface Layers	4.4011.226	256630.339	3450294.204	6.320	KAC 100	4th century CE	350-361 CE	Constantius II (after 348 CE)	AE3		
110	Surface Layers	4.4011.227	256630.333	3450294.359	6.318	KAC 115	4th century CE	364-375 CE	Constantius II/Constantius II for Julian III/Julian III	AE3		
649	Surface Layers	4.4011.230	256630.876	3450294.778	6.260	KAC 728	5th century CE		Emperor uncertain	AE4	uncertain mint	
19	Surface Layers	4.4011.232	256631.656	3450294.912	6.263	KAC 15	3rd century BCE		Ptolemies			
70	Surface Layers	4.4011.235	256633.466	3450295.840	6.233	KAC 63	4th century CE	323-329 CE	Constantine I for Helena	follis		

455	Surface Layers	4.4011.236	256633.569	3450295.581	6.247	KAC 526	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
327	Surface Layers	4.4011.239	256630.137	3450299.846	6.040	KAC 320	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	
707	Surface Layers	4.4011.250	256632.904	3450301.457	5.992	KAC 832	5th century CE		Emperor uncertain	AE4	uncertain mint	
498	Surface Layers	4.4011.251	256632.216	3450303.100	5.939	KAC 587	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
542	Surface Layers	4.4011.253	256629.287	3450302.656	6.047	KAC 670	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
245	Surface Layers	4.4011.254	256630.975	3450302.846	5.891	KAC 179	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
142	Surface Layers	4.4011.256	256631.772	3450302.033	5.945	KAC 138	4th century CE	378-388 CE	Theodosius I	AE4	uncertain mint	
363	Surface Layers	4.4011.261	256631.257	3450295.784	6.274	KAC 385	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
322	Surface Layers	4.4011.262	256631.050	3450295.924	6.303	KAC 313	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	
754	Surface Layers	4.4011.263	256632.118	3450295.429	6.216	KAC 913	5th century CE		Emperor uncertain	AE4	uncertain mint	
213	Surface Layers	4.4011.265	256631.035	3450295.784	6.293	KAC 266	4th century CE		Emperor uncertain	AE3	uncertain mint	
644	Surface Layers	4.4011.266	256631.088	3450295.814	6.289	KAC 721	5th century CE		Emperor uncertain	AE4	uncertain mint	
239	Surface Layers	4.4011.267	256631.234	3450295.696	6.204	KAC 168	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
130	Surface Layers	4.4011.268	256631.127	3450295.584	6.225	KAC 131	4th century CE	378-383 CE	Valentinian II	AE3	mint of Cyzicus	
577	Surface Layers	4.4012.216	256628.200	3450296.029	6.308	KAC 631	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
216	Surface Layers	4.4012.218	256627.719	3450295.316	6.323	KAC 274	4th century CE		Emperor uncertain	AE3	uncertain mint	
260	Surface Layers	4.4012.220	256627.882	3450295.898	6.295	KAC 195	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
62	Surface Layers	4.4012.221	256629.249	3450296.516	6.267	KAC 58	4th century CE	313-318 CE	Constantine I	follis		
249	Surface Layers	4.4012.229	256626.470	3450294.661	6.307	KAC 183	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
682	Surface Layers	4.4013.244	256624.814	3450298.470	6.168	KAC 788	5th century CE		Emperor uncertain	AE4	uncertain mint	
328	Area of House Room B	4.4014.269	256620.646	3450300.138	5.892	KAC 321	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	
262	Area of House Room B	4.4014.270	256620.379	3450300.024	5.901	KAC 200	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
736	Area of House Room B	4.4014.271	256621.119	3450299.023	5.921	KAC 888	5th century CE		Emperor uncertain	AE4	uncertain mint	
717	Area of House Room B	4.4014.273	256618.720	3450298.342	5.879	KAC 847	5th century CE		Emperor uncertain	AE4	uncertain mint	
408	Area of House Room B	4.4014.274	256618.662	3450298.741	5.839	KAC 448	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
836	Area of House Room B	4.4014.275	256620.271	3450299.944	5.885	KAC 983	4th-6th century CE (?)		/	AE	/	Oxidation - Maybe a coin or another small bronze object
694	Area of House Room B	4.4014.276	256620.084	3450300.005	5.895	KAC 810	5th century CE		Emperor uncertain	AE4	uncertain mint	
473	Area of House Room B	4.4014.277	256620.112	3450299.758	5.856	KAC 548	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
241	Area of House Room B	4.4014.278	256620.255	3450299.725	5.881	KAC 170	4th/5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
495	Area of House Room B	4.4014.279	256620.008	3450299.823	5.851	KAC 584	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	

113	Area of House Room B	4.4014.280	256620.380	3450299.619	5.888	KAC 116	4th century CE	364-378 CE	Valens	AE3		
664	Area of House Room B	4.4014.281	256620.696	3450299.366	5.913	KAC 759	5th century CE		Emperor uncertain	AE4	uncertain mint	
353	Area of House Room B	4.4014.282	256620.289	3450299.844	5.891	KAC 364	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
743	Area of House Room B	4.4014.283	256619.160	3450298.007	5.902	KAC 898	5th century CE		Emperor uncertain	AE4	uncertain mint	
606	Area of House Room B	4.4014.284	256618.984	3450298.130	5.894	KAC 222	5th century CE	425-435 CE	Theodosius II / Valentinian III	AE4	uncertain mint (Eastern)	
777	Area of House Room B	4.4014.285	256618.958	3450298.223	5.892	KAC 948	5th century CE		Emperor uncertain	AE4	uncertain mint	
687	Area of House Room B	4.4014.286	256619.112	3450298.411	5.894	KAC 798	5th century CE		Emperor uncertain	AE4	uncertain mint	
361	Area of House Room B	4.4014.289	256620.518	3450299.566	5.904	KAC 381	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
738	Area of House Room B	4.4014.291	256620.978	3450298.233	5.931	KAC 890	5th century CE		Emperor uncertain	AE4	uncertain mint	
747	Area of House Room B	4.4014.292	256620.921	3450298.140	5.931	KAC 903	5th century CE		Emperor uncertain	AE4	uncertain mint	
786	Area of House Room B	4.4014.294	256619.819	3450299.284	5.846	KAC 970	5th century CE		Emperor uncertain	AE4	uncertain mint	
393	Area of House Room B	4.4014.295	256620.780	3450299.246	5.932	KAC 431	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
462	Area of House Room B	4.4014.296	256621.598	3450297.722	5.973	KAC 534	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
690	Area of House Room B	4.4014.298	256621.924	3450298.063	5.940	KAC 803	5th century CE		Emperor uncertain	AE4	uncertain mint	
562	Area of House Room B	4.4014.299	256621.803	3450298.016	5.951	KAC 460	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
768	Area of House Room B	4.4014.300	256621.675	3450297.682	5.981	KAC 937	5th century CE		Emperor uncertain	AE4	uncertain mint	
724	Area of House Room B	4.4014.301	256622.323	3450296.927	5.970	KAC 864	5th century CE		Emperor uncertain	AE4	uncertain mint	
149	Area of House Room B	4.4014.302	256622.315	3450296.661	5.962	KAC 144	4th century CE	388-392 CE	Arcadius	AE4	mint of Nicomedia	
654	Area of House Room B	4.4014.303	256622.267	3450296.438	5.966	KAC 741	5th century CE		Emperor uncertain	AE4	uncertain mint	
59	Area of House Room B	4.4014.304	256620.401	3450300.045	5.885	KAC 48	4th century CE	308 CE	Maximian	follis		
597	Area of House Room B	4.4015.310	256622.836	3450294.540	6.036	KAC 212	5th century CE	404-406 CE	Arcadius / Honorius / Theodosius II	AE4	uncertain mint (Eastern)	
635	Area of House Room B	4.4015.311	256622.549	3450294.429	6.020	KAC 693	early 5th century CE		Emperor uncertain	AE4	uncertain mint	
218	Area of House Room B	4.4015.312	256621.412	3450293.216	6.051	KAC 354	4th century CE		Emperor uncertain	AE4	uncertain mint	
208	Area of House Room B	4.4016.320	256621.999	3450292.059	6.092	KAC 246	4th century CE		Emperor uncertain	AE3	uncertain mint	
760	Area of House Room B	4.4016.321	256622.251	3450291.346	6.072	KAC 922	5th century CE		Emperor uncertain	AE4	uncertain mint	
640	Area of House Room B	4.4016.326	256623.075	3450291.573	6.068	KAC 704	5th century CE		Emperor uncertain	AE4	uncertain mint	
143	Area of House Room B	4.4016.327	256624.903	3450294.715	6.170	KAC 147	4th century CE	378-388 CE	Valentinian II / Theodosius I / Arcadius	AE4	uncertain mint	
618	Area of House Room B	4.4016.328	256622.589	3450289.728	6.283	KAC 209	5th century CE	430-435 CE	Theodosius II	AE4	uncertain mint (Eastern)	

784	Area of House Room B	4.4016.329	256623.958	3450291.264	6.152	KAC 968	5th century CE		Emperor uncertain	AE4	uncertain mint	
114	Area of House Room B	4.4016.330	256624.479	3450290.260	6.207	KAC 117	4th century CE	364-378 CE	Valens	AE3		
576	Area of House Room B	4.4016.331	256623.961	3450291.887	6.155	KAC 626	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
43	House Room A	4.4017.339	256617.583	3450301.816	5.789	KAC 37	second half of 3rd century CE		Emperor uncertain	tetradrachm		
71	House Room A	4.4017.340	256617.426	3450301.562	5.802	KAC 61	4th century CE	330-335 CE	Constantine I for Constantine II	follis		
537	House Room A	4.4017.341	256617.769	3450301.111	5.787	KAC 663	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
106	House Room A	4.4017.342	256617.159	3450301.810	5.817	KAC 112	4th century CE	355-363 CE	Constantius II/Constantius II for Julian III/Julian III	AE4		
38	House Room A	4.4017.345	256617.828	3450300.984	5.809	KAC 30	3rd century CE	294-295 CE	Diocletian	tetradrachm		
725	House Room A	4.4017.346	256617.324	3450301.965	5.815	KAC 866	5th century CE		Emperor uncertain	AE4	uncertain mint	
45	House Room A	4.4017.347	256618.240	3450300.491	5.799	KAC 41	second half of 3rd century CE		Emperor uncertain	tetradrachm		
496	House Room A	4.4017.349	256618.358	3450300.534	5.803	KAC 585	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
680	House Room A	4.4017.352	256618.078	3450301.211	5.801	KAC 784	5th century CE		Emperor uncertain	AE4	uncertain mint	
97	House Room A	4.4017.354	256618.258	3450299.981	5.830	KAC 91 and 712	4th century CE	350-361 CE	Constantius II (after 348 CE)	AE3		
188	House Room A	4.4017.355	256618.310	3450301.271	5.808	KAC 283	4th century CE		Emperor uncertain	AE3	uncertain mint	
651	House Room A	4.4017.356	256618.290	3450301.111	5.793	KAC 730	5th century CE		Emperor uncertain	AE4	uncertain mint	
506	House Room A	4.4017.357	256618.283	3450301.481	5.785	KAC 600	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
465	House Room A	4.4017.358	256618.014	3450302.355	5.758	KAC 538	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
187	House Room A	4.4017.359	256618.491	3450301.609	5.803	KAC 282	4th century CE		Emperor uncertain	AE3	uncertain mint	
425	House Room A	4.4017.360	256618.845	3450301.331	5.820	KAC 474	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
486	House Room A	4.4017.361	256618.631	3450302.347	5.777	KAC 569	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
138	House Room A	4.4017.362	256618.963	3450301.552	5.819	KAC 153	4th century CE	378-388 CE	Emperor uncertain	AE4	uncertain mint	
764	House Room A	4.4017.363	256618.965	3450300.392	5.815	KAC 929	5th century CE		Emperor uncertain	AE4	uncertain mint	
366	House Room A	4.4017.364	256619.303	3450300.478	5.845	KAC 394	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
693	House Room A	4.4017.365	256619.440	3450300.698	5.846	KAC 808	5th century CE		Emperor uncertain	AE4	uncertain mint	
365	House Room A	4.4017.367	256619.325	3450300.796	5.840	KAC 393	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
437	House Room A	4.4017.368	256619.274	3450300.683	5.840	KAC 498	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
386	House Room A	4.4017.369	256619.468	3450300.744	5.846	KAC 423	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
609	House Room A	4.4017.370	256619.599	3450300.727	5.838	KAC 226	5th century CE	425-435 CE	Theodosius II / Valentinian III	AE4	uncertain mint (Eastern)	
842	House Room A	4.4017.371	256618.670	3450302.656	5.737	KAC 440 or 932?						
675	House Room A	4.4017.372	256618.685	3450302.840	5.734	KAC 778	5th century CE		Emperor uncertain	AE4	uncertain mint	

385	House Room A	4.4017.373	256618.911	3450302.601	5.747	KAC 420	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
407	House Room A	4.4017.375	256618.911	3450302.468	5.750	KAC 447	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
646	House Room A	4.4017.376	256618.870	3450302.272	5.734	KAC 724	5th century CE		Emperor uncertain	AE4	uncertain mint	
453	House Room A	4.4017.377	256617.304	3450301.848	5.815	KAC 522	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
689	House Room A	4.4017.378	256618.406	3450302.556	5.760	KAC 800	5th century CE		Emperor uncertain	AE4	uncertain mint	
411	House Room A	4.4017.379	256618.591	3450301.808	5.782	KAC 453	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
662	House Room A	4.4017.380	256618.822	3450301.766	5.791	KAC 756	5th century CE		Emperor uncertain	AE4	uncertain mint	
719	House Room A	4.4017.381	256619.131	3450301.280	5.834	KAC 853	5th century CE		Emperor uncertain	AE4	uncertain mint	
676	House Room A	4.4017.382	256619.411	3450301.364	5.842	KAC 779	5th century CE		Emperor uncertain	AE4	uncertain mint	
657	House Room A	4.4017.383	256619.415	3450301.225	5.845	KAC 745	5th century CE		Emperor uncertain	AE4	uncertain mint	
765	House Room A	4.4017.384	256619.533	3450301.055	5.852	KAC 934	5th century CE		Emperor uncertain	AE4	uncertain mint	
358	House Room A	4.4017.385	256619.576	3450300.918	5.837	KAC 375	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
182	House Room A	4.4017.386	256619.561	3450300.680	5.841	KAC 271 or 361?	4th century CE		Emperor uncertain	AE3	uncertain mint	
373	House Room A	4.4017.388	256619.808	3450300.956	5.879	KAC 403	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
432	House Room A	4.4017.389	256619.881	3450301.585	5.869	KAC 489	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
721	House Room A	4.4017.390	256619.978	3450301.366	5.885	KAC 859	5th century CE		Emperor uncertain	AE4	uncertain mint	
401	House Room A	4.4017.391	256620.146	3450301.242	5.873	KAC 440 or 932?	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
402	House Room A	4.4017.392	256620.251	3450300.903	5.883	KAC 441	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
435	House Room A	4.4017.393	256620.433	3450301.176	5.899	KAC 494	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
427	House Room A	4.4017.394	256620.472	3450301.045	5.859	KAC 476	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
773	House Room A	4.4017.395	256620.383	3450301.817	5.865	KAC 944	5th century CE		Emperor uncertain	AE4	uncertain mint	
526	House Room A	4.4017.396	256620.552	3450301.381	5.881	KAC 639	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
513	House Room A	4.4017.397	256620.591	3450301.345	5.895	KAC 617	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
476	House Room A	4.4017.398	256620.563	3450301.921	5.867	KAC 553	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
639	House Room A	4.4017.399	256620.638	3450301.666	5.898	KAC 703	5th century CE		Emperor uncertain	AE4	uncertain mint	
95	House Room A	4.4017.400	256620.674	3450301.519	5.892	KAC 89	4th century CE	350-361 CE	Constantius II (after 348 CE)	AE3		
105	House Room A	4.4017.401	256620.797	3450301.243	5.887	KAC 111	4th century CE	355-363 CE	Constantius II/Constantius II for Julian III/Julian III	AE4		1 of 2 coins
827	House Room A	4.4017.401	256620.797	3450301.243	5.887	KAC 961	5th century CE		Emperor uncertain	AE4	uncertain mint	2 of 2 coins (half coin)
491	House Room A	4.4017.402	256620.662	3450302.498	5.813	KAC 576	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
598	House Room A	4.4017.403	256620.753	3450302.315	5.820	KAC 213	5th century CE	404-406 CE	Arcadius / Honorius / Theodosius II	AE4	uncertain mint (Eastern)	
108	House Room A	4.4017.404	256621.053	3450301.490	5.885	KAC 109	4th century CE	355-363 CE	Constantius II/Julian III	AE4		
331	Area of House Room B	4.4018.407	256621.208	3450299.958	5.823	KAC 326	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	

