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The Early English Factories of South-West India: A Historical Archaeology Perspective

By Paul Mackenzie Mason

Abstract

This thesis presents a historical archaeology perspective on 17th-century Anglo-Indian trade, focussing on twelve factories established in south-west India by the East India Company and a rival body of merchants known as the Courteen Association. The thesis breaks down into three parts. The first chapter defines the parameters, research aims and limitations of the study, before presenting a review of the existing corpus of relevant published literature. The historic background for the period follows in Chapter 2 together with an appraisal of archaeological comparison sites.

The second part of the thesis (Chapters 3-7) sets out the documentary, cartographic, pictorial and physical evidence for a putative typology of factories through which the motivations, catalysts and development of Anglo-Indian trade might be better understood. In doing so the physical characteristics of the factories themselves are discussed and the significance of their architectural form and settings assessed.

In Chapter 8 the third part of the thesis presents a discussion centred on the principal themes to emerge from this evidence. These include aspects of regional and intra-Asian trade, geography, indigenous society and polity, European mercantile and military rivalry, East India Company administration and proto-colonialism. Chapter 9 concludes the study by considering the veracity of the factory typology, reviewing the research aims, assessing the potential for archaeological fieldwork at the factory sites and identifying possibilities for further research in this field.

**THE EARLY ENGLISH FACTORIES OF SOUTH-WEST
INDIA: A HISTORICAL ARCHAEOLOGY PERSPECTIVE**

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2014

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CHAPTER 1: INTRODUCTION

Research Aims and Parameters

Research aims

This thesis aims to further current understanding of pre-colonial Anglo-Indian trade by examining evidence for the physical characteristics and function of twelve English factories founded in the Malabar and Kanara regions of south-west India. Whereas existing historical and economic studies tend to apply the term 'factory' in the most generic sense, here an attempt is made to take the opposite approach and use the factories themselves as the base from which to tackle the subject. Therefore documentary, pictorial and archaeological evidence for the physical form, setting and development of the factories has been assessed and used to construct a putative factory typology. Through analysis of this typology it is hoped that aspects of Anglo-Indian trade and the broader socio-economic and political context in which this trade operated might be better understood.

This historical archaeology approach to the subject therefore brings together an appraisal of evidence for the physical characteristics of the factories themselves with analysis of the many factors which influenced their foundation, maintenance and withdrawal. The specific research aims of the project therefore reflect this duality:

- What were the physical characteristics of a factory in the context of early Anglo-Indian trade and to what degree can factories be assigned types on the basis of these characteristics?
- Assuming types can be assigned to individual factories, were they static designations or did circumstance affect movement between types?
- How were factory sites obtained by the English and what were the principal factors that influenced their setting?
- Why did certain factory sites survive into the 18th century whereas others were withdrawn?
- How was factory-based trade organised and how did factories operate within the dynamics of local, regional and international commerce?
- Is archaeological investigation of the factory sites possible and if so, what might it contribute to our understanding of Anglo-Indian and intra-Asian trade in the 17th century?

The final question is a fundamental one. The thesis will appraise the veracity of the typology and consider what, if any, merit there might be in developing the model for use beyond the initial study area.

Definition of study area

Throughout this thesis the broad geographical label 'south-west India' is applied to the study area. For the purposes of clarity this has been used with impunity to describe the entire stretch of coastline south of the state of Goa, taking in the coastal regions of Karnataka, Kerala and western Tamil Nadu (Figure 1). This has been further divided between Kanara,¹ the only coastal district of Karnataka which occupies the northern part of the south-western littoral and the Malabar which corresponds with the coastal areas of modern-day Kerala and western Tamil Nadu. The term 'Malabar' is in a sense anachronistic but still widely used and understood by historians and has therefore been adopted throughout. It is also the geographical term used most frequently in 17th-century documentary sources and published literature for south-west India. Here, however, its extent is often very loosely defined, sometimes used to describe the entire western coastline of India south of Bombay, other times the entire coast south of Goa. Writers aspiring to greater accuracy often cite 'Mount Delly' (now known as Ezhimala Hill), a prominent landmark lying some 34km north-west of Kannur, as the northern boundary of the Malabar and Cape Comorin its southerly extent.² This is the definition commonly accepted today and has been adopted herein.

Further geographical cohesion is afforded by the administrative organisation of the East India Company in 17th-century India. For much of the period in question, the factories established in Kanara and the Malabar fell within the area governed by first the Surat and later the Bombay Presidencies.

Definition of 'factory' and the factory typology

In the context of 17th-century Anglo-Indian trade, as with all pre-modern usage, the term 'factory' merely applies to the premises in which the 'factors' or agents of a trading company, in this instance the East India Company and Courteen Association, conducted their work. As such it should be noted from the outset that the modern usage of the word does not apply within the timeframe under consideration. A discussion of the origins and context of the term is presented in Chapter 3.

¹ Kanara actually comprises two districts, North Kanara and South Kanara, but for the sake of simplicity 'Kanara' alone is used throughout

² See Herbert 1638, 299



Figure 1: The study area showing the factory locations

The main body of the thesis presents a putative typology of factories, allocating the factory sites of the Kanara and Malabar regions to one (or in some instances two) of four types that have been constructed by the author through assessment of the source material. The types and the rationale of their construction are set out in Chapter 3. The evidence for each of the twelve sites in question is presented and assessed in Chapters 4-7. This evidence takes four principal forms:

- Primary documentary evidence sourced or originating from the British Library's India Office Records. For the most part these are transcripts of original correspondence published across twenty-three volumes known colloquially as the

'English Factory Series'.³ The transcriptions have been supplemented where necessary with examination of original documentation, particularly for the period post-dating 1884

- Maps and pictorial evidence held across various catalogues at the British Library
- The published accounts of visitors to the factories in question
- Walkover and photographic surveys undertaken by the author at the sites of the Kanara factories.

The relative merits and limitations of each of these bodies of evidence is discussed in Chapter 3.

The construction and allocation of the factory typology has also been shaped with recourse to comparative sites. These have been drawn as appropriate from the Indian sub-continent itself and from other European pre/proto-colonial settlements across the world. Many of these sites are presented in the archaeological background section of Chapter 2.

Note on Indian spelling/language conventions

For place-names a distinction is drawn between the Anglicised and modern indigenous variants based on the following rationale. Where factories and associated places are mentioned with reference to their historic roles, the Anglicised version is used (often there are many versions deriving from corruptions, phonetic renderings and mispronunciations of the indigenous name – consistency has been aimed for). Where places are mentioned for locative purposes within the modern-day landscape their modern Indian usage is adopted.

Literature review

Whereas a broad corpus of general narrative histories, theoretical analyses and regional studies for this early period of Anglo-Indian interaction have been published, very little secondary material has focussed on the subject of the English factories themselves. Still by far the most useful body of work, though somewhat unwieldy, are the transcripts of East India Company correspondence spanning the years 1602-1684 which are collected into three series: F C Danvers and W Foster's *Letters received by the East India Company from its servants in the East* (1896-1901, six volumes), W Foster's *The English Factories in India* (1906-1927, thirteen volumes) and C G H Fawcett's *The English Factories in India*,

³ Danvers 1896; Foster 1897-1927; Fawcett 1936-1955

New Series (1936-1955, four volumes). Each volume begins with a historical narrative derived from the transcribed source material; these narratives provide a detailed overview of the English activities in India, including background to the foundation of the various south-west factories.

General histories of the East India Company offer little physical or functional evidence for the factories themselves and architectural studies of British India are equally dismissive of the pre-colonial period. D P Davies' *Splendours of the Raj: British Architecture in India, 1660 to 1947* (1985), dedicates its opening pages to the early factory at Surat but largely ignores the rest of the sub-continent; none of the south-west factories are mentioned. M Archer's paper *Company architects and their influence in India* (1963) is focused entirely on the architecture of the Raj period.

Nothing has been written on the factories of the south-west from an archaeological perspective. M Nambirajan's *Coastal Archaeology of Western India* (2007) disappoints the student of the early modern period; it concentrates mainly on sites in Goa and spans the prehistoric period to the 7th century AD. M V Krishnappa and R Gopal's *Recent Researches in Karnataka Archaeology* (2000) is a collection of seminar papers dealing mainly with epigraphy and numismatics. However K V Jois's contribution, *Recent Researches on the History of Keladi*, combines historical sources with material culture to present an overview of the Keladi Empire (1499-1763) whose kings or Nayakas were sometime trading partners with the English (though the material culture of Indo-European trade is not discussed). Elsewhere, D K Chakrabarti's *The Archaeology of the European Expansion in India, Gujrat c. 16th-18th centuries* (2003) presents a historical framework for a programme of archaeological work in Surat that was never undertaken.⁴ To the knowledge of the author, this is the only dedicated historical archaeological study of an English factory site in India that has ever been attempted.

General historical accounts

Beyond the narratives presented in the introductions of the 'English Factory Series', a very readable history of the Company's exploits in 17th-century India, including brief mention of some of the south-western factories, is provided by J Keay in *The Honourable Company: A History of the English East India Company* (1991). The work is both analytical and apocryphal in tone and draws heavily on the evidence of primary sources including journals, letters and maritime logs. For a history closely focussed on the Company's

⁴ Chris Scarre, pers comm

commercial development, N Robins' *The Corporation that Changed the World: How the East India Company Shaped the Modern Multinational* (2006) has a good, if brief, chapter on the genesis of Anglo-Indian trade and the resultant patterns of export and import.

A number of later 19th- and early 20th-century publications provide satisfactory accounts of the historic events unfolding at the time of the English arrival in south-west India. These include P Anderson's *The English in Western India* (1856), T Douglas' *Bombay and Western India* (1893), E W West's *History of the Bombay Karnataka: Mussalmán and Marátha A.D. 1300-1800* (1889), J Biddulph's *Pirates of Malabar* (1917) and H G Rawlinson's *British Beginnings in Western India* (1921). Such perspectives on Anglo-Indian regional history appear to have fallen from vogue post-1947, this is in stark contrast to Portuguese and Dutch studies which have proliferated in recent years (see below). There are odd exceptions; I B Watson's paper *The Establishment of English Commerce in North-Western India in the Early Seventeenth Century* (1976) focuses mainly on English trade in Surat but also presents a brief review of trade in the south-west in the first half of the 17th century.