332	Area of House Room B	4.4018.408	256621.363	3450299.779	5.856	KAC 329	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	
522	Area of House Room B	4.4018.409	256620.890	3450299.859	5.795	KAC 634	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
543	Area of House Room B	4.4018.410	256620.845	3450299.353	5.805	KAC 671	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
560	Area of House Room B	4.4018.411	256620.614	3450299.197	5.805	KAC 456	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
695	Area of House Room B	4.4018.412	256620.203	3450298.890	5.836	KAC 811	5th century CE		Emperor uncertain	AE4	uncertain mint	
66	Area of House Room B	4.4018.413	256620.085	3450299.298	5.795	KAC 54	4th century CE	317-318 CE	Licinius I	follis		
392	Area of House Room B	4.4018.414	256620.040	3450298.677	5.820	KAC 430	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
594	Area of House Room B	4.4018.418	256619.733	3450299.746	5.744	KAC 166	4th/5th century CE	395-401 CE	Arcadius / Honorius	AE3	uncertain mint (Eastern)	
204	Area of House Room B	4.4018.420	256619.846	3450299.151	5.791	KAC 241	4th century CE		Emperor uncertain	follis/AE1	uncertain mint	
210	Area of House Room B	4.4018.421	256619.525	3450299.071	5.782	KAC 261	4th century CE		Emperor uncertain	AE3	uncertain mint	
638	Area of House Room B	4.4018.422	256619.508	3450299.339	5.798	KAC 701	5th century CE		Emperor uncertain	AE4	uncertain mint	
703	Area of House Room B	4.4018.423	256619.637	3450298.969	5.811	KAC 825	5th century CE		Emperor uncertain	AE4	uncertain mint	
333	Area of House Room B	4.4018.424	256619.748	3450298.760	5.819	KAC 330	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	
838	Area of House Room B	4.4018.425	256619.666	3450298.584	5.820	KAC 985	4th-6th century CE (?)		/	AE	/	Oxidation - Maybe a coin or another small bronze object
700	Area of House Room B	4.4018.426	256619.533	3450298.704	5.813	KAC 819	5th century CE		Emperor uncertain	AE4	uncertain mint	
602	Area of House Room B	4.4018.427	256619.326	3450298.954	5.801	KAC 162	5th century CE	408-423 CE	Honorius	AE4	mint of Rome	
757	Area of House Room B	4.4018.428	256619.011	3450299.234	5.783	KAC 918	5th century CE		Emperor uncertain	AE4	uncertain mint	
438	Area of House Room B	4.4018.429	256619.384	3450298.672	5.808	KAC 499	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
661	Area of House Room B	4.4018.430	256619.061	3450298.924	5.791	KAC 755	5th century CE		Emperor uncertain	AE4	uncertain mint	
667	Area of House Room B	4.4018.431	256619.004	3450298.684	5.790	KAC 767	5th century CE		Emperor uncertain	AE4	uncertain mint	
414	Area of House Room B	4.4018.432	256618.921	3450298.916	5.783	KAC 458	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
364	Area of House Room B	4.4018.433	256618.753	3450298.919	5.776	KAC 389	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
412	Area of House Room B	4.4018.434	256618.661	3450298.983	5.772	KAC 455 or 987?	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
518	Area of House Room B	4.4018.435	256621.607	3450298.620	5.847	KAC 624	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
389	Area of House Room B	4.4018.436	256621.364	3450298.341	5.844	KAC 426	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
708	Area of House Room B	4.4018.439	256619.515	3450297.043	5.844	KAC 833	5th century CE		Emperor uncertain	AE4	uncertain mint	
608	Area of House Room B	4.4018.440	256619.580	3450297.301	5.828	KAC 224	5th century CE	425-435 CE	Theodosius II / Valentinian III	AE4	uncertain mint (Eastern)	
359	Area of House Room B	4.4018.442	256619.920	3450296.828	5.849	KAC 378	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	

637	Area of House Room B	4.4018.443	256619.813	3450296.673	5.863	KAC 697	5th century CE		Emperor uncertain	AE4	uncertain mint	
772	Area of House Room B	4.4018.444	256619.809	3450296.310	5.860	KAC 943	5th century CE		Emperor uncertain	AE4	uncertain mint	
131	Area of House Room B	4.4018.445	256620.361	3450296.708	5.875	KAC 148	4th century CE	378-383 CE	Valentinian II / Theodosius I / Arcadius	AE3	uncertain mint (Eastern)	
535	Area of House Room B	4.4018.446	256620.457	3450296.838	5.877	KAC 656	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
94	Area of House Room B	4.4018.447	256620.579	3450296.674	5.872	KAC 88	4th century CE	350-361 CE	Constantius II (after 348 CE)	AE3		
634	Area of House Room B	4.4018.448	256618.954	3450298.262	5.784	KAC 345	first half of 5th century CE		Emperor uncertain	AE3	uncertain mint	
450	Area of House Room B	4.4018.449	256620.111	3450299.852	5.801	KAC 516	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
203	Area of House Room B	4.4018.451	256621.942	3450294.274	5.927	KAC 355	4th century CE		Emperor uncertain	AE4	uncertain mint	
501	Area of House Room B	4.4018.452	256622.598	3450293.237	5.991	KAC 594	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
72	Area of House Room B	4.4018.453	256622.160	3450293.268	5.991	KAC 64	4th century CE	330-337 CE	Family of Constantine I	follis		
769	Area of House Room B	4.4018.454	256623.061	3450292.430	6.008	KAC 938	5th century CE		Emperor uncertain	AE4	uncertain mint	
461	Area of House Room B	4.4018.455	256624.287	3450290.465	6.074	KAC 533	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
517	Area of House Room B	4.4019.456	256618.701	3450298.987	5.718	KAC 623	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
443	Area of House Room B	4.4019.461	256618.828	3450298.717	5.719	KAC 508	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
475	Area of House Room B	4.4019.462	256619.807	3450299.238	5.702	KAC 551	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
658	Area of House Room B	4.4019.464	256618.537	3450299.177	5.702	KAC 749	5th century CE		Emperor uncertain	AE4	uncertain mint	
544	Area of House Room B	4.4019.465	256619.018	3450298.322	5.728	KAC 675	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
395	Area of House Room B	4.4019.466	256619.669	3450297.802	5.765	KAC 433	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
759	Area of House Room B	4.4019.467	256619.768	3450297.640	5.774	KAC 921	5th century CE		Emperor uncertain	AE4	uncertain mint	
324	Area of House Room B	4.4019.468	256619.138	3450298.119	5.749	KAC 316	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	
670	Area of House Room B	4.4019.470	256619.526	3450297.894	5.776	KAC 771	5th century CE		Emperor uncertain	AE4	uncertain mint	
835	Area of House Room B	4.4019.471	256619.285	3450297.840	5.770	KAC 982	4th-6th century CE (?)		/	AE	/	Oxidation - Maybe a coin or another small bronze object
737	Area of House Room B	4.4019.472	256619.645	3450297.480	5.786	KAC 889	5th century CE		Emperor uncertain	AE4	uncertain mint	
834	Area of House Room B	4.4019.475	256619.375	3450297.649	5.778	KAC 981	4th-6th century CE (?)		/	AE	/	Oxidation - Maybe a coin or another small bronze object
832	Area of House Room B	4.4019.476	256619.233	3450297.980	5.769	KAC 1004	4th-6th century CE (?)		/	/	/	Small object in coin form (fragment of bronze object joined with a lead fragment) maybe used as coin
709	Area of House Room B	4.4019.477	256619.344	3450298.115	5.773	KAC 836	5th century CE		Emperor uncertain	AE4	uncertain mint	

436	Area of House Room B	4.4019.479	256620.263	3450297.446	5.812	KAC 496	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
330	Area of House Room B	4.4019.480	256620.290	3450297.316	5.806	KAC 324	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	
140	Area of House Room B	4.4019.481	256620.441	3450297.257	5.829	KAC 155	4th century CE	378-388 CE	Emperor uncertain	AE4	uncertain mint	
745	Area of House Room B	4.4019.482	256619.408	3450297.398	5.784	KAC 900	5th century CE		Emperor uncertain	AE4	uncertain mint	
433	Area of House Room B	4.4019.483	256620.373	3450297.462	5.825	KAC 490	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
370	Area of House Room B	4.4019.484	256620.377	3450297.055	5.809	KAC 399 and 491	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
185	Area of House Room B	4.4019.485	256620.770	3450297.179	5.825	KAC 279	4th century CE		Emperor uncertain	AE3	uncertain mint	
523	Area of House Room B	4.4019.486	256622.385	3450296.848	5.830	KAC 636	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
442	Area of House Room B	4.4019.487	256620.426	3450296.924	5.805	KAC 506	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
499	Area of House Room B	4.4019.488	256620.912	3450296.722	5.857	KAC 590	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
428	Area of House Room B	4.4019.489	256620.948	3450296.791	5.859	KAC 481	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
839	Area of House Room B	4.4019.490	256620.980	3450296.919	5.859	KAC 986	4th-6th century CE (?)		/	AE	/	Oxidation - Maybe a coin or another small bronze object
571	Area of House Room B	4.4019.491	256620.944	3450296.960	5.852	KAC 592	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
558	Area of House Room B	4.4019.492	256621.044	3450296.780	5.860	KAC 415	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
207	Area of House Room B	4.4019.493	256621.818	3450296.506	5.836	KAC 245	4th century CE		Emperor uncertain	AE2	uncertain mint	
688	Area of House Room B	4.4019.494	256621.133	3450296.687	5.872	KAC 799	5th century CE		Emperor uncertain	AE4	uncertain mint	
350	Area of House Room B	4.4019.495	256621.128	3450296.828	5.870	KAC 358	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
429	Area of House Room B	4.4019.496	256621.058	3450296.607	5.862	KAC 483	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
73	Area of House Room B	4.4019.497	256620.171	3450296.884	5.825	KAC 65	4th century CE	330-337 CE	Family of Constantine I	follis		
362	Area of House Room B	4.4019.498	256619.851	3450296.517	5.819	KAC 383	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
674	Area of House Room B	4.4019.499	256620.984	3450296.594	5.863	KAC 775	5th century CE		Emperor uncertain	AE4	uncertain mint	
564	Area of House Room B	4.4019.500	256620.827	3450296.688	5.858	KAC 477	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
753	Area of House Room B	4.4019.501	256619.953	3450296.804	5.824	KAC 912	5th century CE		Emperor uncertain	AE4	uncertain mint	
653	Area of House Room B	4.4019.502	256621.807	3450296.996	5.817	KAC 735	5th century CE		Emperor uncertain	AE4	uncertain mint	
89	Area of House Room B	4.4019.503	256621.166	3450296.041	5.904	KAC 83	4th century CE	350-361 CE	Constantius II (after 348 CE)	AE3		
741	Area of House Room B	4.4019.504	256624.124	3450290.079	6.074	KAC 894	5th century CE		Emperor uncertain	AE4	uncertain mint	
660	Area of House Room B	4.4019.505	256624.430	3450291.671	6.008	KAC 753	5th century CE		Emperor uncertain	AE4	uncertain mint	
830	Area of House Room B	4.4019.506	256624.308	3450291.700	6.003	KAC 233	5th century CE		Theodosius II / Valentinian III	AE4	uncertain mint (Eastern)	

171	Area of House Room B	4.4019.507	256623.915	3450293.539	5.941	KAC 249	4th century CE		Emperor uncertain	AE3	uncertain mint	
841	Area of House Room B	4.4020.508	256620.196	3450297.787	5.702	KAC 989	4th-6th century CE (?)		/	AE	/	Oxidation - Maybe a coin or another small bronze object
837	Area of House Room B	4.4020.509	256620.045	3450297.746	5.719	KAC 984	4th-6th century CE (?)		/	AE	/	Oxidation - Maybe a coin or another small bronze object
139	Area of House Room B	4.4020.510	256620.254	3450297.985	5.719	KAC 154	4th century CE	378-388 CE	Emperor uncertain	AE4	uncertain mint	
524	Area of House Room B	4.4020.511	256620.136	3450298.105	5.712	KAC 637	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
99	Area of House Room B	4.4020.512	256620.035	3450298.072	5.719	KAC 96	4th century CE	350-361 CE	Constantius II (after 348 CE)	AE3		
266	Area of House Room B	4.4020.513	256619.886	3450297.860	5.684	KAC 208	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
271	Area of House Room B	4.4020.514	256619.707	3450297.984	5.710	KAC 207	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
561	Area of House Room B	4.4020.515	256619.438	3450298.241	5.695	KAC 459	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
264	Area of House Room B	4.4020.516	256619.346	3450298.328	5.707	KAC 203	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
756	Area of House Room B	4.4020.517	256619.228	3450298.183	5.690	KAC 916	5th century CE		Emperor uncertain	AE4	uncertain mint	
528	Area of House Room B	4.4020.518	256619.141	3450298.289	5.709	KAC 642	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
547	Area of House Room B	4.4020.521	256619.150	3450298.399	5.708	KAC 678	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
685	Area of House Room B	4.4020.523	256619.233	3450298.441	5.710	KAC 796	5th century CE		Emperor uncertain	AE4	uncertain mint	
509	Area of House Room B	4.4020.524	256619.608	3450297.431	5.775	KAC 604	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
539	Area of House Room B	4.4020.525	256619.855	3450297.435	5.644	KAC 665	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
519	Area of House Room B	4.4020.526	256619.726	3450297.134	5.690	KAC 627 and 650	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
510	Area of House Room B	4.4020.527	256619.806	3450296.954	5.697	KAC 605	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
259	Area of House Room B	4.4020.528	256619.506	3450297.226	5.711	KAC 194	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
742	Area of House Room B	4.4020.529	256619.896	3450297.489	5.669	KAC 895	5th century CE		Emperor uncertain	AE4	uncertain mint	
339	Area of House Room B	4.4020.530	256619.831	3450296.295	5.794	KAC 337	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	
497	Area of House Room B	4.4020.531	256620.749	3450296.229	5.736	KAC 586	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
781	Area of House Room B	4.4020.533	256619.869	3450296.155	5.819	KAC 964	5th century CE		Emperor uncertain	AE4	uncertain mint	
396	Area of House Room B	4.4020.535	256623.031	3450294.133	5.823	KAC 434	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
58	Area of House Room B	4.4020.536	256623.177	3450294.072	5.848	KAC 49	4th century CE	305-306 CE	Constantius I	radiate fraction		
472	Area of House Room B	4.4020.537	256622.862	3450293.628	5.899	KAC 547	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
329	Area of House Room B	4.4020.538	256623.170	3450292.347	5.898	KAC 323	4th/5th century CE		Emperor uncertain	AE3	uncertain mint	

326	Area of House Room B	4.4020.542	256623.056	3450291.099	5.879	KAC 319	4th/5th century CE		Emperor uncertain	AE3	uncertain mint	
50	Area of House Room B	4.4020.543	256624.205	3450290.967	5.885	KAC 11	3rd-2nd century BCE		Ptolemies			
701	Area of House Room B	4.4020.544	256624.746	3450290.236	5.924	KAC 821	5th century CE		Emperor uncertain	AE4	uncertain mint	
197	Area of House Room B	4.4020.546	256626.552	3450291.197	5.969	KAC 304	4th century CE		Emperor uncertain	AE3	uncertain mint	
750	House Room A	4.4021.550	256620.589	3450301.009	5.799	KAC 906	5th century CE		Emperor uncertain	AE4	uncertain mint	
751	House Room A	4.4021.551	256620.306	3450300.966	5.803	KAC 908	5th century CE		Emperor uncertain	AE4	uncertain mint	
31	House Room A	4.4021.554	256618.095	3450301.625	5.716	KAC 28	3rd century CE	285-286 CE	Diocletian	tetradrachm		
752	House Room A	4.4021.555	256619.558	3450300.570	5.827	KAC 910	5th century CE		Emperor uncertain	AE4	uncertain mint	
748	House Room A	4.4021.556	256618.831	3450300.296	5.735	KAC 904	5th century CE		Emperor uncertain	AE4	uncertain mint	
400	House Room A	4.4021.558	256618.620	3450300.170	5.758	KAC 439	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
771	House Room A	4.4021.559	256619.008	3450301.873	5.751	KAC 942	5th century CE		Emperor uncertain	AE4	uncertain mint	
711	House Room A	4.4021.560	256618.288	3450300.033	5.695	KAC 839	5th century CE		Emperor uncertain	AE4	uncertain mint	
684	House Room A	4.4021.562	256621.307	3450303.284	5.686	KAC 795	5th century CE		Emperor uncertain	AE4	uncertain mint	
109	House Room A	4.4021.563	256620.518	3450303.147	5.724	KAC 108	4th century CE	361-363 CE	Julian III	AE3		
355	House Room A	4.4021.564	256620.058	3450300.857	5.755	KAC 369	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
67	House Room A	4.4021.566	256619.766	3450301.256	5.703	KAC 62	4th century CE	320-337 CE	Constantine I for Constantine II	follis		
477	House Room A	4.4021.567	256619.842	3450303.472	5.716	KAC 554	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
735	House Room B	4.4022.576	256620.160	3450298.927	5.693	KAC 886	5th century CE		Emperor uncertain	AE4	uncertain mint	
186	House Room B	4.4022.661	256620.795	3450298.476	5.647	KAC 280	4th century CE		Emperor uncertain	AE3	uncertain mint	
790	House Room B	4.4022.666	256618.828	3450297.363	5.940	KAC 976	5th century CE		Emperor uncertain	AE4	uncertain mint	
488	House Room B	4.4022.668	256618.890	3450297.674	5.839	KAC 571	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
265	House Room B	4.4022.669	256619.542	3450296.429	5.869	KAC 204	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
147	House Room B	4.4022.671	256619.696	3450295.898	5.900	KAC 133	4th century CE	383-392 CE	Valentinian II	AE4	uncertain mint	
761	House Room B	4.4022.673	256619.865	3450295.930	5.852	KAC 923	5th century CE		Emperor uncertain	AE4	uncertain mint	
458	House Room B	4.4022.675	256619.716	3450295.691	5.904	KAC 530	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
546	House Room B	4.4022.676	256618.850	3450298.283	5.766	KAC 677	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
404	House Room B	4.4022.677	256619.022	3450297.825	5.809	KAC 443	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
244	House Room B	4.4022.679	256619.087	3450297.802	5.778	KAC 177	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
648	House Room B	4.4022.681	256619.183	3450297.087	5.809	KAC 727	5th century CE		Emperor uncertain	AE4	uncertain mint	
490	House Room B	4.4022.682	256619.220	3450297.006	5.805	KAC 575	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
504	House Room B	4.4022.683	256619.241	3450296.934	5.808	KAC 598	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
549	House Room B	4.4022.684	256619.303	3450296.860	5.811	KAC 680	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
263	House Room B	4.4022.685	256619.330	3450296.861	5.805	KAC 202	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	