Contemporary travellers accounts

The primary documentary sources and the sparse secondary literature for this period are supplemented by a relatively large body of contemporary travellers' accounts. These writings tend to contain levels of descriptive detail that are absent from the often more specific commercial matters addressed in the Company correspondence and are therefore invaluable. Of these, the writings of three English mariners, Peter Mundy, Edward Barlow and Alexander Hamilton are vital pieces of evidence; their visits to south-west India spanned the years 1628-1655, 1670-1697 and 1688-1723 respectively. Mundy's journals are available in a number of editions but herein the series edited by Sir R C Temple, *The Travels of Peter Mundy in Europe and Asia, 1608-1667* (1907) has been used. Mundy's observations are particularly valuable for details pertaining to the Courteen Association factories at Bhatkal (1637) and Karwar (1639). B Lubbock edited the definitive version of *Barlow's Journal of his Life at Sea in King's Ships, East and West Indiamen, and other Merchantmen from 1659-1703* (1934) which contains numerous short observational and anecdotal descriptions of the Malabar and Kanara coasts together with sketches of various locations including Calicut and Karwar. Alexander Hamilton's *A New Account of the East Indies* (1727) has good descriptions of the later factory sites including Karwar, which he led the relief of during hostilities with the Raja of Sonda in 1717/18.

To these key texts may be added the accounts of Dr John Fryer and a French cleric known as the Abbé Carré, both of whom journeyed to the Malabar in 1672. Fryer's entertaining and sometimes disparaging *A New Account of East-India and Persia* (1698) has good descriptions of the factories at Tanore and Baliapatam in particular. C Fawcett and R Burn's three volume edit of *The Travels of the Abbé Carré in India and the Near East* (1947-48) has similarly good descriptions of the factories at Baliapatam and Karwar and also contains a general appraisal of the English methods of administration and organisation of trade (in addition to his vocational calling, Abbé Carré was an intelligencer whose account was written for the French government). The cleric's countryman and *Compagnie des Indes Orientales* employee Dr Gabriel Dellon also leaves a good account of his visit to the Malabar at this time. His descriptions of Tellicherry, Calicut, Tanore and Baliapatam can be found in *A Voyage to the East Indies* (1698), translated into English by the superbly-named Jodocus Crull.

To these key sources might be added the odd relevant tit-bit from Davies' translation of *The Voyages and Travels of J Albert de Mandelslo* (1669), R Barlow and H Yule's *Diary of William Hedges, Esq 1681-1687* (1887), T Herbert's *Some Years Travels into Divers Parts of African and Asia the Great* (1677), A Lovell's translation of *The Travels of Monsieur De Thevenot, The Third Part: Indostan* (1687), J H Van Linschoten's, *The Voyage of John Huyghen van Linschoten to the East Indies* (1885), J Ovington's *A Voyage to Surat in the Year 1689* (1696) and for fine detail of the Kanara pepper country in the 1620s, G Havers translation of Pietro Della Valle, *The Travels of Sig. Pietro Della Valle, a noble Roman, into East India and Arabia Deserta* (1665).

South-west India in the 16th century

The Portuguese presence in south-west India, which pre-dated that of the English and Dutch by a century, played in key role in shaping the commercial and geo-political landscape in which the newcomers wished to operate. An understanding of this pre-existing situation is therefore an important foundation on which to build any study of Anglo-Indian trade and the placement of factories. The indigenous perspective has been the subject of recent work, much of it pioneered by Indian academics K S Mathew and Pius Malekandathil. Mathew's *Maritime Malabar and the Europeans* (1993) is a collection of papers resulting from a 2002 conference focusing largely on Indo-Portuguese and Dutch interactions, state formation in the Malabar and traditional modes of seafaring/navigation. Malekandathil's contribution, *Maritime Malabar and a Mercantile State: Polity, and State Formation in Malabar under the Portuguese 1498-1663* tackles a number of pertinent

issues also covered by S Subrahmanyam in his article for the *Indian Economic and Social History Review* (1986) entitled *Aspects of State Formation in South India and Southeast Asia, 1500-1650*.

K M Panikkar's *Malabar and the Portuguese* (1929) is a useful, if somewhat dated, starting point for the Portuguese period and includes a discussion of the Malabar prior to their arrival. The work of M N Pearson provides a far more considered viewpoint. *Coastal Western India: Studies from the Portuguese Records* (1981) contains sections on the attempted Portuguese monopoly of the Malabar pepper trade and the reasons for their failure. It also touches on the indigenous organisation of the pepper trade including means of production, distribution and export. In *The Portuguese in India* (1987) Pearson expands on his previous publication to give an overview of the Portuguese involvement in India from Vasco de Gama until 1961. Concentrating largely on political and economic issues, the work also considers the structure of society within the Portuguese dominions and the role of religion.

Turning back to regional economics, J Kieniewicz's study *The Portuguese factory and trade in pepper in Malabar during the sixteenth century* (1969) examines in depth the weakening of the Portuguese position due to their inability to monopolise the pepper market. It also contains a fascinating appraisal of the role of the native merchants who supplied the internal markets and Red Sea routes, often assisted by individual Portuguese traders operating as interlopers. Kieniewicz's study of the Malabar pepper trade is expanded in his paper *Pepper gardens and market in pre-colonial Malabar* (1986) which further defines modes of pepper production and distribution and argues that for the first three hundred years of their presence, the Europeans were unable to affect them and could only compete for the pepper that the indigenous system made available to them.

Whilst much has been published on the Malabar region, Kanara and Karnataka in general remains somewhat neglected by historians. H Shashidhar and N S Murthy's *A Historical Atlas of Karnataka* (2004) contains a useful series of maps showing the territories of the ruling dynasties and governors of the state from 250BC to the present day. One such map, with brief accompanying explanatory text, features the Empire of the Nayakas of Keladi who administered much of the Kanara coastline for the period in question. This empire is discussed in greater length in K V Jois's publication, *The Unforgettable Keladi Empire* (2008).

Indian Ocean Trade

The wider context of Anglo-Indian trade and the markets of the Malabar and Kanara regions in general is covered by a large corpus of published material that can be gathered under the broad umbrella term 'Indian Ocean Trade'. In this category, Niels Steensgaards *The Asian Trade Revolution of the Seventeenth Century: The East India Companies and the Decline of the Caravan Trade* (1974) is still a widely respected seminal work. However, the concept of the 'peddling trade' which Steensgaard uses to characterise intra-Asian commerce prior to the arrival of the European companies has latterly been challenged by Asian scholars such as O Prakash (1998), S Arasaratnam (1994) and K N Chaudhuri (1978) who all point to the powerful and well-connected indigenous merchant groups such as a Gujuati *vaniyas* who had vast revenues at their disposal and deployed large mercantile fleets on the international shipping lanes.

Prakash's *European Commercial Enterprise in Pre-colonial India* (1998), develops themes first voiced in his earlier paper *European trade and South Asian Economies: some regional contrasts, 1600-1800* (1981). It presents a comprehensive overview of Indo-European trade in the wider contexts of Indian Ocean, specifically assessing the impact that the successive arrivals of first the Portuguese and then the European Companies had on pre-existing patterns of both domestic coastal, and intra-Asian oceanic trade routes. Arasaratnam's *Maritime India in the Seventeenth Century* (1994) is similar in scope but contains detailed sections on the traditional character of Malabar and Kanara trade and how these were affected by the arrival of the Portuguese and the European trading companies. Pius Malekandathil in *Indian Ocean in the Shaping of Late Medieval India* (2013), a paper resulting from his Presidential Address to the Medieval Indian History of Indian History Congress, goes further, examining the changes that these shifts in trade patterns had on inland society.

Detailed studies of the development of Anglo-Indian trade with specific focus on the commodities traded are presented in a number of publications. K N Chaudhuri pioneered statistical analysis as an interpretive tool in his paper, *Towards an 'Intercontinental Model': Some Trends in Indo-European Trade in the Seventeenth Century* (1969). His resultant observations informed more comprehensive studies of the period: *The Trading World of Asia and the English East India Company 1660-1770* (1978) and *Trade and Civilisation in the Indian Ocean: An Economic History from the rise of Islam to 1750* (1985). Three published volumes of conference papers cover a wide spectrum of theoretical and statistical approaches to the same subject: L Blusse and F S Gaastra's *Companies and*

Trade (1981), J R Bruijn and F S Gaastra's *Ships, Sailors and Spices: East India Companies and their Shipping in the Sixteenth, Seventeenth and Eighteenth Centuries* (1993) and S Chaudhury and M Morineau's *Merchants, Companies and Trade* (1999), which also revisits the debate surrounding the 'pedlar trade'.

Turning specifically to the Dutch, the background to their period of ascendancy in the Malabar is covered in publications such as Jurrien van Goor's *Prelude to Colonialism: the Dutch in Asia* (2004) and E M Jacobs' *In Pursuit of Pepper and Tea: The Story of the Dutch East India Company* (1991). More detailed analyses of their commercial activities include F S Gaastra and J R Bruijn's paper *The Dutch East India Company's Shipping, 1602-1795* (1993).

CHAPTER 2: HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

Historic Background

The expansion of English factories into the coastal regions of south-west India from the second decade of the 17th century occurred within a complex socio-economic and political framework which, for ease of presentation, can be broken into three broad components: indigenous society and polity, trade and the impact of the Portuguese, and the arrival of the European companies. As will become apparent, however, in order to explain fully the circumstances which enabled the English to successfully establish factories in Kanara and the Malabar, these components cannot be considered in isolation, rather they must be viewed as symbiotic. A brief summary of the empirical evidence is presented below and later discussed in relation to the factories themselves in Chapter 8. The principal locations mentioned in the text are shown in Figure 2.

Indigenous Society and Polity

On the eve of the English arrival in India, the south-west littoral, which lay beyond the Mughal hegemony of the north, exhibited considerable political and social diversity. Kanara is perhaps the more easily understood of the two regions in question. Following the rapid decline of the great empire of Vijayanagar post 1565, its territory was divided between two relatively strong polities, the Muslim Kingdom of Bijapur to the north and the Hindu Empire of the Nayakas of Keladi to the south.⁵ The principal ports of these states (within Kanara) were Karwar and Bhatkal respectively.⁶ The Malabar region was more complex. Here historians generally concur that there were three principal states: Calicut under the Zamorin, Cannanore under the Kolathiri (or King) and the Kingdom of Vernad and Travancore which extended from the historic port of Quilon to Cape Cormorin.⁷ To these might be added Cochin, formerly a dependency of Calicut, which had risen to prominence in the later 16th century.⁸ Beneath these were a plethora of minor princes and chiefs who owed nominal allegiance to one (or more) of one of the principal rulers. These individuals held land in their own right, had large standing armies and sometimes wielded significant power as heads of religious sects. Religion blurred territorial boundaries, with

⁵ Jois 2008; Shashidhar and Murthy 2004

⁶ Prakash 1998, 17-18; Foster 1921, 219; IOR/G/22

⁷ Panikkar 1929, 13

⁸ Subrahmanyam 1986, 358; Panikkar 1929, 8

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some Brahmin royal families exerting both spiritual and secular influence across numerous areas.