599	House Room B	4.4022.686	256619.416	3450296.857	5.797	KAC 214	5th century CE	404-406 CE	Arcadius / Honorius / Theodosius II	AE4	uncertain mint (Eastern)	
469	House Room B	4.4022.687	256619.511	3450296.627	5.797	KAC 543	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
569	House Room B	4.4022.706	256619.743	3450295.896	6.368	KAC 528	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
566	House Room B	4.4022.707	256618.767	3450298.304	6.255	KAC 486	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
391	Over Third Building	4.4025.581	256622.018	3450289.178	6.372	KAC 429	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
731	Over Third Building	4.4025.582	256622.971	3450289.804	6.093	KAC 880	5th century CE		Emperor uncertain	AE4	uncertain mint	
534	Over Third Building	4.4025.583	256623.416	3450290.047	5.926	KAC 655	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
485	Wall	4.4027.1086	256630.466	3450302.647	5.180	KAC 567	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
357	Wall	4.4027.1087	256630.805	3450302.223	5.236	KAC 372	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
125	Wall	4.4050.1091	256619.824	3450295.192	5.197	KAC 141	4th century CE	364-388 CE	Emperor uncertain	AE3	uncertain mint	
47	Wall	4.4050.708	256619.312	3450294.949	6.452	KAC 44	second half of 3rd century CE		Emperor uncertain	tetradrachm		
541	Wall	4.4050.711	256618.266	3450298.974	6.349	KAC 667	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
219	House Room B	4.4050SL001.2034	256619.554	3450295.463	5.826	KAC	4th century CE		Emperor uncertain	AE4	uncertain mint	
145	House Room B	4.4050SL001.2035	256619.545	3450295.457	5.823	KAC	late 4th century CE	383-388 CE	Emperor uncertain	AE4	mint of Aquileia/Rome/Thessaloniki	
74	House Room B	4.4050SL001.2036	256619.521	3450295.510	5.825	KAC	4th century CE	337-340 CE	Constans II	follis	mint of Nicomedia	
220	House Room B	4.4050SL001.2037	256619.518	3450295.482	5.825	KAC	4th century CE		Emperor uncertain	AE4	uncertain mint	
223	House Room B	4.4050SL001.2051	256619.209	3450296.879	5.816	KAC	4th century CE		Emperor uncertain	AE3	uncertain mint	
587	House Room B	4.4050SL001.2052	256619.012	3450296.909	5.829	KAC	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
588	House Room B	4.4050SL001.2053	256619.318	3450297.188	5.787	KAC	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
446	Wall	4.4061.691	256622.211	3450299.057	6.044	KAC 512	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
512	Wall	4.4061.718	256621.526	3450299.403	5.963	KAC 614	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
463	Wall	4.4061.719	256621.579	3450299.315	5.974	KAC 535	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
686	Wall	4.4061.755	256622.182	3450298.956	5.961	KAC 797	5th century CE		Emperor uncertain	AE4	uncertain mint	
507	Wall	4.4061.756	256623.480	3450296.957	6.590	KAC 601	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
134	House Room A	4.4065.590	256618.630	3450300.241	5.627	KAC 149	4th century CE	378-388 CE	Emperor uncertain	AE4	uncertain mint	
29	House Room A	4.4065.591	256617.863	3450301.348	5.570	KAC 47	3rd century CE	285 CE	Diocletian	antoninianus		
157	House Room A	4.4065.594	256618.966	3450301.613	5.578	KAC 158	4th century CE	388-395 CE	Uncertain emperor	AE4	mint of Alexandria	
21	House Room A	4.4065.607	256618.862	3450301.604	5.158	KAC 25	3rd century CE	280-281 CE	Probus	tetradrachm		
64	House Room A	4.4065.608	256618.482	3450301.774	5.138	KAC 55	4th century CE	314-315 CE	Licinius I	follis		

34	House Room A	4.4065.612	256618.155	3450299.942	5.234	KAC 29	3rd century CE	288-289 CE	Diocletian	tetradrachm		
540	House Room A	4.4065.613	256618.485	3450299.975	5.236	KAC 666	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
6	House Room A	4.4066.622	256618.613	3450301.642	5.023	KAC 34	1st-2nd century CE		Emperor uncertain			
551	House Room A	4.4066.624	256619.846	3450303.151	4.963	KAC 684	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
51	House Room A	4.4067.644	256617.279	3450302.306	4.315	KAC 14	3rd-2nd century BCE		Ptolemies	AE	/	
11	House Room B	4.4069.712	256619.964	3450298.272	5.989	KAC 21	2nd century CE	128-129 CE	Hadrian	tetradrachm		
13	House Room B	4.4072.899	256621.752	3450298.460	4.924	KAC 24	2nd century CE	144-145 CE	Antoninus Pius			
553	House Room B	4.4072.901	256621.315	3450298.297	4.862	KAC 689	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
26	Under House Room B	4.4075.1148	256621.361	3450298.173	4.271	KAC 27	3rd century CE	283-284 CE	Carinus	tetradrachm		
10	Under House Room B	4.4075.1150	256620.003	3450298.153	4.268	KAC 20	2nd century CE	127-129 CE	Hadrian	tetradrachm		
12	Under House Room B	4.4081.1174	256619.785	3450297.021	3.893	KAC 23	2nd century CE	133-134 CE	Hadrian			
7	Under House Room B	4.4081.1179	256621.684	3450298.778	3.713	KAC 35	1st-2nd century CE		Emperor uncertain			
341	Amphorae Storage Room C	4.4084.1248	256618.724	3450312.235	5.567	KAC 339	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	
343	Amphorae Storage Room C	4.4084.1249	256623.290	3450313.399	5.530	KAC 341	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	
527	Amphorae Storage Room C	4.4084.1250	256622.588	3450314.024	5.422	KAC 640	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
102	Amphorae Storage Room C	4.4084.1251	256622.195	3450313.199	5.540	KAC 99	4th century CE	350-361 CE	Constantius II (after 348 CE)	AE3		
552	Amphorae Storage Room C	4.4084.800	256622.383	3450312.582	5.585	KAC 687	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
460	Amphorae Storage Room C	4.4084.812	256619.766	3450308.640	5.611	KAC 532	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
120	Amphorae Storage Room C	4.4084.815	256618.519	3450310.696	5.529	KAC 124	4th century CE	364-383 CE	Uncertain	AE3		
190	Amphorae Storage Room C	4.4084.818	256618.539	3450310.902	5.519	KAC 286	4th century CE		Emperor uncertain	AE3	uncertain mint	
8	Amphorae Storage Room C	4.4084.819	256618.424	3450311.584	5.486	KAC 19	2nd century CE	126-127 CE	Hadrian			
176	Amphorae Storage Room C	4.4084.821	256618.176	3450311.555	5.490	KAC 257	4th century CE		Emperor uncertain	AE3	uncertain mint	
758	Amphorae Storage Room C	4.4084.829	256618.431	3450311.751	5.487	KAC 920	5th century CE		Emperor uncertain	AE4	uncertain mint	
529	Amphorae Storage Room C	4.4084.830	256619.647	3450312.356	5.598	KAC 645	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
616	Amphorae Storage Room C	4.4084.831	256620.290	3450312.298	5.601	KAC 220	5th century CE	425-435 CE	Valentinian III	AE4	mint of Rome	
774	Amphorae Storage Room C	4.4084.832	256620.277	3450312.203	5.594	KAC 945	5th century CE		Emperor uncertain	AE4	uncertain mint	
90	Amphorae Storage Room C	4.4084.834	256621.268	3450310.906	5.588	KAC 84	4th century CE	350-361 CE	Constantius II (after 348 CE)	AE3		

683	Amphorae Storage Room C	4.4084.836	256621.508	3450310.916	5.575	KAC 793	5th century CE		Emperor uncertain	AE4	uncertain mint	
521	Amphorae Storage Room C	4.4084.837	256620.926	3450311.387	5.566	KAC 630	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
384	Amphorae Storage Room C	4.4084.838	256622.644	3450312.496	5.540	KAC 419	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
225	Amphorae Storage Room C	4.4084.841	256622.666	3450312.396	5.55	KAC 262	4th century CE		Emperor uncertain	AE3	uncertain mint	
697	Amphorae Storage Room C	4.4084.842	256622.869	3450312.510	5.587	KAC 816	5th century CE		Emperor uncertain	AE4	uncertain mint	
531	Amphorae Storage Room C	4.4084.843	256622.818	3450312.029	5.568	KAC 649	late 4th-early 5th century CE		Emperor uncertain	ae4	uncertain mint	
770	Amphorae Storage Room C	4.4084.845	256621.631	3450310.604	5.567	KAC 941	5th century CE		Emperor uncertain	AE4	uncertain mint	
514	Amphorae Storage Room C	4.4084.846	256621.995	3450310.550	5.585	KAC 619	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
255	Amphorae Storage Room C	4.4084.847	256622.298	3450310.626	5.618	KAC 191	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
704	Amphorae Storage Room C	4.4084.848	256622.995	3450312.226	5.575	KAC 826	5th century CE		Emperor uncertain	AE4	uncertain mint	
659	Amphorae Storage Room C	4.4084.849	256622.997	3450312.228	5.572	KAC 752	5th century CE		Emperor uncertain	AE4	uncertain mint	
726	Amphorae Storage Room C	4.4084.850	256623.234	3450310.900	5.558	KAC 868	5th century CE		Emperor uncertain	AE4	uncertain mint	
424	Amphorae Storage Room C	4.4084.852	256621.836	3450313.443	5.553	KAC 472	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
398	Amphorae Storage Room C	4.4084.853	256623.298	3450311.696	5.530	KAC 436	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
191	Amphorae Storage Room C	4.4084.854	256623.705	3450311.421	5.573	KAC 287	4th century CE		Emperor uncertain	AE3	uncertain mint	
431	Amphorae Storage Room C	4.4084.855	256623.620	3450311.301	5.529	KAC 487	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
250	Amphorae Storage Room C	4.4084.856	256623.911	3450310.680	5.551	KAC 185	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
679	Amphorae Storage Room C	4.4084.857	256621.139	3450309.582	5.571	KAC 783	5th century CE		Emperor uncertain	AE4	uncertain mint	
348	Amphorae Storage Room C	4.4084.858	256619.446	3450312.139	5.502	KAC 353	4th-5th century CE		Emperor uncertain	AE3/AE4	uncertain mint	
713	Amphorae Storage Room C	4.4084.859	256621.331	3450309.452	5.568	KAC 841	5th century CE		Emperor uncertain	AE4	uncertain mint	
256	Amphorae Storage Room C	4.4084.860	256622.366	3450310.447	5.564	KAC 191	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
710	Amphorae Storage Room C	4.4084.861	256622.356	3450310.049	5.599	KAC 838	5th century CE		Emperor uncertain	AE4	uncertain mint	
500	Amphorae Storage Room C	4.4084.862	256623.301	3450309.832	5.597	KAC 591	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
135	Amphorae Storage Room C	4.4084.863	256623.378	3450309.910	5.604	KAC 150	4th century CE	378-388 CE	Emperor uncertain	AE4	uncertain mint	
698	Amphorae Storage Room C	4.4084.864	256623.911	3450311.107	5.539	KAC 817	5th century CE		Emperor uncertain	AE4	uncertain mint	
194	Amphorae Storage Room C	4.4084.866	256622.931	3450311.661	5.521	KAC 296	4th century CE		Emperor uncertain	AE3	uncertain mint	
669	Amphorae Storage Room C	4.4084.867	256622.578	3450312.834	5.448	KAC 770 (?)	5th century CE		Emperor uncertain	AE4	uncertain mint	

261	Amphorae Storage Room C	4.4084.869	256622.710	3450313.202	5.523	KAC 199	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
470	Amphorae Storage Room C	4.4084.870	256622.715	3450312.122	5.497	KAC 545	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
783	Amphorae Storage Room C	4.4084.872	256622.313	3450311.937	5.496	KAC 966	5th century CE		Emperor uncertain	AE4	uncertain mint	
692	Amphorae Storage Room C	4.4084.873	256622.714	3450311.828	5.508	KAC 807	5th century CE		Emperor uncertain	AE4	uncertain mint	
787	Amphorae Storage Room C	4.4084.874	256622.654	3450311.620	5.510	KAC 972	5th century CE		Emperor uncertain	AE4	uncertain mint	
705	Amphorae Storage Room C	4.4084.875	256622.930	3450311.670	5.517	KAC 828	5th century CE		Emperor uncertain	AE4	uncertain mint	
677	Amphorae Storage Room C	4.4084.876	256622.885	3450311.497	5.510	KAC 781	5th century CE		Emperor uncertain	AE4	uncertain mint	
782	Amphorae Storage Room D	4.4087.886	256616.573	3450311.457	5.465	KAC 965	5th century CE		Emperor uncertain	AE4	uncertain mint	
645	Amphorae Storage Room D	4.4087.888	256617.401	3450310.414	5.402	KAC 722	5th century CE		Emperor uncertain	AE4	uncertain mint	
117	Amphorae Storage Room D	4.4087.892	256616.512	3450309.846	5.365	KAC 129 or 560?	4th century CE	364-383 CE	Emperor uncertain	AE3		
739	Amphorae Storage Room D	4.4087.895	256617.401	3450310.875	5.260	KAC 892	5th century CE		Emperor uncertain	AE4	uncertain mint	
696	Amphorae Storage Room D	4.4087.896	256616.387	3450310.384	5.229	KAC 815	5th century CE		Emperor uncertain	AE4	uncertain mint	
732	Amphorae Storage Room D	4.4087.900	256615.955	3450312.614	5.127	KAC 882	5th century CE		Emperor uncertain	AE4	uncertain mint	
478	Amphorae Storage Room C	4.4090.1090	256621.961	3450313.579	4.868	KAC 556	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
536	Amphorae Storage Room C	4.4090.1252	256623.916	3450310.076	5.493	KAC 657	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
257	Amphorae Storage Room C	4.4090.907	256622.941	3450312.488	5.338	KAC 192	4th/5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
179	Amphorae Storage Room C	4.4090.908	256623.135	3450312.056	5.400	KAC 263	4th century CE		Emperor uncertain	AE3	uncertain mint	
718	Amphorae Storage Room C	4.4090.909	256623.106	3450311.213	5.389	KAC 851	5th century CE		Emperor uncertain	AE4	uncertain mint	
603	Amphorae Storage Room C	4.4090.911	256622.487	3450309.853	5.550	KAC 218	5th century CE	408-423 CE	Honorius / Theodosius II	AE3	uncertain mint (Eastern)	
489	Amphorae Storage Room C	4.4090.912	256622.053	3450312.371	5.343	KAC 574	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
83	Amphorae Storage Room C	4.4090.913	256622.147	3450312.710	5.274	KAC 104	4th century CE	348-350 CE	Costans/Constantius II (after 348 CE)	AE2		
671	Amphorae Storage Room C	4.4090.914	256622.441	3450311.703	5.471	KAC 772	5th century CE		Emperor uncertain	AE4	uncertain mint	
775	Amphorae Storage Room C	4.4090.915	256622.607	3450309.790	5.438	KAC 946	5th century CE		Emperor uncertain	AE4	uncertain mint	
762	Amphorae Storage Room C	4.4090.917	256621.776	3450309.880	5.384	KAC 924	5th century CE		Emperor uncertain	AE4	uncertain mint	
192	Amphorae Storage Room C	4.4090.918	256621.469	3450312.215	5.461	KAC 289	4th century CE		Emperor uncertain	AE3	uncertain mint	
195	Amphorae Storage Room C	4.4090.919	256621.472	3450312.188	5.461	KAC 301	4th century CE		Emperor uncertain	AE3	uncertain mint	
714	Amphorae Storage Room C	4.4090.920	256621.447	3450312.210	5.457	KAC 842	5th century CE		Emperor uncertain	AE4	uncertain mint	