Figure 2: The principal locations mentioned in the historic background

As will be seen, this patchwork of rival polities afforded the incoming Europeans opportunities for commercial and political alliance that would not have existed had the south-west been united under a single strong government.

Most of the ruling elite of the Malabar belonged to a group of castes known as *Nairs* (or *Nayars*) who could be found occupying positions across the socio-economic spectra but were traditionally trained for military service. *Nair* castes were also one of the principal groups involved in the production of the region's most important commodity: pepper. They were often landowners whose tenants grew the crop in small market gardens located on the inland foothills of the Western Ghats. From these locales, the pepper was exported by river to the coastal markets, usually through networks orchestrated by Muslim merchants (known as *Moplas* or *Mappillas*), or alternatively taken overland via the Western Ghats to supply the markets of the interior and the Coromandel coast.⁹

The *Mopla* community included linear descendants of immigrant Arab traders, indigenous converts and the progeny of intermarriages between these groups.¹⁰ Prakkash (1998) suggests that the *Mopla* merchants principally handled trade with the East whereas the routes connecting south-west India with the west were overseen by another group of Muslims, the *Pardesi*. These were temporary residents in the port towns of Kanara and the Malabar, heralding from Arabia and beyond.¹¹ Although these groups controlled much of the maritime trade at this period, the organisation of that trade was in fact governed by a quite complicated set of interests. Pearson (1987) observes that whereas ships were largely owned and often crewed by Muslims, Hindus or other denominations could own their cargos.¹² Furthermore, the coastal waters of south-west India were plied by small craft owned by lower caste Hindus undertaking 'country' trade, such as the supply of rice from Kanara to neighbouring regions.

The longevity of the Kanara and Malabar involvement in Indian Ocean trade, which dates back to the Greek and Roman periods, and particularly its location at the juncture of medieval east and west oriented trade routes, accounts for this great ethnic and religious diversity. In addition to the indigenous Hindus and Muslim communities, substantial St Thomas Christian and Jewish communities had been established in the early historical period. The Christian population, originally from Syria but later attracting large numbers of

⁹ Kieniewicz 1969 & 1986

¹⁰ Mayer 1952, 18

¹¹ Prakash 1998, 18

¹² Pearson 1987, 23

converts from Hinduism, was concentrated in Cranganore, Quilon and Cochin where religious tolerance and a degree of political freedom were enjoyed.¹³

The opportunities that were afforded to the Europeans in pre-colonial south-west India and the attitudes of the indigenous elite to the incomers must therefore be viewed in the context of this traditional tolerance for economic immigration and temporary foreign residency.

Trade and the Portuguese

Prakash (1998) provides a useful overview of south-west India's role in the wider Indian Ocean trade network at the time of the Portuguese arrival in Indian waters. The long distance trade routes of previous centuries that had connected the ports of the Far East with Arabia had broken into what Prakash coins 'segmented Asian trade'.¹⁴ Indian ports, previously victualing and lading points on the longer routes, were now key centres of exchange and re-export in their own right. Of the Malabar and Kanara ports Calicut was the pre-eminent international port, oriented principally westwards towards the Persian Gulf and Red Sea but also supplying goods to the East via routes converging at the Bay of Bengal. The main exports from the Malabar were pepper, other spices such as ginger and cardamoms, textiles and coconuts, whereas the main imports were bullion and horses from the West Asia and spices and aromatics from the East.¹⁵ Bhatkal was the principal port in Kanara at this time and like Calicut, its trade was oriented towards west Asia. Its main exports were rice, sugar, iron, textiles, ginger and pepper; its imports were copper, gold and horses from Arabia and Persia.¹⁶

In addition to supplying international markets, the Kanara and Malabar ports also exported goods in small ships along coast-hugging circuits to ports in Gujurat, Sri Lanka and the Coromandel. Agricultural products such as pepper and rice were the predominant commodities shipped in the manner. The trade with Gujurat was particularly important as south-west Indian goods supplied not only the demand of Cambay and its hinterland, but were also re-exported to west Asia by Gujurati merchants.¹⁷

The south Indian rulers who profited from this pre-European trade, such as the Zamorin of Calicut, did so not through use of force but by means of peaceful competition. Ports

¹³ Panikkar 1929, 22

¹⁴ Prakash 1998, 14

¹⁵ Ibid.

¹⁶ Ibid., 17

¹⁷ Ibid., 16

occupying favourable locations in relation to both the trade routes and centres of production were paramount and by offering good facilities for those calling at these ports, the profits derived through the levying of customs duties was guaranteed.¹⁸ This model, however, was soon challenged by the Portuguese.

The Portuguese interest in south-west India, and the Malabar in particular, was a consequence of their desire to sever the Muslim-controlled trade routes that supplied the European markets via the Venetians. But while the commercial impetus for hijacking the trade in Eastern goods was paramount, the role of religion was also an important factor. Portuguese animosity towards Islam had been engendered during their expansion along the North and West African coasts, this religious imperative being manifest in the granting of a Papal Bull of 1441, which gave Portugal sovereign rights to discoveries in Asia and Africa.¹⁹ This combination of commercial, territorial and religious motivations dictated Portuguese policy and brought them into direct conflict with the Zamorin of Calicut from the outset. Successive Zamorins would be formidable opponents of Portuguese interests in the Malabar and later, critically from an English perspective, seek alliance with the East India Company against their mutual foe (see Chapter 8).

Portuguese policy in south-west India had both economic and political repercussions that would later influence the commercial opportunities available to the European companies that followed. Soon after their arrival in 1498, the Portuguese sought to weaken Calicut's position by collaborating with its opponents, most notably the rulers of Cochin who, though technically a vassal state, had long harboured ambitions for independence and even ascendancy.²⁰ Hence the seeds were sown for an alliance that would colour the politics of the region for the following two centuries. The Raja of Cochin welcomed the Portuguese and made concessions for trade; similar offers came from Cannanore and Quilon, setting the precedent for internal division that afforded first the Portuguese and later the Dutch and English a foothold in south-west India.

Despite their best efforts to ferment internal division the Portuguese soon realised that a land conquest of the Malabar was beyond their resources and attention turned to Goa as an alternative base for Indian trade; the island was occupied in late 1510.²¹ Negotiation for peace with Calicut followed and after contriving a scenario that led to the poisoning of the

¹⁸ Pearson 1987 29

¹⁹ Panikkar 1929, 27

²⁰ Ibid., 46

²¹ Pearson 1987, 32

reigning Zamorin, a treaty was signed with his successor in December 1513. Although this peace only lasted until 1525 it effectively marked the end of the Portuguese ambition to conquer the entire Malabar.²²

Goa became the formal capital of Portuguese *Estado da India* in 1530 and the focal point of their efforts to control trade in the Arabian Sea through naval power supported by a string of coastal forts. The principal Portuguese forts on the Malabar and Kanara coasts were Anjediva (initially), Cochin, Cannanore and Quilon. From these and other strongholds the Portuguese sought to enforce a crown monopoly on pepper and to control certain carrier trade routes within the Eastern waters. Based on their claim to sovereignty over the Indian Ocean (no one, the Portuguese argued, had claimed the seas prior to their arrival) they sought to impose taxes on all involved in Indian Ocean trade. All merchant shipping was obliged to obtain a pass or *cartaz* obliging the holder to register their ship with the Portuguese authorities and pay customs at a fort prior to embarkation. A blanket veto was placed on the carrying of spices and any ship found in breach of the rules or sailing without a *cartaz* could be legally confiscated and the crew punished.²³

Later, in an attempt to exert greater control over the sea-lanes, a system of enforced naval escorts was employed. Known as the *cafila* system, large convoys of merchant ships were organised and escorted by Portuguese, ostensibly to protect them from piracy but also to ensure that customs were paid. The *cafila* applied to a number of key trade routes, including that from Goa south to Kanara where rice was acquired for consumption in the capital.²⁴ In practice however, even prior to the arrival of the Dutch and English, the Portuguese were never in a position to realise their aims, particularly with regard to the monopoly of the spice trade. With reference to the *cartaz* and *califa* systems, Steensgaard (1973) views the Portuguese pepper trade as, ‘...a monopoly on a route that was guarded by armed force, not on a commodity.’²⁵ Prakash (1998) asserts that the only trade route that the Portuguese were able to exert any meaningful control over was that from the Malabar to the Red Sea, but by later 16th century this too had revived.²⁶

To the detriment of the Portuguese strategies, pepper continued to be traded east and north from south-west India via overland caravan routes where their systems of control

²² Panikkar 1929, 87

²³ Pearson 1987, 38

²⁴ Ibid., 39

²⁵ Steensgaard 1973, 100

²⁶ Prakash 1998, 46

were non-existent. Similarly, they had no means to control the production of pepper. The efforts of the Zamorin continued to subvert their trade and saw more or less constant warfare between Calicut and their allies on one side and the Portuguese and Cochin on the other. It is against this backdrop of dwindling commercial influence and determined indigenous opposition that the successes of the European companies must be measured.

The European trading companies

The English East India Company (originally 'The Company of Merchants of London trading into the East Indies') and Holland's United East India Company or *Vereenigde Oost-Indische Compagnie* (VOC) were both formed at the turn of the 17th century with the aim of monopolising the import of Eastern goods to their respective parent countries. Both companies initially focused their attention on the Far East but soon turned to India as both a supplier of goods for home markets and also for transshipment to the East where the demand for Indian textiles in particular was great.

The Dutch were the first to enter the Indian market and in doing so implemented a deliberate policy of damaging Portuguese interests by attacking their shipping and collaborating with their enemies, most notably the Zamorin of Calicut with whom treaties were signed in 1604 and 1607.²⁷ Because of the anti-Portuguese policy of the VOC, south-west India played a prominent part in their early policies as part of the wider 'Dutch-Lusitanian war' in Asia, which lasted, with two short periods of truce, from 1597 to 1663.²⁸ The focal point of this struggle in India was Cochin, but naval blockades of all of the Portuguese possessions were commonplace, especially Goa. By the end of the first decade of the 17th century the Dutch had received permission to settle a factory in Calicut.²⁹

English trade with India was initially concentrated in Surat, the principal port of the Mughal Empire on India's Gujarati coast, though its first 'settlement' was north of the mouth of the Tapti River at Swally Hole. Like the Dutch in Calicut, the Company's prestige in the eyes of the Mughal authorities was greatly enhanced by a series of naval victories over the Portuguese in the Bay of Cambay.³⁰ The coastal trading ports of south-west India did not figure prominently in the Company's efforts to establish trade at this time, largely due to Portuguese dominance in this area.