668	Amphorae Storage Room C	4.4090.921	256621.485	3450309.527	5.524	KAC 768	5th century CE		Emperor uncertain	AE4	uncertain mint	
789	Amphorae Storage Room C	4.4090.922	256621.438	3450309.758	5.541	KAC 975	5th century CE		Emperor uncertain	AE4	uncertain mint	
785	Amphorae Storage Room C	4.4090.923	256621.555	3450311.321	5.425	KAC 969	5th century CE		Emperor uncertain	AE4	uncertain mint	
642	Amphorae Storage Room C	4.4090.924	256620.999	3450312.059	5.366	KAC 713	5th century CE		Emperor uncertain	AE4	uncertain mint	
466	Amphorae Storage Room C	4.4090.925	256619.499	3450309.950	5.505	KAC 539	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
156	Amphorae Storage Room C	4.4090.926	256618.573	3450311.775	5.355	KAC 139	4th century CE	388-395 CE	Theodosius I	AE4	uncertain mint	
788	Amphorae Storage Room C	4.4090.927	256619.035	3450311.956	5.406	KAC 974	5th century CE		Emperor uncertain	AE4	uncertain mint	
613	Amphorae Storage Room C	4.4090.928	256619.194	3450312.029	5.410	KAC 232	5th century CE	425-435 CE	Theodosius II / Valentinian III	AE4	uncertain mint (Eastern)	
198	Amphorae Storage Room C	4.4090.929	256619.632	3450312.206	5.353	KAC 305	4th century CE		Emperor uncertain	AE3	uncertain mint	
729	Amphorae Storage Room C	4.4090.930	256619.862	3450308.794	5.403	KAC 875	5th century CE		Emperor uncertain	AE4	uncertain mint	
158	Amphorae Storage Room C	4.4090.931	256616.075	3450307.629	5.446	KAC 164	4th century CE	388-395 CE	Valentinian II / Theodosius I / Arcadius / Honorius	AE4	uncertain mint (Eastern)	
150	Amphorae Storage Room C	4.4090.932	256615.521	3450307.726	5.474	KAC 134	4th century CE	388-392 CE	Valentinian II	AE4	uncertain mint	
665	Amphorae Storage Room E	4.4092.1024	256622.203	3450315.249	5.265	KAC 762	5th century CE		Emperor uncertain	AE4	uncertain mint	
574	Amphorae Storage Room E	4.4092.1141	256621.870	3450315.404	5.100	KAC 609	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
755	Amphorae Storage Room E	4.4092.1262	256620.565	3450315.511	5.382	KAC 915	5th century CE		Emperor uncertain	AE4	uncertain mint	
409	Amphorae Storage Room E	4.4092.1263	256620.982	3450316.078	5.332	KAC 450	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
740	Amphorae Storage Room E	4.4092.1295	256620.765	3450315.707	5.129	KAC 893	5th century CE		Emperor uncertain	AE4	uncertain mint	
301	Amphorae Storage Room E	4.4092.1310	256620.082	3450316.830	5.299	KAC	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
232	Amphorae Storage Room E	4.4092.1311	256620.967	3450316.519	5.322	KAC	late 4th-early 5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
233	Amphorae Storage Room E	4.4092.1314	256620.183	3450316.626	5.095	KAC	late 4th-early 5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
306	Amphorae Storage Room E	4.4092.1362	256621.218	3450316.944	5.171	KAC	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
317	Amphorae Storage Room E	4.4092.1574	256621.625	3450316.755	5.046	KAC	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
318	Amphorae Storage Room E	4.4092.1575	256621.702	3450316.760	4.946	KAC	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
631	Amphorae Storage Room E	4.4092.1576	256621.258	3450317.313	4.964	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	
744	Amphorae Storage Room E	4.4092.946	256622.187	3450315.522	5.383	KAC 899	5th century CE		Emperor uncertain	AE4	uncertain mint	
449	Amphorae Storage Room E	4.4092.947	256622.370	3450315.213	5.415	KAC 515	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	

405	Amphorae Storage Room E	4.4092.948	256622.164	3450315.085	5.412	KAC 445	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
354	Amphorae Storage Room E	4.4092.949	256621.317	3450314.682	5.453	KAC 366	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
728	Amphorae Storage Room E	4.4092.954	256620.639	3450314.315	5.421	KAC 872	5th century CE		Emperor uncertain	AE4	uncertain mint	
372	Amphorae Storage Room E	4.4092.955	256620.540	3450315.090	5.399	KAC 401	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
129	Amphorae Storage Room E	4.4092.956	256621.414	3450315.376	5.358	KAC 118	4th century CE	378-383 CE	Gratian	AE3		
346	Amphorae Storage Room E	4.4092.958	256621.866	3450315.723	5.322	KAC 346	4th-5th century CE		Emperor uncertain	AE3/AE4	uncertain mint	
406	Amphorae Storage Room E	4.4092.959	256620.979	3450315.063	5.295	KAC 446	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
415	Amphorae Storage Room E	4.4092.963	256621.929	3450314.897	5.360	KAC 461	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
368	Amphorae Storage Room E	4.4092.964	256621.702	3450314.681	5.444	KAC 396	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
387	Amphorae Storage Room E	4.4092.965	256620.498	3450315.319	5.294	KAC 424	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
612	Amphorae Storage Room E	4.4092.968	256621.073	3450314.545	5.159	KAC 231	5th century CE	425-435 CE	Theodosius II / Valentinian III	AE4	uncertain mint (Eastern)	
347	Amphorae Storage Room E	4.4092.972	256621.577	3450314.758	5.205	KAC 350 (?)	4th-5th century CE		Emperor uncertain	AE3/AE4	uncertain mint	
413	Amphorae Storage Room E	4.4092.975	256621.812	3450314.886	5.182	KAC 457	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
779	Amphorae Storage Room E	4.4092.976	256621.475	3450315.251	5.164	KAC 954	5th century CE		Emperor uncertain	AE4	uncertain mint	
201	Amphorae Storage Room E	4.4092.977	256621.459	3450315.547	5.306	KAC 308	second half of 4th century		Emperor uncertain	AE3	uncertain mint	
448	Amphorae Storage Room E	4.4092.979	256621.458	3450315.405	5.135	KAC 514	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
342	Amphorae Storage Room E	4.4092.980	256621.943	3450315.060	5.198	KAC 340	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	
720	Amphorae Storage Room E	4.4092.982	256620.912	3450315.145	5.115	KAC 857	5th century CE		Emperor uncertain	AE4	uncertain mint	
202	Amphorae Storage Room E	4.4092.986	256621.170	3450315.480	5.115	KAC 309	second half of 4th century		Emperor uncertain	AE3	uncertain mint	
302	Amphorae Storage Room F	4.4093.1316	256617.219	3450314.140	5.303	KAC	end of 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
115	Amphorae Storage Room F	4.4093.1318	256617.107	3450314.660	5.387	KAC	4th century CE	364-383 CE	Emperor uncertain	AE3	uncertain mint	
422	Amphorae Storage Room F	4.4093.950	256618.962	3450313.608	5.387	KAC 470	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
723	Amphorae Storage Room F	4.4093.952	256618.279	3450313.349	5.409	KAC 863	5th century CE		Emperor uncertain	AE4	uncertain mint	
234	Amphorae Storage Room F	4.4094.1320	256618.555	3450316.608	5.186	KAC	late 4th-early 5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
303	Amphorae Storage Room F	4.4094.1322	256618.600	3450316.509	5.198	KAC	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
235	Amphorae Storage Room F	4.4094.1325	256616.844	3450315.431	5.097	KAC	late 4th-early 5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
605	Amphorae Storage Room F	4.4094.1326	256617.071	3450315.436	5.146	KAC	5th century CE	425-435 CE	Theodosius II / Valentinian III	AE4	uncertain mint (Eastern)	

304	Amphorae Storage Room F	4.4094.1327	256617.180	3450315.562	5.035	KAC	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
305	Amphorae Storage Room F	4.4094.1328	256616.914	3450315.670	4.931	KAC	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
831	Amphorae Storage Room F	4.4094.1331	256617.881	3450315.262	5.212	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	Latin cross type imitation
116	Amphorae Storage Room F	4.4094.1334	256618.865	3450315.829	5.336	KAC	late 4th century CE	364-383 CE	Emperor uncertain	AE3	uncertain mint	
82	Amphorae Storage Room F	4.4094.1335	256618.532	3450315.758	5.237	KAC	mid-4th century CE	348-350 CE	Constantius II	AE2	mint of Cizycus	
122	Amphorae Storage Room F	4.4094.1337	256617.276	3450314.853	4.965	KAC	4th century CE	364-383 CE	Emperor uncertain	AE3	uncertain mint	
592	Amphorae Storage Room F	4.4094.1338	256617.353	3450314.385	4.965	KAC	late 4th-early 5th century CE	388-408 CE	Arcadius	AE4	uncertain mint	
626	Amphorae Storage Room F	4.4094.1339	256617.378	3450314.603	4.950	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	
165	Amphorae Storage Room F	4.4094.1444	256617.077	3450315.444	5.064	KAC	4th century CE		Emperor uncertain	AE3	uncertain mint	Under amphora 10
430	Amphorae Storage Room F	4.4094.969	256617.923	3450313.227	5.480	KAC 485	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
482	Amphorae Storage Room F	4.4094.970	256619.528	3450313.876	5.248	KAC 564	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
356	Amphorae Storage Room F	4.4094.971	256618.657	3450313.450	5.224	KAC 371	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
691	Amphorae Storage Room F	4.4094.984	256618.435	3450313.362	5.066	KAC 805	5th century CE		Emperor uncertain	AE4	uncertain mint	
733	Amphorae Storage Room F	4.4094.985	256618.369	3450313.340	5.081	KAC 883	5th century CE		Emperor uncertain	AE4	uncertain mint	
480	Amphorae Storage Room F	4.4094.987	256618.216	3450313.353	5.074	KAC 558	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
672	Amphorae Storage Room F	4.4094.988	256618.084	3450313.257	5.186	KAC 773	5th century CE		Emperor uncertain	AE4	uncertain mint	
833	Northwestern corner	4.4095.1001	256611.375	3450308.792	5.489	KAC 1006	/		/	/	/	Small object in coin form (nailhead) maybe used as coin
136	Northwestern corner	4.4095.1002	256611.887	3450308.814	5.470	KAC 151	4th century CE	378-388 CE	Emperor uncertain	AE4	uncertain mint	
46	Northwestern corner	4.4095.1003	256611.948	3450309.066	5.418	KAC 43	second half of 3rd century CE		Emperor uncertain	tetradrachm		
722	Northwestern corner	4.4095.1004	256611.944	3450309.288	5.417	KAC 860	5th century CE		Emperor uncertain	AE4	uncertain mint	
550	Northwestern corner	4.4095.1005	256611.772	3450309.657	5.392	KAC 681	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
344	Northwestern corner	4.4095.1006	256612.531	3450305.916	5.415	KAC 342	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	
452	Northwestern corner	4.4095.1007	256612.203	3450309.688	5.451	KAC 518	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
749	Northwestern corner	4.4095.1008	256611.346	3450308.742	5.478	KAC 905	5th century CE		Emperor uncertain	AE4	uncertain mint	
716	Northwestern corner	4.4095.1013	256612.670	3450311.115	5.335	KAC 845	5th century CE		Emperor uncertain	AE4	uncertain mint	
382	Northwestern corner	4.4095.1014	256612.214	3450309.353	5.385	KAC 416	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
780	Northwestern corner	4.4095.1015	256612.637	3450308.557	5.532	KAC 955	5th century CE		Emperor uncertain	AE4	uncertain mint	
568	Northwestern corner	4.4095.1016	256611.830	3450311.424	5.247	KAC 519	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
559	Northwestern corner	4.4095.1017	256610.619	3450309.335	5.326	KAC 427	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
556	Northwestern corner	4.4095.1020	256611.962	3450304.952	5.326	KAC 343	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	

565	Northwestern corner	4.4095.1021	256610.979	3450309.315	5.297	KAC 479	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
567	Northwestern corner	4.4095.1022	256610.737	3450309.074	5.344	KAC 492	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
417	Northwestern corner	4.4095.1027	256609.204	3450310.057	5.286	KAC 464	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
420	Northwestern corner	4.4095.1155	256612.858	3450306.251	5.484	KAC 467	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
479	Northwestern corner	4.4095.997	256609.667	3450310.015	5.390	KAC 557	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
258	Northwestern corner	4.4095.999	256611.179	3450306.079	5.402	KAC 193	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
79	Northwestern corner	4.4096.1034	256612.174	3450306.601	5.360	KAC 72	4th century CE	347-348 CE	Costans/Constantius II (before 348 CE)	follis		
215	Northwestern corner	4.4096.1036	256611.094	3450309.307	5.283	KAC 269	4th century CE		Emperor uncertain	AE3	uncertain mint	
337	Northwestern corner	4.4096.1041	256611.981	3450306.727	5.246	KAC 335	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	
242	Northwestern corner	4.4096.1042	256611.493	3450308.161	5.226	KAC 175	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
647	Northwestern corner	4.4096.1043	256609.153	3450308.198	5.273	KAC 725	5th century CE		Emperor uncertain	AE4	uncertain mint	
444	Northwestern corner	4.4096.1044	256612.327	3450309.137	5.249	KAC 509 and 635	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
336	Northwestern corner	4.4096.1045	256610.073	3450309.402	5.247	KAC 334	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	
763	Northwestern corner	4.4096.1046	256609.386	3450308.942	5.267	KAC 928	5th century CE		Emperor uncertain	AE4	uncertain mint	
778	Northwestern corner	4.4096.1047	256610.496	3450309.844	5.244	KAC 950	5th century CE		Emperor uncertain	AE4	uncertain mint	
252	Northwestern corner	4.4096.1048	256611.194	3450310.146	5.250	KAC 188	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
418	Northwestern corner	4.4096.1049	256611.776	3450309.994	5.243	KAC 465	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
367	Northwestern corner	4.4096.1050	256612.983	3450310.234	5.235	KAC 395	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
196	Northwestern corner	4.4096.1051	256609.569	3450310.114	5.125	KAC 303	4th century CE		Emperor uncertain	AE3	uncertain mint	
419	Northwestern corner	4.4096.1052	256610.216	3450309.900	5.197	KAC 466	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
604	Northwestern corner	4.4096.1053	256611.141	3450310.244	5.217	KAC 219	5th century CE	408-423 CE	Honorius / Theodosius II	AE3	uncertain mint (Eastern)	
776	Northwestern corner	4.4096.1055	256611.147	3450308.907	5.217	KAC 947	5th century CE		Emperor uncertain	AE4	uncertain mint	
349	Northwestern corner	4.4096.1056	256611.436	3450308.510	5.174	KAC 357	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
615	Northwestern corner	4.4096.1057	256612.617	3450308.431	5.120	KAC 235	5th century CE	425-435 CE	Theodosius II / Valentinian III	AE4	uncertain mint (Eastern)	
193	Northwestern corner	4.4096.1058	256612.772	3450309.653	5.197	KAC 290	4th century CE		Emperor uncertain	AE3	uncertain mint	
643	Northwestern corner	4.4096.1059	256611.541	3450308.157	5.193	KAC 715	5th century CE		Emperor uncertain	AE4	uncertain mint	
174	Northwestern corner	4.4096.1060	256611.634	3450307.776	5.154	KAC 254	4th century CE		Emperor uncertain	AE3	uncertain mint	
410	Northwestern corner	4.4096.1061	256613.035	3450309.811	5.146	KAC 452	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
533	Northwestern corner	4.4096.1064	256612.839	3450310.033	5.138	KAC 654	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
451	Northwestern corner	4.4096.1065	256612.789	3450310.520	5.132	KAC 517	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
254	Northwestern corner	4.4096.1066	256610.845	3450309.457	5.105	KAC 190	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
730	Northwestern corner	4.4096.1067	256610.975	3450309.505	5.073	KAC 876	5th century CE		Emperor uncertain	AE4	uncertain mint	
702	Northwestern corner	4.4096.1068	256610.664	3450309.994	5.101	KAC 822	5th century CE		Emperor uncertain	AE4	uncertain mint	