²⁷ Joseph 2003, 297

²⁸ Goor 2004, 52

²⁹ Joseph 2003, 297

³⁰ Keay 1991, 97

The first well-documented Company voyage along the Kanara and Malabar coasts was undertaken in 1613 by a fleet bound for Aceh in Indonesia under the command of Thomas Best. They weighed anchor off Travancore to provision prior to rounding Cape Comorin and there received an offer of trade; Best later reported that the king had wanted to, '*...know whether I would trade with him: which if I would, he offered to lade my shippe with Pepper and Cinamom.*'³¹ The offer was rebuked by Best, but ably demonstrates the failure of the Portuguese to control the Malabar trade and the eagerness of the indigenous rulers to engage with the enemies of their erstwhile tormentors.

Three years later a fleet under Captain William Keeling set sail for Bantam via the Malabar coast and this time the English deliberately sought to establish trade. They arrived at the port of Cranagnore in March 1616 where the Zamorin of Calicut's forces were engaged in a siege of the Portuguese fort. The Zamorin quickly took the initiative, dispatching a letter stating his enmity towards to Portuguese, friendship with England and promises of tax-free trade. Further incentives serve to demonstrate the lengths to which the ruler of Calicut was prepared to go to gain a European ally against the Portuguese: he proposed to take the fort of Cranganore and give it to the English and suggested that they collaborate to attack the Portuguese fort and town of Cochin, which he would also give to them.³²

Whilst the Company were unwilling to become embroiled in these military actions, the opportunity was taken to establish the first English factory in south-west India which comprised '*three factors, a gunner, and a boy*' under the leadership of George Woolman.³³ Finding little trade at Cranganore, they soon moved to Calicut where Woolman subsequently died. A year later an English fleet put into the port to find the factory in a very poor state of upkeep and it was withdrawn.³⁴

For the next two decades English trading ventures in India were focussed within the Mughal territory and the Coromandel Coast. This hiatus in the south-west came to an end in 1637 when a factory was established at Bhatkal in Kanara by a body of merchants financed by Sir William Courteen whose fortune had been built on silk and linen imports from the West Indies.³⁵ For a time this Courteen Association were serious rivals to the East India Company, not least because they operated with the protection of a Royal Charter.

³¹ Purchas 1625, 462

³² Foster 1900, 65

³³ Ibid., 64

³⁴ Ibid., 65

³⁵ Foster 1911, xxxi

The timing of their first venture to India owed little to coincidence. Anglo-Portuguese hostilities had drawn to a close two years previously with the signing of the Convention of Goa, opening the port of Goa to the English together with the Portuguese forts that dotted the Malabar Coast.³⁶ Thus the spice and textile markets of the south-west were effectively made accessible to the English for the first time since their arrival and the Dutch rather than the Portuguese would now become their main competitors.

The timing of the Association's formation was also not coincidental. In January 1635, Captain John Weddell, a prominent Company servant, had sailed with the Surat president William Methwold to broker the Anglo-Portuguese truce. He later carried news of the mission's success back to England together with a series of letters penned by Methwold and his colleagues which contained recommendations for future trade in the south-west. Less than a year later Weddell was in command of the newly-formed Association's first India-bound fleet.³⁷ Among his crew was the mariner Peter Mundy whose diaries are a key source for this early period of Anglo-Indian trade. He documents the circumstances surrounding the foundation of the factory at Bhatkal in some detail, but is less effusive with regard to the establishment of the second Association factory at Karwar in 1639.³⁸

Both factories had been abandoned by 1650 when the Courteen Association merged with the East India Company and the 'United Joint Stock' was formed.³⁹ After surviving a period of crisis following the Civil War, the First Anglo-Dutch War (1652-54) and withdrawal of patronage by the Cromwellian Protectorate, the Company was finally granted a new charter in 1657 which established its first 'permanent joint stock'.⁴⁰ Robins (2006) considers the following three decades to be the Company's boom years - factories were established at Old Kayal (1659), Calicut (1659), Karwar (1662) and Porakad (1662) within a few years of the new charter being granted.⁴¹

The Company's expansion into south-west India at this time, however, was outstripped by the Dutch who began to further their mercantile interests through a series of military expeditions against the Portuguese. Sri Lanka was captured in 1659 and from here attacks were launched on the Malabar forts; Cochin was captured in 1663 and soon the

³⁶ Keay 1991, 108

³⁷ Ibid., 121

³⁸ Temple 1907

³⁹ Robins 2006, 46

⁴⁰ Ibid.