650	Northwestern corner	4.4096.1069	256610.747	3450310.197	5.103	KAC 729	5th century CE		Emperor uncertain	AE4	uncertain mint	
371	Northwestern corner	4.4096.1070	256610.795	3450310.532	5.080	KAC 400	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
16	Northwestern corner	4.4096.1071	256609.221	3450308.300	5.219	KAC 16	2nd-1st century BCE		Ptolemies			
338	Northwestern corner	4.4096.1072	256611.558	3450309.261	4.991	KAC 336	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	
734	Northwestern corner	4.4096.1073	256611.591	3450309.339	4.966	KAC 884	5th century CE		Emperor uncertain	AE4	uncertain mint	
383	Northwestern corner	4.4096.1074	256611.240	3450309.583	4.973	KAC 417	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
394	Northwestern corner	4.4096.1075	256610.762	3450310.089	5.076	KAC 432	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
666	Northwestern corner	4.4096.1076	256610.820	3450310.577	5.037	KAC 765	5th century CE		Emperor uncertain	AE4	uncertain mint	
377	Northwestern corner	4.4096.1077	256610.780	3450310.733	5.035	KAC 410	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
468	Northwestern corner	4.4096.1078	256611.676	3450310.621	5.056	KAC 542	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
484	Northwestern corner	4.4096.1079	256611.571	3450306.085	5.259	KAC 566	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
520	Northwestern corner	4.4096.1080	256612.512	3450310.718	4.927	KAC 628	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
712	Northwestern corner	4.4096.1081	256612.987	3450310.450	5.131	KAC 840	5th century CE		Emperor uncertain	AE4	uncertain mint	
374	Northwestern corner	4.4096.1082	256613.121	3450310.059	5.190	KAC 404	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
715	Northwestern corner	4.4096.1083	256611.545	3450311.172	4.996	KAC 844	5th century CE		Emperor uncertain	AE4	uncertain mint	
493	Northwestern corner	4.4096.1100	256609.793	3450308.395	5.132	KAC 579	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
170	Northwestern corner	4.4096.1105	256611.090	3450304.738	5.097	KAC 248	4th century CE		Emperor uncertain	AE3	uncertain mint	
35	Northwestern corner	4.4096.1114	256609.745	3450308.108	5.037	KAC 46	3rd century CE	291 CE	Diocletian	antoninianus		
80	Northwestern corner	4.4096.1115	256610.477	3450306.558	4.954	KAC 75	4th century CE	347-348 CE	Costans/Constantius II (before 348 CE)	follis		
178	Northwestern corner	4.4096.1116	256611.019	3450304.730	4.945	KAC 259	4th century CE		Emperor uncertain	AE3	uncertain mint	
380	Northwestern corner	4.4096.1117	256610.510	3450304.574	4.878	KAC 413	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
545	Northwestern corner	4.4096.1118	256610.444	3450304.687	4.891	KAC 676	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
766	Northwestern corner	4.4096.1119	256610.275	3450304.918	4.890	KAC 935	5th century CE		Emperor uncertain	AE4	uncertain mint	
184	Northwestern corner	4.4096.1121	256610.332	3450307.016	4.889	KAC 278	4th century CE		Emperor uncertain	AE3	uncertain mint	
378	Northwestern corner	4.4096.1130	256610.133	3450310.285	5.199	KAC 411	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
663	Northwestern corner	4.4096.1133	256610.424	3450310.731	5.162	KAC 757	5th century CE		Emperor uncertain	AE4	uncertain mint	
580	Northwestern corner	4.4096.1146	256611.062	3450304.668	4.891	KAC 672	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
563	Northwestern corner	4.4097.1089	256610.448	3450310.230	5.026	KAC 462	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
530	Northwestern corner	4.4097.1113	256610.580	3450309.780	4.976	KAC 647	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	1 of 2
828	Northwestern corner	4.4097.1113	256610.580	3450309.780	4.976	KAC 909	5th century CE		Emperor uncertain	AE4	uncertain mint	2 of 2
600	Northwestern corner	4.4097.1120	256611.041	3450309.421	4.935	KAC 216	5th century CE	406-408 CE	Arcadius / Honorius / Theodosius II	AE3	mint of Heraclea/Nicomedia/Cyzicus	
579	Northwestern corner	4.4097.1126	256612.526	3450309.603	4.809	KAC 659	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	

572	Northwestern corner	4.4097.1127	256612.170	3450309.782	4.797	KAC 593	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
206	Northwestern corner	4.4097.1128	256610.445	3450309.244	4.810	KAC 244	4th century CE		Emperor uncertain	AE2	uncertain mint	
570	Northwestern corner	4.4097.1131	256611.638	3450307.767	4.897	KAC 537	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
573	Northwestern corner	4.4097.1132	256611.673	3450307.640	4.899	KAC 606	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
575	Northwestern corner	4.4097.1138	256611.939	3450307.088	4.878	KAC 612	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
100	Northwestern corner	4.4097.1144	256610.246	3450309.352	4.820	KAC 97	4th century CE	350-361 CE	Constantius II (after 348 CE)	AE3		
456	Northwestern corner	4.4099.1164	256613.092	3450305.608	5.343	KAC 527	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
205	Under House Room B	4.4101.1207	256620.087	3450299.282	3.168	KAC 243	4th century CE		Emperor uncertain	AE2	uncertain mint	
107	Street	4.4110.1226	256616.526	3450305.371	5.695	KAC 113	4th century CE	355-363 CE	Constantius II/Constantius II for Julian III/Julian III	AE4		
103	Street	4.4110.1228	256617.281	3450303.564	5.612	KAC 107	4th century CE	350-361 CE	Constantius II/Constantius II for Constantius Gallus/Constantius II for Julian II	AE3		
641	Street	4.4110.1229	256616.756	3450305.120	5.665	KAC 711	5th century CE		Emperor uncertain	AE4	uncertain mint	
727	Street	4.4110.1234	256619.342	3450306.440	5.623	KAC 871	5th century CE		Emperor uncertain	AE4	uncertain mint	
240	Street	4.4110.1235	256619.308	3450305.831	5.577	KAC 169	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
340	Street	4.4110.1242	256621.679	3450306.455	5.639	KAC 338	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	
152	Street	4.4110.1245	256622.601	3450307.317	5.683	KAC 145	4th century CE	388-395 CE	Arcadius	AE4	mint of Alexandria	
121	Street	4.4110.1246	256621.700	3450305.453	5.546	KAC 127	4th century CE	364-383 CE	Uncertain	AE3		
334	Street	4.4110.1247	256618.868	3450306.072	5.441	KAC 331	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	
494	Street	4.4110.1253	256623.367	3450307.625	5.661	KAC 580	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
243	Street	4.4110.1254	256623.663	3450307.395	5.590	KAC 176	4th-5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
61	Street	4.4110.1255	256617.195	3450305.153	5.529	KAC 57	4th century CE	313-315 CE	Constantine I	follis		
4	Street	4.4110.1258	256614.843	3450304.660	5.451	KAC 31	1st-2nd century CE		Emperor uncertain			
76	Street	4.4110.1268	256612.430	3450302.031	5.477	KAC 71	4th century CE	337-347 CE	Constantine II/Constantius II	follis		
189	Street	4.4110.1270	256624.953	3450307.382	5.705	KAC 284	4th century CE		Emperor uncertain	AE3	uncertain mint	
487	Street	4.4110.1271	256624.885	3450307.906	5.634	KAC 570	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
706	Street	4.4110.1272	256626.882	3450308.320	5.610	KAC 831	5th century CE		Emperor uncertain	AE4	uncertain mint	
441	Street	4.4110.1275	256629.255	3450309.009	5.460	KAC 505	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
548	Street	4.4110.1276	256629.659	3450308.516	5.454	KAC 679	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
440	Street	4.4110.1278	256628.581	3450309.057	5.442	KAC 503	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	

416	Street	4.4110.1279	256629.084	3450309.005	5.358	KAC 463	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
699	Street	4.4110.1280	256629.149	3450309.262	5.401	KAC 818	5th century CE		Emperor uncertain	AE4	uncertain mint	
390	Street	4.4110.1282	256625.650	3450305.186	5.749	KAC 428	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
767	Street	4.4110.1284	256627.115	3450306.589	5.627	KAC 936	5th century CE		Emperor uncertain	AE4	uncertain mint	
508	Street	4.4110.1285	256627.155	3450306.684	5.628	KAC 602	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
447	Street	4.4110.1286	256627.286	3450306.789	5.582	KAC 513	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
614	Street	4.4110.1288	256626.979	3450305.986	5.737	KAC 234	5th century CE	425-435 CE	Theodosius II / Valentinian III	AE4	uncertain mint (Eastern)	
601	Street	4.4110.1289	256627.004	3450306.919	5.565	KAC 217	5th century CE	406-408 CE	Arcadius / Honorius / Theodosius II	AE3	mint of Heraclea/Nicomedia/Cyzicus	
554	Street	4.4110.1290	256628.227	3450307.898	5.433	KAC 690	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
397	Street	4.4110.1291	256629.013	3450307.766	5.358	KAC 435	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
323	Street	4.4110.1292	256624.674	3450306.095	5.722	KAC 315	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	
627	Amphorae Storage Room B	4.4123.1412	256613.657	3450312.976	5.456	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	
628	Amphorae Storage Room B	4.4123.1413	256615.990	3450314.663	5.285	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	
128	Amphorae Storage Room B	4.4123.1426	256615.907	3450313.829	5.082	KAC	late 4th century CE	378-383 CE	Gratian	AE3	uncertain mint	
17	Amphorae Storage Room B	4.4123.1428	256615.472	3450314.917	4.992	KAC	2nd-1st century BCE		Emperor uncertain	Bronze	mint of Alexandria (?)	
236	Amphorae Storage Room B	4.4123.1430	256613.742	3450313.296	5.109	KAC	late 4th-early 5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
307	Amphorae Storage Room B	4.4123.1432	256613.314	3450313.533	5.185	KAC	end of 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
153	Amphorae Storage Room B	4.4123.1433	256614.411	3450313.849	4.996	KAC	end of 4th century CE	388-395 CE	Emperor uncertain	AE4	uncertain mint (Eastern)	
238	Amphorae Storage Room B	4.4123.1498	256615.801	3450313.910	4.972	KAC	late 4th-beginning of 5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	Inside amphora 7
308	Amphorae Storage Room B	4.4123.1499	256615.805	3450313.945	4.971	KAC	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
309	Amphorae Storage Room B	4.4123.1500	256615.826	3450313.993	4.960	KAC	4th-5th century CE		Emperor uncertain	AE3	uncertain mint	Inside amphora 7
166	Amphorae Storage Room B	4.4123.1512	256614.938	3450313.666	4.840	KAC	4th century CE		Emperor uncertain	AE3	uncertain mint	Associated with amphora 41
167	Amphorae Storage Room B	4.4123.1513	256614.917	3450313.883	4.781	KAC	4th century CE		Emperor uncertain	AE3	uncertain mint	Inside amphora 43
104	Amphorae Storage Room B	4.4123.1514	256614.820	3450313.917	4.857	KAC	4th century CE	350-388 CE	Emperor uncertain	AE3	uncertain mint	Inside amphora 44
310	Amphorae Storage Room B	4.4123.1515	256614.935	3450314.301	4.812	KAC	end of 4th-beginning of 5th century CE		Emperor uncertain	AE4	uncertain mint	
311	Amphorae Storage Room B	4.4123.1516	256614.812	3450314.122	4.918	KAC	end of 4th-beginning of 5th century CE		Emperor uncertain	AE4	uncertain mint	

272	Amphorae Storage Room B	4.4123.1541	256614.623	3450314.995	5.040	KAC	end of 4th-beginning of 5th century CE	393-403 CE	Honorius	AE4	uncertain mint	Associated with amphora 58
312	Amphorae Storage Room B	4.4123.1544	256614.359	3450314.185	4.787	KAC	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	Inside amphora 67
168	Amphorae Storage Room B	4.4123.1545	256614.200	3450313.565	4.775	KAC	4th century CE		Emperor uncertain	AE3	uncertain mint	Inside amphora 69
313	Amphorae Storage Room B	4.4123.1546	256614.450	3450313.602	4.767	KAC	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
314	Amphorae Storage Room B	4.4123.1552	256614.074	3450314.466	4.778	KAC	end of 4th-beginning of 5th century CE		Emperor uncertain	AE4	uncertain mint	
630	Amphorae Storage Room B	4.4123.1553	256613.768	3450314.088	4.888	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	Inside amphora 85
315	Amphorae Storage Room B	4.4123.1561	256613.558	3450313.738	4.908	KAC	end of 4th-beginning of 5th century CE		Emperor uncertain	AE4	uncertain mint	
133	Amphorae Storage Room B	4.4123.1563	256613.725	3450314.417	4.937	KAC	late 4th century CE	378-388 CE	Emperor uncertain	AE4	uncertain mint	Inside amphora 94
316	Amphorae Storage Room B	4.4123.1566	256614.815	3450314.975	4.872	KAC	end of 4th-beginning of 5th century CE		Emperor uncertain	AE4	uncertain mint	
160	House 'Corridor'	4.4124.1388	256623.896	3450304.407	5.692	KAC	4th century CE		Emperor uncertain	AE3	uncertain mint	
274	House 'Corridor'	4.4124.1389	256623.974	3450304.412	5.680	KAC	end of 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
123	House 'Corridor'	4.4124.1393	256623.443	3450304.073	5.641	KAC	4th century CE	364-388 CE	Emperor uncertain	AE3	uncertain mint	
275	House 'Corridor'	4.4124.1394	256623.724	3450304.150	5.647	KAC	late 4th-early 5th century CE		Emperor uncertain	AE3	uncertain mint	
276	House 'Corridor'	4.4124.1398	256624.315	3450304.444	5.646	KAC	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
161	House 'Corridor'	4.4124.1399	256624.186	3450303.387	5.606	KAC	4th century CE		Emperor uncertain	AE3	uncertain mint	
619	House 'Corridor'	4.4125.1408	256622.293	3450303.582	5.525	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	
237	House 'Corridor'	4.4125.1438	256622.678	3450302.820	5.472	KAC	late 4th-early 5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
629	House 'Corridor'	4.4125.1441	256622.375	3450303.621	5.114	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	
279	Robbers' Trench	4.4126SL001.1454	256626.844	3450295.615	6.169	KAC	end of 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
281	Robbers' Trench	4.4126SL001.1463	256628.390	3450292.497	6.045	KAC	end of 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
55	Robbers' Trench	4.4126SL001.1465	256630.045	3450293.226	6.003	KAC	end of 3rd-early 4th century CE	296-306 CE	1st Tetrarchy	follis	uncertain mint	radiated fraction of follis
56	Robbers' Trench	4.4126SL001.1470	256630.934	3450293.714	5.929	KAC	end of 3rd-early 4th century CE	296-306 CE	1st Tetrarchy	follis	uncertain mint	radiated fraction of follis
84	Robbers' Trench	4.4126SL001.1473	256632.905	3450294.765	5.902	KAC	mid-4th century CE	350-361 CE	Constantius II	AE3	uncertain mint	
289	Robbers' Trench	4.4126SL001.1542	256633.862	3450296.410	5.931	KAC	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
290	Robbers' Trench	4.4126SL001.1548	256627.477	3450293.332	6.215	KAC	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
621	Robbers' Trench	4.4126SL001.1549	256629.633	3450301.752	5.741	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	
164	Robbers' Trench	4.4126SL001.1550	256627.403	3450293.594	6.124	KAC	4th century CE		Emperor uncertain	AE3	uncertain mint	
291	Robbers' Trench	4.4126SL001.1551	256626.895	3450293.810	6.154	KAC	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	

292	Robbers' Trench	4.4126SL001.1554	256627.018	3450295.365	6.046	KAC	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
270	Robbers' Trench	4.4126SL001.1559	256624.948	3450299.222	5.827	KAC	late 4th-beginning of 5th century CE	388-403 CE	Valentinian II / Arcadius / Honorius	AE4	uncertain mint	
163	Robbers' Trench	4.4126SL002.1480	256626.811	3450292.763	5.837	KAC	4th century CE		Emperor uncertain	AE3	uncertain mint	
227	Robbers' Trench	4.4126SL002.1484	256627.608	3450292.429	5.843	KAC	late 4th-early 5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
282	Robbers' Trench	4.4126SL002.1486	256630.265	3450293.406	5.761	KAC	end of 4th-beginning of 5th century CE		Emperor uncertain	AE4	uncertain mint	
283	Robbers' Trench	4.4126SL002.1488	256631.810	3450294.172	5.709	KAC	end of 4th-beginning of 5th century CE		Emperor uncertain	AE4	uncertain mint	
41	Robbers' Trench	4.4126SL003.1493	256627.532	3450293.168	5.745	KAC	end of 3rd century CE	297-297 CE	Diocletian	follis	mint of Alexandria	radiated fraction of follis
65	Robbers' Trench	4.4126SL003.1506	256631.036	3450294.066	5.542	KAC	4th century CE	317 CE	Constantine I	follis	mint of Treviri	
85	Robbers' Trench	4.4126SL004.1517	256625.364	3450303.797	5.591	KAC	4th century CE	350-361 CE	Constantius II	AE3	uncertain mint	
154	Robbers' Trench	4.4126SL004.1518	256625.418	3450304.674	5.595	KAC	late 4th century CE	388-395 CE	Theodosius I	AE4	uncertain mint	
285	Robbers' Trench	4.4126SL004.1526	256626.725	3450304.330	5.582	KAC	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
286	Robbers' Trench	4.4126SL005.1531	256627.577	3450304.825	5.535	KAC	end of 4th-beginning of 5th century CE		Emperor uncertain	AE4	uncertain mint	
595	Robbers' Trench	4.4126SL005.1533	256627.365	3450304.815	5.525	KAC	end of 4th-beginning of 5th century CE	395-401 CE	Arcadius / Honorius	AE3	uncertain mint (Eastern)	
287	Robbers' Trench	4.4126SL005.1534	256627.000	3450304.400	5.513	KAC	4th-beginning of 5th century CE		Emperor uncertain	AE4	uncertain mint	
288	Robbers' Trench	4.4126SL005.1535	256626.806	3450304.306	5.522	KAC	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
622	Robbers' Trench	4.4126SL006.1591	256623.128	3450301.192	5.136	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	
278	House Southeastern Courtyard	4.4127.1451	256629.180	3450292.364	6.291	KAC	4th-early 5th century		Emperor uncertain	AE3	uncertain mint	
620	House Southeastern Courtyard	4.4127.1452	256629.136	3450292.403	6.284	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	
162	House Southeastern Courtyard	4.4127.1453	256629.274	3450292.783	6.275	KAC	4th century CE		Emperor uncertain	AE3	uncertain mint	
280	House Southeastern Courtyard	4.4127.1455	256628.972	3450292.490	6.289	KAC	end of 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
267	House Southeastern Courtyard	4.4127.1851	256628.087	3450294.343	6.243	KAC	late 4th-beginning of 5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
37	House Southeastern Courtyard	4.4127.1855	256628.662	3450294.640	6.194	KAC	late 3rd century CE	293-294 CE	Maximian	tetradrachm	mint of Alexandria	
277	House Southeastern Courtyard	4.4128.1446	256634.435	3450294.733	6.231	KAC	end of 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	
40	House Southeastern Courtyard	4.4129.1355	256628.204	3450297.520	6.052	KAC	late 3rd century CE	296-297 CE	Maximian	follis	mint of Alexandria	radiated fraction of follis
30	House Southeastern Courtyard	4.4131.1921	256630.627	3450298.825	5.976	KAC	late 3rd century CE	285-286 CE	Diocletian	tetradrachm	mint of Alexandria	
221	House Southeastern Courtyard	4.4131.1954	256629.850	3450296.694	6.011	KAC	4th century CE		Emperor uncertain	AE4	uncertain mint	

3	House Southeastern Courtyard	4.4132.1870	256629.910	3450294.973	5.984	KAC	1st-2nd century CE		Emperor uncertain	bronze	mint of Alexandria	truncated conical rod with fusion codules
284	House Southeastern Courtyard	4.4133.1523	256625.884	3450303.613	5.864	KAC	end of 4th-beginning of 5th century CE		Emperor uncertain	AE4	uncertain mint	
228	House Southeastern Courtyard	4.4133.1524	256625.893	3450303.704	5.864	KAC	late 4th-early 5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
293	East of Robbers' Trench	4.4136.1606	256630.960	3450303.797	5.731	KAC	4th-beginning of 5th century CE		Emperor uncertain	AE3	uncertain mint	
294	East of Robbers' Trench	4.4136.1609	256629.185	3450305.314	5.588	KAC	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
295	East of Robbers' Trench	4.4136.1611	256630.093	3450304.084	5.591	KAC	4th-5th century CE		Emperor uncertain	AE4???	uncertain mint	
229	East of Robbers' Trench	4.4136.1612	256629.805	3450306.233	5.573	KAC	late 4th-early 5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
623	East of Robbers' Trench	4.4136.1613	256629.200	3450304.946	5.496	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	2 fragments reassembleable
624	East of Robbers' Trench	4.4136.1619	256629.420	3450304.619	5.501	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	
296	East of Robbers' Trench	4.4136.1625	256629.069	3450305.586	5.451	KAC	end of 4th-beginning of 5th century CE		Emperor uncertain	AE4	uncertain mint	
625	East of Robbers' Trench	4.4136.1626	256630.178	3450305.632	5.461	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	2 fragments reassembleable
297	East of Robbers' Trench	4.4136.1627	256631.740	3450304.313	5.581	KAC	4th-early 5th century		Emperor uncertain	AE3	uncertain mint	
132	East of Robbers' Trench	4.4136.1629	256631.390	3450303.978	5.494	KAC	late 4th century CE	378-388 CE	Emperor uncertain	AE4	uncertain mint	
298	East of Robbers' Trench	4.4138.1630	256629.820	3450303.869	5.412	KAC	end of 4th-beginning of 5th century CE		Emperor uncertain	AE4	uncertain mint	
48	Third Building	4.4144.1654	256626.001	3450292.048	5.764	KAC	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	fragment of coin
60	Over Third Building	4.4148.1674	256626.338	3450294.126	6.130	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	
24	Over Third Building	4.4149.1679	256625.899	3450293.635	6.024	KAC	late 3rd century CE	281-282 CE	Probus	tetradrachm	mint of Alexandria	
25	Area between House and Third Building	4.4152.1697	256623.375	3450292.782	5.764	KAC	late 3rd century CE	282-283 CE	Carus	antonianus	mint of Antioch	
2	Area between House and Third Building	4.4155.2011	256621.141	3450294.053	5.525	KAC	1st century CE	72-73 CE	Titus	bronze	mint of Alexandria	
320	Over Glass Kilns	4.4156.1708	256620.136	3450290.902	6.035	KAC	end of 4th-beginning of 5th century CE		Emperor uncertain	AE4	uncertain mint	
77	Third Building	4.4158.1743	256623.332	3450292.099	5.598	KAC	4th century CE	340 CE	Constans II	follis	mint of Alexandria	
319	Third Building	4.4160.1783	256622.532	3450291.427	5.475	KAC	3rd-1st centuries BCE					strange non-Ptolemaic or Ptolemaic Greek series 1-2 series (extremely worn)
583	Third Building	4.4161.1800	256622.835	3450290.186	5.458	KAC	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	
632	Sebakheen Pit?	4.4163.1762	256619.034	3450292.038	4.543	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	
584	Sebakheen Pit?	4.4163.1763	256619.028	3450292.064	4.546	KAC	end of 4th-beginning of 5th century CE		Emperor uncertain	AE4	uncertain mint	two recomposable fragments
22	Sebakheen Pit?	4.4171.1784	256617.197	3450290.001	2.678	KAC	late 3rd century CE	280-281 CE	Probus	tetradrachm	mint of Alexandria	

821	Third Building	4.4173.1862	256626.121	3450291.495	5.196	KAC	4th century CE	312-318 CE	Licinius and Constantine	follis	uncertain mint	
822	Third Building	4.4174.1806	256624.830	3450291.857	5.326	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	
39	House Southeastern Courtyard	4.4189.1908	256629.674	3450296.902	6.077	KAC	end of 3rd century CE	296-297 CE	Diocletian / Maximian	radiate fraction	mint of Antioch or Alexandria	
20	House Southeastern Courtyard	4.4191.1969	256630.952	3450297.801	5.959	KAC	mid-3rd century CE	253-268 CE	Gallienus	bronze	mint of Alexandria Troas/Troas	
33	House Southeastern Courtyard	4.4191.1979	256632.481	3450295.896	5.906	KAC	late 3rd century CE	288-289 CE	Diocletian	tetradrachm	mint of Alexandria	
28	House Southeastern Courtyard	4.4191.1981	256629.830	3450295.846	5.730	KAC	late 3rd century CE	283-284 CE	Numerian	tetradrachm	mint of Alexandria	
15	House Southeastern Courtyard	4.4193.1949	256629.927	3450295.898	5.995	KAC	2nd-1st century BCE		Emperor uncertain	bronze	mint of Alexandria	Found togeher with two other fragments of bronze coins, maybe of pin?
68	House Southern Addition	4.4198.2024	256627.510	3450296.691	5.653	KAC	4th century CE	321 CE	Constantine I for Crispus	follis	mint of Arles	
222	Area between Southeastern Courtyard, House, and Street	4.4208.2046	256626.501	3450302.464	5.764	KAC	4th century CE		Emperor uncertain	AE3	uncertain mint	
119	Area between Southeastern Courtyard, House, and Street	4.4208.2047	256626.958	3450302.465	5.866	KAC	4th century CE	364-383 CE	Emperor uncertain	AE4	uncertain mint	
585	Area between Southeastern Courtyard, House, and Street	4.4208.2048	256626.803	3450302.867	5.844	KAC	end of 4th-beginning of 5th century CE		Emperor uncertain	AE4	uncertain mint	
823	Area between Southeastern Courtyard, House, and Street	4.4208.2050	256626.533	3450303.284	5.791	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	
586	Area between Southeastern Courtyard, House, and Street	4.4208.2056	256627.642	3450302.393	5.955	KAC	end of 4th-beginning of 5th century CE		Emperor uncertain	AE4	uncertain mint	
141	Area between Southeastern Courtyard, House, and Street	4.4208.2057	256627.061	3450303.678	5.748	KAC	4th century CE	378-388 CE	Emperor uncertain	AE4	uncertain mint	
268	Area between Southeastern Courtyard, House, and Street	4.4208.2059	256627.069	3450303.970	5.763	KAC	late 4th-beginning of 5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
86	Area between Southeastern Courtyard, House, and Street	4.4208.2060	256626.199	3450303.467	5.725	KAC	mid-4th century CE	350-361 CE	Constantius II	AE3	uncertain mint	
148	Area between Southeastern Courtyard, House, and Street	4.4208.2062	256626.120	3450301.720	5.923	KAC	late 4th century CE	383-395 CE	Theodosius I	AE4	uncertain mint	tosato?
589	Area between Southeastern Courtyard, House, and Street	4.4208.2063	256626.203	3450301.761	5.887	KAC	end of 4th-beginning of 5th century CE		Emperor uncertain	AE4	uncertain mint	

224	Area between Southeastern Courtyard, House, and Street	4.4208.2064	256626.596	3450303.514	5.748	KAC	second half of 4th century		Emperor uncertain	AE4 (tosata?)	uncertain mint	
111	Area between Southeastern Courtyard, House, and Street	4.4208.2065	256626.666	3450303.528	5.741	KAC	4th century CE	364-375 CE	Valentinian I / Valens / Gratian	AE3	mint of Alexandria	
590	Area between Southeastern Courtyard, House, and Street	4.4208.2069	256627.581	3450302.281	5.867	KAC	end of 4th-beginning of 5th century CE		Emperor uncertain	AE4	uncertain mint	
591	Area between Southeastern Courtyard, House, and Street	4.4208.2070	256627.618	3450302.776	5.893	KAC	end of 4th-beginning of 5th century CE		Emperor uncertain	AE4	uncertain mint	
824	Area between Southeastern Courtyard, House, and Street	4.4212.2075	256627.216	3450303.565	5.595	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	
825	Area between Southeastern Courtyard, House, and Street	4.4212.2076	256628.395	3450303.907	5.565	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	
826	Area between Southeastern Courtyard, House, and Street	4.4212.2085	256627.463	3450304.416	5.483	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	
269	Area between Southeastern Courtyard, House, and Street	4.4212.2088	256627.761	3450304.887	5.337	KAC	late 4th-beginning of 5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	
23	House Room C	4.4215.2105	256626.322	3450297.769	5.873	KAC	late 3rd century CE	281-282 CE	Probus	tetradrachm	mint of Alexandria	
52	House Room C	4.4215.2178	256623.248	3450297.917	5.816	KAC	3rd-2nd century BCE		Ptolemies	bronze	mint of Alexandria	
9	House Room C	4.4219.2131	256625.664	3450300.662	5.440	KAC	2nd century CE	126-127 CE	Hadrian	bronze	mint of Alexandria	Sebennytes inferior
27	House Room C	4.4219.2194	256624.63	3450297.137	5.480	KAC	late 3rd century CE	283-284 CE	Carinus	tetradrachm	mint of Alexandria	
32	House Room C	4.4219.2195	256623.383	3450297.577	5.439	KAC	late 3rd century CE	286-287 CE	Maximian	tetradrachm	mint of Alexandria	
42	House Room C	4.4219.2200	256622.816	3450299.169	5.227	KAC	late 3rd century CE	post 283 CE	Carinus and Numerian for 'Divo Caro'	tetradrachm	mint of Alexandria	
1	House Room C	4.4225.2221	256624.821	3450297.132	5.264	KAC	1st century CE	49-51 CE	Claudius?	bronze?	mint of Alexandria	on top of floor 4220
36	House Room C	4.4228.2377	256624.840	3450301.245	4.305	KAC	late 3rd century CE	291-292 CE	Maximian	tetradrachm	mint of Alexandria	over floor F4229
14	Outside Roman Room	4.4240.2354	256624.89	3450297.16	3.541	KAC	mid-2nd century CE	157-158 CE	Antoninus Pius	bronze	mint of Alexandria	
53	Roman Room	4.4285.2564	256625.201	3450300.309	3.541	KAC	3rd-2nd century BCE		Ptolemies	bronze	mint of Alexandria	
49	Roman Room	4.4290.2590	256626.131	3450297.782	3.312	KAC	3rd-1st centuries BCE / 3rd century CE		Emperor uncertain	bronze	mint of Alexandria?	

54	Roman Room	4.4299.2612	256626.464	3450298.034	2.978	KAC	3rd-2nd century BCE		Ptolemies	bronze	mint of Alexandria	

Table 46 List of coin finds that were not registered in situ because they were retrieved from the sieve, the backfill, or found outside the limits of Unit 4. The list categories include the context in which they were found, the ID number (indicating the unit, the feature, and the bag number), the catalogue number assigned by the numismatic team (KAC = Kom al-Ahmer Coins), the dating information, the ruler, type of coin, the mint (if known), and any additional information.

Context	ID	Northing	Easting	Altitude	Catalogue ID	Dating - Century	Dating - Years	Ruler/Emperor	Type	Mint	OTHER	Additional Information
Area of House Room B	4.4014.201	/	/	/	KAC 683	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint		Fragment, ca. 1/4
Amphorae Storage Room E	4.4092.974	/	/	/	KAC 350	4th-5th centuries CE		Emperor uncertain	AE3/AE4	uncertain mint		
Area of House Room B	4.4020.540	/	/	/	KAC 50	end of 3rd century CE	295-299 CE	Constantius I	radiate fraction	mint of Heraclea, Cyzicus, Antioch, Alexandria	SIEVE	1 of 9 coins
Area of House Room B	4.4020.540	/	/	/	KAC 52	3rd-4th centuries CE	295–307	Emperor uncertain	radiate fraction	uncertain mint	SIEVE	1 of 9 coins
Area of House Room B	4.4020.540	/	/	/	KAC 379	4th-5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 9 coins
Area of House Room B	4.4020.540	/	/	/	KAC 572	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 9 coins
Area of House Room B	4.4020.540	/	/	/	KAC 633	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 9 coins
Area of House Room B	4.4020.540	/	/	/	KAO 673	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 9 coins
Area of House Room B	4.4020.540	/	/	/	KAO 686	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 9 coins
Area of House Room B	4.4020.540	/	/	/	KAO 696	early 5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 9 coins
Area of House Room B	4.4020.540	/	/	/	KAO 710	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 9 coins
Northwestern corner	4.4095.1000	/	/	/	KAC 206	late 4th-early 5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 9 coins

Northwestern corner	4.4095.1000	/	/	/	KAC 230	5th century CE	425-435 CE	Theodosius II / Valentinian III	AE4	uncertain mint	SIEVE	1 of 9 coins
Northwestern corner	4.4095.1000	/	/	/	KAC 405	4th-5th centuries CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 9 coins
Northwestern corner	4.4095.1000	/	/	/	KAC 478	4th-5th centuries CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 9 coins
Northwestern corner	4.4095.1000	/	/	/	KAC 761	5th century CE		Emperor uncertain	AE4	Emperor uncertain	SIEVE	1 of 9 coins
Northwestern corner	4.4095.1000	/	/	/	KAC 820	5th century CE		Emperor uncertain	AE4	Emperor uncertain	SIEVE	1 of 9 coins
Northwestern corner	4.4095.1000	/	/	/	KAC 896	5th century CE		Emperor uncertain	AE4	Emperor uncertain	SIEVE	1 of 9 coins
Northwestern corner	4.4095.1000	/	/	/	KAC 907	5th century CE		Emperor uncertain	AE4	Emperor uncertain	SIEVE	1 of 9 coins
Northwestern corner	4.4095.1000	/	/	/	KAC 971	5th century CE		Emperor uncertain	AE4	Emperor uncertain	SIEVE	1 of 9 coins
Northwestern corner	4.4095.1142	/	/	/	KAC 273	4th century CE		Emperor and mint uncertain	AE3	uncertain mint	SIEVE	1 coin
Amphorae Storage Room F	4.4094.989	/	/	/	KAC 957	5th century CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 2 coins
Amphorae Storage Room F	4.4094.989	/	/	/	KAC 549	end of 4th-beginning of 5th century CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 2 coins
Surface Layers	4.4115.1304	/	/	/	KAC	5th century CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE?	1 coin
Amphorae Storage Room F	4.4093.1317	/	/	/	KAC	4th-5th centuries CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE?	1 coin
Amphorae Storage Room F	4.4094.1333	/	/	/	KAC	end of 4th-beginning of 5th century CE		Emperor and mint uncertain	AE4	uncertain mint	NOT IN SITU	1 coin
Surface Layers	4.4116.1343	/	/	/	KAC	5th century CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 coin
House Southeastern Courtyard	4.4119.1356	/	/	/	KAC	end of 3rd century CE	296-297 CE	Diocletian	follis	mint of Alexandria	SIEVE	1 coin
House 'Corridor'	4.4124.1396	/	/	/	KAC	4th century CE		Emperor and mint uncertain	AE3	uncertain mint	SIEVE	1 of 2 coins

House 'Corridor'	4.4124.1396	/	/	/	KAC	5th century CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 2 coins
Amphorae Storage Room B	4.4123.1423	/	/	/	KAC	4th-early 5th century CE		Emperor and mint uncertain	AE3	uncertain mint	SIEVE	1 of 9 coins
Amphorae Storage Room B	4.4123.1423	/	/	/	KAC	end of 4th-beginning of 5th century CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 9 coins
Amphorae Storage Room B	4.4123.1423	/	/	/	KAC	end of 4th-beginning of 5th century CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 9 coins
Amphorae Storage Room B	4.4123.1423	/	/	/	KAC	4th-early 5th century CE		Emperor and mint uncertain	AE3	uncertain mint	SIEVE	1 of 9 coins
Amphorae Storage Room B	4.4123.1423	/	/	/	KAC	end of 4th-beginning of 5th century CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 9 coins
Amphorae Storage Room B	4.4123.1423	/	/	/	KAC	end of 4th-beginning of 5th century CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 9 coins
Amphorae Storage Room B	4.4123.1423	/	/	/	KAC	late 4th century CE	383-388 CE	Arcadius	AE4	uncertain mint	SIEVE	1 of 9 coins
Amphorae Storage Room B	4.4123.1423	/	/	/	KAC	5th century CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 9 coins
Amphorae Storage Room B	4.4123.1423	/	/	/	KAC	5th century CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 9 coins
Robbers' Trench	4.4126SL001.1472	/	/	/	KAC	end of 4th-beginning of 5th century CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 4 coins
Robbers' Trench	4.4126SL001.1472	/	/	/	KAC	1st-2nd century CE		Emperor and mint uncertain	bronze	uncertain mint	SIEVE	1 of 4 coins
Robbers' Trench	4.4126SL001.1472	/	/	/	KAC	5th century CE			AE4	uncertain mint	SIEVE	1 of 4 coins
Robbers' Trench	4.4126SL001.1472	/	/	/	KAC	4th-5th centuries CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 4 coins

Robbers' Trench	4.4126SL002.1485	/	/	/	KAC	1st-2nd century CE		Emperor and mint uncertain	bronze	uncertain mint (provincial)	SIEVE	1 of 5 coins
Robbers' Trench	4.4126SL002.1485	/	/	/	KAC	4th century CE		Emperor and mint uncertain	AE3	uncertain mint	SIEVE	1 of 5 coins
Robbers' Trench	4.4126SL002.1485	/	/	/	KAC	late 4th-early 5th century CE	388-403 CE	Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 5 coins
Robbers' Trench	4.4126SL002.1485	/	/	/	KAC	end of 4th-beginning of 5th century CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 5 coins
Robbers' Trench	4.4126SL002.1485	/	/	/	KAC	5th century CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 5 coins
Robbers' Trench	4.4126SL003.1570	/	/	/	KAC	3rd century CE	286-287 CE	Maximian	tetradrachma	mint of Alexandria	SIEVE	1 of 2 coins
Robbers' Trench	4.4126SL003.1570	/	/	/	KAC	mid-4th century CE	350-361 CE	Constantius II	AE3	uncertain mint	SIEVE	1 of 2 coins
East of Robbers' Trench	4.4135.1598	/	/	/	KAC	5th century CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 coin
East of Robbers' Trench	4.4136.1624	/	/	/	KAC	end of 4th-beginning of 5th century CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 9 coins
East of Robbers' Trench	4.4136.1624	/	/	/	KAC	late 4th-early 5th century CE	388-403 CE	Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 9 coins
East of Robbers' Trench	4.4136.1624	/	/	/	KAC	end of 4th-beginning of 5th century CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 9 coins
East of Robbers' Trench	4.4136.1624	/	/	/	KAC	end of 4th-beginning of 5th century CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 9 coins
East of Robbers' Trench	4.4136.1624	/	/	/	KAC	4th-5th centuries CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 9 coins
East of Robbers' Trench	4.4136.1624	/	/	/	KAC	6th century CE	539-540 CE	Justinian I (?)	nummus	mint of Carthago	SIEVE	1 of 9 coins
East of Robbers' Trench	4.4136.1624	/	/	/	KAC	5th century CE	430-455 CE	Valentinian III / Theodosius II	AE4	uncertain mint	SIEVE	1 of 9 coins

East of Robbers' Trench	4.4136.1624	/	/	/	KAC	5th century CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 9 coins
East of Robbers' Trench	4.4136.1624	/	/	/	KAC	4th-5th centuries CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 9 coins
East of Robbers' Trench	4.4138.1632	/	/	/	KAC	5th century CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 coin
Amphorae Storage Room B	4.4123.1642	/	/	/	KAC	4th century CE	364-388 CE	Emperor and mint uncertain	AE3	uncertain mint	SIEVE	1 of 2 coins
Amphorae Storage Room B	4.4123.1642	/	/	/	KAC	4th century CE	378-388 CE	Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 2 coins
Third Building	4.4144.1653	/	/	/	KAC	mid-4th century CE	347-348 CE	Constans / Constantius II	follis	uncertain mint	SIEVE	1 of 4 coins
Third Building	4.4144.1653	/	/	/	KAC	second half of 4th century CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 4 coins
Third Building	4.4144.1653	/	/	/	KAC	4th century CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 4 coins
Third Building	4.4144.1653	/	/	/	KAC	4th-5th centuries CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 4 coins
Over Third Building	4.4146.1671	/	/	/	KAC	end of 4th-beginning of 5th century CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 coin
Over Glass Kilns	4.4156.1715	/	/	/	KAC	mid-4th century CE	347-348 CE	Sons of Constantine for Constantine (Divo)	follis	mint of Antioch	SIEVE	1 of 6 coins
Over Glass Kilns	4.4156.1715	/	/	/	KAC	late 4th-early 5th century CE	388-403 CE	Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 6 coins
Over Glass Kilns	4.4156.1715	/	/	/	KAC	5th century CE	408-435 CE	Honorius / Valentinian III	AE4	mint of Rome	SIEVE	1 of 6 coins
Over Glass Kilns	4.4156.1715	/	/	/	KAC	4th-5th centuries CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 6 coins

Over Glass Kilns	4.4156.1715	/	/	/	KAC	5th century CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 6 coins
Over Glass Kilns	4.4156.1715	/	/	/	KAC	5th century CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 of 6 coins
Third Building	4.4147.1739	/	/	/	KAC	4th-5th centuries CE		Emperor and mint uncertain	AE4	uncertain mint	SIEVE	1 coin
Third Building	4.4160.1748	/	/	/	KAC	4th century CE	330-336 CE	Family of Constantine for Urbs Roma	follis	uncertain mint	SIEVE	1 coin
Sebakheen Pit?	4.4163.1775	/	/	/	KAC	late 3rd century CE		Emperor uncertain	tetradrachma	uncertain mint	SIEVE	1 coin
House Southeastern Courtyard	4.4129.1820	/	/	/	KAC	1st century CE		Emperor uncertain	bronze	mint of Alexandria	SIEVE	1 coin
House Southeastern Courtyard	4.4178.1835	/	/	/	KAC	1st-2nd century CE		Emperor uncertain	bronze	mint of Alexandria	SIEVE	1 coin
House Southeastern Courtyard	4.4127.1857	/	/	/	KAC	4th century CE	335-347 CE	Family of Constantine	follis	uncertain mint	SIEVE	1 coin
House Southeastern Courtyard	4.4192.1944	/	/	/	KAC	4th-5th centuries CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 coin
House Southeastern Courtyard	4.4191.1966	/	/	/	KAC	1st-2nd century CE		Emperor uncertain	bronze	mint of Alexandria	SIEVE	1 coin
Area between Southeastern Courtyard, House, and Street	4.4208.2068	/	/	/	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 coin
Area between Southeastern Courtyard, House, and Street	4.4208.2072	/	/	/	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 coin
Area between Southeastern Courtyard, House, and Street	4.4212.2082	/	/	/	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 4 coins
Area between Southeastern Courtyard, House, and Street	4.4212.2082	/	/	/	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 4 coins
Area between Southeastern Courtyard, House, and Street	4.4212.2082	/	/	/	KAC	late 4th-early 5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 4 coins

Area between Southeastern Courtyard, House, and Street	4.4212.2082	/	/	/	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 4 coins
House Southeastern Courtyard	4.4191.1985	/	/	/	KAC	late 3rd century CE	283-284 CE	Carinus	tetradrachma	mint of Alexandria	SIEVE	1 coin
House Southeastern Courtyard	4.4131.1960	/	/	/	KAC	late 3rd century CE	292-293 CE	Diocletian	tetradrachma	mint of Alexandria	SIEVE	1 coin
Third Building	4.4144.1778	/	/	/	KAC	mid-4th century CE	347-348 CE	Constans	follis	uncertain mint	SIEVE	1 of 3 coins
Third Building	4.4144.1778	/	/	/	KAC	late 4-th century CE	393-395 CE	Honorius	AE4	mint of Constantinopolis	SIEVE	1 of 3 coins
Third Building	4.4144.1778	/	/	/	KAC	4th-5th centuries CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 3 coins
Third Building	4.4145.1664	/	/	/	KAC	4th century CE	335-336 CE	Family of Constantine for Urbs Roma	follis	mint of Rome	SIEVE	1 coin
House Southern Addition	4.4198.2028	/	/	/	KAC	late 3rd century CE	290-291 CE	Maximian	tetradrachma	mint of Alexandria	SIEVE	1 coin
Area between House and Third Building	4.4155.2005	/	/	/	KAC	3rd century CE	278-279 CE	Probus	tetradrachma	mint of Alexandria	SIEVE	1 of 3 coins
Area between House and Third Building	4.4155.2005	/	/	/	KAC	4th century CE	315 CE	Licinius I	follis	mint of Alexandria	SIEVE	1 of 3 coins
Area between House and Third Building	4.4155.2005	/	/	/	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 3 coins
Under House Room B	4.4081.1175	/	/	/	KAC 22	2nd century CE	129-30 CE	Hadrian	bronze	mint of Alexandria	SIEVE	1 coin
Northwestern corner	4.4097.1122	/	/	/	KAC 59	4th century CE	310-320 CE	Constantine I	follis	uncertain mint	SIEVE	1 of 12 coins
Street	4.4110.1233	/	/	/	KAC 82	mid-4th century CE	351-355 CE	Constantius II	AE2	mint of Alexandria	SIEVE	1 of 11 coins
Amphorae Storage Room C	4.4084.811	/	/	/	KAC 106	mid-4th century CE	350-361 CE	Constantius II / Constantius II for Constantius Gallus / Constantius II for Julian III	AE3	uncertain mint	SIEVE	1 of 23 coins
Northwestern corner	4.4096.1084	/	/	/	KAC 121	4th century CE	364-375 CE	Valentinian I / Valens / Gratian	AE3	mint of Alexandria	SIEVE	1 of 19 coins
Northwestern corner	4.4097.1122	/	/	/	KAC 125	4th century CE	364-383 CE	Emperor uncertain	AE3	uncertain mint	SIEVE	1 of 12 coins

Street	4.4110.1233	/	/	/	KAC 126	4th century CE	364-383 CE	Emperor uncertain	AE3	uncertain mint	SIEVE	1 of 11 coins
Northwestern corner	4.4096.1084	/	/	/	KAC 143	late 4th century CE	388-392 CE	Arcadius	AE4	mint of Constantinopolis	SIEVE	1 of 19 coins
House Room B	4.4022.672	/	/	/	KAC 197	late 4th-early 5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 2 coins
Amphorae Storage Room C	4.4084.811	/	/	/	KAC 215	early 5th century CE	404-406 CE	Arcadius / Honorius / Theodosius II	AE4	uncertain mint (Eastern)	SIEVE	1 of 23 coins
Amphorae Storage Room C	4.4084.811	/	/	/	KAC 277	4th century CE		Emperor uncertain	AE3	uncertain mint	SIEVE	1 of 23 coins
Northwestern corner	4.4097.1122	/	/	/	KAC 281	4th century CE		Emperor uncertain	AE3	uncertain mint	SIEVE	1 of 12 coins
Northwestern corner	4.4097.1122	/	/	/	KAC 285	4th century CE		Emperor uncertain	AE3	uncertain mint	SIEVE	1 of 12 coins
Amphorae Storage Room C	4.4084.811	/	/	/	KAC 292	4th century CE		Emperor uncertain	AE3	uncertain mint	SIEVE	1 of 23 coins
Amphorae Storage Room C	4.4084.811	/	/	/	KAC 294	4th century CE		Emperor uncertain	AE3	uncertain mint	SIEVE	1 of 23 coins
Northwestern corner	4.4096.1084	/	/	/	KAC 299	4th century CE		Emperor uncertain	AE3	uncertain mint	SIEVE	1 of 19 coins
Northwestern corner	4.4096.1084	/	/	/	KAC 300	4th century CE		Emperor uncertain	AE3	uncertain mint	SIEVE	1 of 19 coins
Amphorae Storage Room C	4.4084.811	/	/	/	KAC 348	4th-5th centuries CE		Emperor uncertain	AE3/AE4	uncertain mint	SIEVE	1 of 23 coins
House Room B	4.4070.723	/	/	/	KAC 351	4th-5th centuries CE		Emperor uncertain	AE3/AE4	uncertain mint	SIEVE	1 coin
Northwestern corner	4.4097.1122	/	/	/	KAC 352	4th-5th centuries CE		Emperor uncertain	AE3/AE4	uncertain mint	SIEVE	1 of 12 coins
Northwestern corner	4.4097.1122	/	/	/	KAC 370	4th-5th centuries CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 12 coins
Street	4.4110.1233	/	/	/	KAC 376	4th-5th centuries CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 11 coins
Street	4.4110.1233	/	/	/	KAC 384	4th-5th centuries CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 11 coins
Street	4.4110.1233	/	/	/	KAC 406	4th-5th centuries CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 11 coins
Northwestern corner	4.4097.1122	/	/	/	KAC 418	4th-5th centuries CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 12 coins

Northwestern corner	4.4097.1122	/	/	/	KAC 421	4th-5th centuries CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 12 coins
Northwestern corner	4.4096.1084	/	/	/	KAC 422	4th-5th centuries CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 19 coins
Northwestern corner	4.4096.1084	/	/	/	KAC 468	4th-5th centuries CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 19 coins
Northwestern corner	4.4096.1084	/	/	/	KAC 473	4th-5th centuries CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 19 coins
Street	4.4110.1233	/	/	/	KAC 480	4th-5th centuries CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 11 coins
Northwestern corner	4.4097.1122	/	/	/	KAC 488	4th-5th centuries CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 12 coins
Northwestern corner	4.4096.1084	/	/	/	KAC 495	4th-5th centuries CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 19 coins
House Room B	4.4069.725	/	/	/	KAC 502	4th-5th centuries CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 coin
Northwestern corner	4.4096.1084	/	/	/	KAC 520	4th-5th centuries CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 19 coins
Northwestern corner	4.4096.1084	/	/	/	KAC 521	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 19 coins
Amphorae Storage Room C	4.4084.811	/	/	/	KAC 559	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 23 coins
Street	4.4110.1233	/	/	/	KAC 582	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 11 coins
Northwestern corner	4.4097.1122	/	/	/	KAC 610	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 12 coins
Northwestern corner	4.4096.1084	/	/	/	KAC 615	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 19 coins
Amphorae Storage Room C	4.4084.811	/	/	/	KAC 616	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 23 coins
Amphorae Storage Room C	4.4084.811	/	/	/	KAC 618	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 23 coins
Northwestern corner	4.4096.1084	/	/	/	KAC 625	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 19 coins

Northwestern corner	4.4096.1084	/	/	/	KAC 629	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 19 coins
Northwestern corner	4.4096.1084	/	/	/	KAC 641	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 19 coins
Northwestern corner	4.4096.1084	/	/	/	KAC 643	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 19 coins
Northwestern corner	4.4096.1084	/	/	/	KAC 644	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 19 coins
Amphorae Storage Room C	4.4084.811	/	/	/	KAC 648	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 23 coins
Northwestern corner	4.4096.1084	/	/	/	KAC 660	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 19 coins
Northwestern corner	4.4096.1084	/	/	/	KAC 668	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 19 coins
Northwestern corner	4.4096.1084	/	/	/	KAC 669	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 19 coins
Amphorae Storage Room D	4.4087.903	/	/	/	KAC 674	late 4th-early 5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 coin
Northwestern corner	4.4097.1122	/	/	/	KAC 720	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 12 coins
Amphorae Storage Room C	4.4084.811	/	/	/	KAC 734	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 23 coins
Amphorae Storage Room C	4.4084.811	/	/	/	KAC 742	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 23 coins
Amphorae Storage Room C	4.4084.811	/	/	/	KAC 792	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 23 coins
Amphorae Storage Room C	4.4084.811	/	/	/	KAC 801	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 23 coins
Amphorae Storage Room C	4.4084.811	/	/	/	KAC 806	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 23 coins
Amphorae Storage Room C	4.4084.811	/	/	/	KAC 813	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 23 coins

Street	4.4110.1233	/	/	/	KAC 835	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 11 coins
Amphorae Storage Room C	4.4084.811	/	/	/	KAC 862	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 23 coins
Amphorae Storage Room C	4.4084.811	/	/	/	KAC 877	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 23 coins
Amphorae Storage Room C	4.4084.811	/	/	/	KAC 891	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 23 coins
Northwestern corner	4.4097.1122	/	/	/	KAC 902	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 12 coins
Amphorae Storage Room C	4.4084.811	/	/	/	KAC 930	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 23 coins
Street	4.4110.1233	/	/	/	KAC 951	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 11 coins
Amphorae Storage Room C	4.4084.811	/	/	/	KAC 956	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 23 coins
Amphorae Storage Room C	4.4084.811	/	/	/	KAC 962	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 23 coins
Amphorae Storage Room C	4.4084.811	/	/	/	KAC 963	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 23 coins
Street	4.4110.1233	/	/	/	KAC 973	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 11 coins
House Room B	4.4022.672	/	/	/	KAC 978	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 2 coins
Amphorae Storage Room C	4.4084.798	/	/	/	KAC 854	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE?	1 coin
Amphorae Storage Room C	4.4090.905	/	/	/	KAC 769	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE?	1 coin
Street	4.4110.1233	/	/	/	KAC 991	5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 of 11 coins
House Room C	4.4222.2171	/	/	/	KAC	3rd-1st century BCE / 1st-2nd century CE		Emperor uncertain	bronze	mint of Alexandria?	SIEVE	1 coin
Outside Roman Room	4.4235.2333	/	/	/	KAC	3rd-1st century BCE / 3rd century CE		Emperor uncertain	bronze	mint of Alexandria?	SIEVE	1 coin
House Room C	4.4228.2372	/	/	/	KAC	2nd-1st century BCE		Ptolemies	bronze	mint of Alexandria	SIEVE	1 coin

Roman Room	4.4290.2591	/	/	/	KAC	4th century-mid 5th century CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 coin
Roman Room	4.4299.2613	/	/	/	KAC	4th-5th centuries CE		Emperor uncertain	AE4	uncertain mint	SIEVE	1 coin
House Room C	4.4227.2625	/	/	/	KAC	2nd century CE	134-135 CE	Hadrian	bronze	mint of Alexandria	SIEVE	1 coin
BACKFILL	4.0000.1332	/	/	/	KAC	late 4th-early 5th century CE	395-401 CE	Arcadius / Honorius	AE3	uncertain mint (Eastern)	BACKFILL	1 coin
BACKFILL	4.0000.1437	/	/	/	KAC	5th century CE		Emperor and mint uncertain	AE4	uncertain mint	BACKFILL	1 coin
BACKFILL	4.0000.1440	/	/	/	KAC	mid-4th century Ce	350-361 CE	Constantius II	AE3	uncertain mint	BACKFILL	1 coin
BACKFILL	4.0000.1443	/	/	/	KAC	end of 3rd century CE	296-297 CE	Maximian	follis	mint of Alexandria	BACKFILL	1 coin
BACKFILL	4.4092.1571	/	/	/	KAC	4th-5th centuries CE		Emperor and mint uncertain	AE4	uncertain mint	BACKFILL	1 coin
BACKFILL	4.4092.1572	/	/	/	KAC	late 4th-early 5th century CE	388-403 CE	Emperor and mint uncertain	AE4	uncertain mint	BACKFILL	1 coin
BACKFILL	4.0000.1584	/	/	/	KAC	4th century CE	364-383 CE	Emperor and mint uncertain	AE3	uncertain mint	BACKFILL	1 coin
BACKFILL	4.0000.1647	#####	#####	####	KAC	late 4th century CE	379-383 CE	Theodosius I	AE3	mint of Antioch	BACKFILL	1 coin
BACKFILL	4.0000.1648	#####	#####	####	KAC	second half of 4th century CE		Emperor and mint uncertain	AE4	uncertain mint	BACKFILL	1 coin
BACKFILL	4.0000.2055	#####	#####	####	KAC	1st-2nd century CE		Emperor uncertain	bronze	mint of Alexandria	BACKFILL	truncated conical rod with fusion codules
BACKFILL	4.0000.670	/	/	/	KAC 66	4th century CE	335-347 CE	Family of Constantine I	follis	uncertain mint	BACKFILL	1 coin
BACKFILL	4.0000.2147	/	/	/	KAC	3rd-2nd century BCE		Ptolemies	bronze	mint of Alexandria	BACKFILL	1 of 2 coins
BACKFILL	4.0000.2147	/	/	/	KAC	3rd-1st century BCE		Ptolemies	bronze	mint of Alexandria?	BACKFILL	1 of 2 coins

BACKFILL	4.0000.2148	/	/	/	KAC	3rd-2nd century BCE		Ptolemies	bronze	mint of Alexandria	BACKFILL	1 of 2 coins
BACKFILL	4.0000.2148	/	/	/	KAC	end of 4th-beginning of 5th century CE		Emperor uncertain	AE4	uncertain mint	BACKFILL	1 of 2 coins
BACKFILL	4.4031.2181	3E+06	3E+05	####	KAC	3rd-2nd century BCE		Ptolemies	bronze	mint of Alexandria	BACKFILL	found over wall after clean-up of backfill (together with bag 2182)
BACKFILL	4.4031.2182	3E+06	3E+05	####	KAC	late 4th century CE	378-383 CE	Gratian / Valentinian II / Theodosius I	AE4	mint of Nicomedia	BACKFILL	found over wall after clean-up of backfill (together with bag 2181)
BACKFILL	0.0000.2394	/	/	/	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	TOPSOIL	1 of 2 coins
BACKFILL	0.0000.2394	/	/	/	KAC	end of 4th-beginning of 5th century CE		Emperor uncertain	AE4	uncertain mint	TOPSOIL	1 of 2 coins
BACKFILL	0.0000.2360	/	/	/	KAC	end of 4th-5th century CE		Emperor uncertain	AE4	uncertain mint	TOPSOIL	1 of 4 coins
BACKFILL	0.0000.2360	/	/	/	KAC	end of 4th-5th century CE		Emperor uncertain	AE4	uncertain mint	TOPSOIL	1 of 4 coins
BACKFILL	0.0000.2360	/	/	/	KAC	end of 4th-beginning of 5th century CE		Emperor uncertain	AE4	uncertain mint	TOPSOIL	1 of 4 coins
BACKFILL	0.0000.2360	/	/	/	KAC	end of 4th-beginning of 5th century CE		Emperor uncertain	AE4	uncertain mint	TOPSOIL	1 of 4 coins
SPORADIC FIND OUTSIDE UNIT 4	0.0000.1139	/	/	/	KAC 17	2nd-1st centuries BCE (?)		Ptolemies	bronze	uncertain mint	OUTSIDE U4	1 of 2 coins

SPORADIC FIND OUTSIDE UNIT 4	0.0000.1182	/	/	/	KAC 128	4th century CE	364-383 CE	Emperor uncertain	AE3	uncertain mint	OUTSIDE U4	1 coin
SPORADIC FIND OUTSIDE UNIT 4	0.0000.751	/	/	/	KAC 172	late 4th-beginning of 5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	OUTSIDE U4	1 coin
SPORADIC FIND OUTSIDE UNIT 4	0.0000.085	/	/	/	KAC 196	late 4th-beginning of 5th century CE	388-403 CE	Emperor uncertain	AE4	uncertain mint	OUTSIDE U4	1 coin
SPORADIC FIND OUTSIDE UNIT 4	0.0000.225	/	/	/	KAC 225	5th century CE	425-435 CE	Theodosius II / Valentinian III	AE4	uncertain mint (Eastern)	OUTSIDE U4	1 coin
SPORADIC FIND OUTSIDE UNIT 4	0.0000.769	/	/	/	KAC 239	mid-5th century CE	450-457 CE	Marcian	AE4	uncertain mint (Eastern)	OUTSIDE U4	1 of 2 coins
SPORADIC FIND OUTSIDE UNIT 4	0.0000.1147	/	/	/	KAC 298	4th century CE			AE3	uncertain mint	OUTSIDE U4	1 of 5 coins
SPORADIC FIND OUTSIDE UNIT 4	0.0000.998	/	/	/	KAC 328	4th-5th centuries CE			AE3	uncertain mint	OUTSIDE U4	1 of 5 coins
SPORADIC FIND OUTSIDE UNIT 4	0.0000.nobagnumber	/	/	/	KAC 397	4th-5th centuries CE			AE4	uncertain mint	OUTSIDE U4	1 coin
SPORADIC FIND OUTSIDE UNIT 4	0.0000.1147	/	/	/	KAC 402	4th-5th centuries CE			AE4	uncertain mint	OUTSIDE U4	1 of 5 coins
SPORADIC FIND OUTSIDE UNIT 4	0.0000.936	/	/	/	KAC 444	4th-5th centuries CE			AE4	uncertain mint	OUTSIDE U4	1 of 2 coins
SPORADIC FIND OUTSIDE UNIT 4	0.0000.1063	/	/	/	KAC 451	4th-5th centuries CE			AE4	uncertain mint	OUTSIDE U4	1 coin
SPORADIC FIND OUTSIDE UNIT 4	0.0000.1183	/	/	/	KAC 555	late 4th-early 5th century CE			AE4	uncertain mint	OUTSIDE U4	1 of 3 coins
SPORADIC FIND OUTSIDE UNIT 4	0.0000.1183	/	/	/	KAC 568	late 4th-early 5th century CE			AE4	uncertain mint	OUTSIDE U4	1 of 3 coins
SPORADIC FIND OUTSIDE UNIT 4	0.0000.1154	/	/	/	KAC 589	late 4th-early 5th century CE			AE4	uncertain mint	OUTSIDE U4	1 of 2 coins

SPORADIC FIND OUTSIDE UNIT 4	0.0000.1139	/	/	/	KAC 607	late 4th-early 5th century CE			AE4	uncertain mint	OUTSIDE U4	1 of 2 coins
SPORADIC FIND OUTSIDE UNIT 4	0.0000.694	/	/	/	KAC 608	late 4th-early 5th century CE			AE4	uncertain mint	OUTSIDE U4	1 coin
SPORADIC FIND OUTSIDE UNIT 4	0.0000.1147	/	/	/	KAC 661	late 4th-early 5th century CE			AE4	uncertain mint	OUTSIDE U4	1 of 5 coins
SPORADIC FIND OUTSIDE UNIT 4	0.0000.1183	/	/	/	KAC 682	late 4th-early 5th century CE			AE4	uncertain mint	OUTSIDE U4	1 of 3 coins
SPORADIC FIND OUTSIDE UNIT 4	0.0000.1147	/	/	/	KAC 685	late 4th-early 5th century CE			AE4	uncertain mint	OUTSIDE U4	1 of 5 coins
SPORADIC FIND OUTSIDE UNIT 4	0.0000.201	/	/	/	KAC 740	5th century CE			AE4	uncertain mint	OUTSIDE U4	1 coin
SPORADIC FIND OUTSIDE UNIT 4	0.0000.936	/	/	/	KAC 760	5th century CE			AE4	uncertain mint	OUTSIDE U4	1 of 2 coins
SPORADIC FIND OUTSIDE UNIT 4	0.0000.867	/	/	/	KAC 770	5th century CE			AE4	uncertain mint	OUTSIDE U4	1 coin
SPORADIC FIND OUTSIDE UNIT 4	0.0000.998	/	/	/	KAC 777	5th century CE			AE4	uncertain mint	OUTSIDE U4	1 of 5 coins
SPORADIC FIND OUTSIDE UNIT 4	0.0000.902	/	/	/	KAC 790	5th century CE			AE4	uncertain mint	OUTSIDE U4	1 coin
SPORADIC FIND OUTSIDE UNIT 4	0.0000.769	/	/	/	KAC 829	5th century CE			AE4	uncertain mint	OUTSIDE U4	1 of 2 coins
SPORADIC FIND OUTSIDE UNIT 4	0.0000.998	/	/	/	KAC 830	5th century CE			AE4	uncertain mint	OUTSIDE U4	1 of 5 coins
SPORADIC FIND OUTSIDE UNIT 4	0.0000.998	/	/	/	KAC 849	5th century CE			AE4	uncertain mint	OUTSIDE U4	1 of 5 coins
SPORADIC FIND OUTSIDE UNIT 4	0.0000.1129	/	/	/	KAC 855	5th century CE			AE4	uncertain mint	OUTSIDE U4	1 coin
SPORADIC FIND	0.0000.998	/	/	/	KAC 869	5th century CE			AE4	uncertain mint	OUTSIDE U4	1 of 5 coins

OUTSIDE UNIT 4												
SPORADIC FIND OUTSIDE UNIT 4	0.0000.865	/	/	/	KAC 914	5th century CE			AE4	uncertain mint	OUTSIDE U4	1 coin
SPORADIC FIND OUTSIDE UNIT 4	0.0000.1154	/	/	/	KAC 925	5th century CE			AE4	uncertain mint	OUTSIDE U4	1 of 2 coins
SPORADIC FIND OUTSIDE UNIT 4	0.0000.1147	/	/	/	KAC 940	5th century CE			AE4	uncertain mint	OUTSIDE U4	1 of 5 coins
SPORADIC FIND OUTSIDE UNIT 4	0.0000.1569	/	/	/	KAC	4th century CE	364-383 CE	Emperor uncertain	AE3	uncertain mint	OUTSIDE U4	1 coin
SPORADIC FIND OUTSIDE UNIT 4	0.0000.1578	/	/	/	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	OUTSIDE U4	1 coin
SPORADIC FIND OUTSIDE UNIT 4	0.0000.1780	/	/	/	KAC	5th century CE		Emperor uncertain	AE4	uncertain mint	OUTSIDE U4	1 coin
SPORADIC FIND OUTSIDE UNIT 4	0.0000.2393	/	/	/	KAC	2nd-1st centuries BCE		Ptolemies	bronze	uncertain mint	OUTSIDE U4	1 of 2 coins
SPORADIC FIND OUTSIDE UNIT 4	0.0000.2393	/	/	/	KAC	end of 4th-mid 5th century CE		Emperor uncertain	AE4	uncertain mint	OUTSIDE U4	1 of 2 coins
SPORADIC FIND OUTSIDE UNIT 4	0.0000.2433	/	/	/	KAC	end of 4th-mid 5th century CE		Emperor uncertain	AE4	uncertain mint	OUTSIDE U4	1 coin
SPORADIC FIND OUTSIDE UNIT 4	0.0000.2655	/	/	/	KAC	end of 4th-5th century CE		Emperor uncertain	AE4	uncertain mint	OUTSIDE U4	1 coin

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