⁴¹ Foster 1915, 218-221; Foster 1923, 29 & 72

Portuguese had been completely ousted from the region.⁴² The Dutch were now firmly established in south-west India and for remainder of 1660s their attempts to monopolise the trade in pepper and *cassia lignum* (Malabar cinnamon) further weakened the Portuguese, and also damaged the English who lost their factories at Old Kayal and Porakad during the Second Anglo-Dutch War of 1665-67.⁴³ English interests in Calicut were also threatened at this time and in reaction a factory was established at nearby Tanore in 1666 which continued to operate as a subsidiary of Calicut until the early 1670s.⁴⁴

The Dutch position was particularly strong south of Cochin, but they were frustrated to the north of the region, largely through the resistance of the Zamorin of Calicut. Of the ensuing shift in regional geo-politics Arasaratnam (1994) observes, '*The pattern of Calicut-Cochin rivalry with the European power protecting Cochin was resumed with Dutch conquest...*'⁴⁵ The Dutch were also active in Kanara where contracts for the supply of rice were negotiated with the Nayakas of Ikkeri and the Bijapur authorities. Kanara pepper was also purchased on the open market in an attempt to out-compete their rivals.⁴⁶

Following the cessation of Anglo-Dutch hostility in 1667, competition for commercial advantage continued and the French also entered the Malabar markets in earnest at this time. At the invitation of the Kolathiri of Cannanore the English established a factory at Baliapatam in 1669 on the site of an 'old Mallabarr fort'.⁴⁷ The Dutch keenly objected; at this point they, like the Portuguese before them, were beginning realise the impossibility of monopolising the Malabar spice trade. Even the petty rajas were now breaking their agreements to trade with English and Indian merchants alike.⁴⁸ Nevertheless Dutch dominance continued; trade at Baliapatam was ruined as a result of the Third Anglo-Dutch War (1672-74) and the death of the pro-English Kolathiri in 1673. The factory was eventually withdrawn in 1675.⁴⁹

Events of the 1680s saw the south-west Indian markets become critical for the prosperity of the English. Firstly, following the loss of Bantam to the Dutch in 1682, the Company's

⁴² See Pearson 1987, 133-38 for a review of these losses and their contribution to the decline of Portuguese power

⁴³ Foster 1925, 89-92

⁴⁴ *Ibid.*, iv

⁴⁵ Arasaratnam 1994, 98

⁴⁶ *Ibid.*, 100

⁴⁷ Foster 1927, 262-67

⁴⁸ Arasaratnam 1994, 102

⁴⁹ Fawcett 1936, xix

last foothold in Indonesia, Malabar and Kanara became the only regions where spices, particularly pepper, could be purchased at source.⁵⁰ Concurrently there was an explosion in European demand for cheap Indian textiles, which were also produced in great quantity in the south-west. Prakash (1998) identifies this period as heralding a pivotal shift in the focus of Indo-European trade suggesting that whereas until c.1680 the importance of Indian goods to the VOC and the Company was their value as exchange goods for intra-Asian trade, from the 1680s onwards they were acquired in their own right to supply European markets.⁵¹

The 1680s also saw the Malabar and Kanara begin to reintegrate wholesale into the traditional west Asian facing markets following the failed attempts of first the Portuguese and then the Dutch to curtail this trade. This was partly due to the rise of Surat as a prominent centre of international trade, particularly its growth as a major re-export market for pepper.⁵² The Dutch were unable to control this, nor were they able to prevent pepper being shipped direct from south-west Indian ports to Persia and Arabia, and east to the Coromandel, either by ship or overland caravan.⁵³ Arasaratnam (1994) concludes,

In the period of Dutch dominance, as in the period of Portuguese dominance, no very drastic change seems to have occurred in the structure of this export trade. The only major change was an expansion in the trade in one specific direction – Europe...⁵⁴

Against this backdrop the English continued to maintain their Kanara factory at Karwar for the remainder of the 17th century, despite the region being wracked by internal warfare, and assert their presence in the Malabar through the establishment of forts at Tellicherry (1682) and later Anjengo (1695).⁵⁵

Archaeological Background

Little or no attempt has been made to study the English factories of south-west India from an archaeological perspective, certainly there is no published work on the subject. Therefore, in the absence of a pre-existing data set various bodies of comparative evidence from sites associated with Indo-European trade and sites with proto-colonial

⁵⁰ Robins 2006, 44

⁵¹ Prakash 1998, 111

⁵² Arasaratnam 1994, 106

⁵³ *Ibid.*, 113

⁵⁴ Arasaratnam 1994, 110

⁵⁵ IOR/G/37 & IOR/G/1 respectively

elements in South Asia and beyond have been consulted. It is hoped that this diverse corpus will provide a framework within which to examine the early factories of the Malabar and Kanara. Therefore, an overview of the current gap in knowledge is first presented, followed by an assessment of the relevant comparative studies. The principal South Asian sites mentioned in the text are shown on Figure 3.

Archaeological Evidence for Early English Factory Sites

Published archaeological studies of 17th-century English factory sites in India, or of contemporary Anglo-Indian trade in the wider context, are currently non-existent for the simple reason that almost no archaeological work has been undertaken in this field. Similarly the archaeology of the later East India Company and British Raj periods has largely been ignored, despite there being many accessible sites, a number of which are maintained as historic monuments by both state authorities and the Archaeological Survey of India. This, however, does not reflect a scholarly bias towards the archaeological investigation of other European settlement sites, or even Indian sites of the corresponding late medieval and post-medieval periods. A review of published and non-published archaeological sources demonstrates that the archaeological community, both Indian and foreign, continues to focus its work in India almost exclusively on the traditional aspects of the country's archaeological record, namely the prehistoric and early historical periods. D K Chakrabarti succinctly summaries the situation, '*The study of medieval archaeology has not yet made an effective beginning in India outside the domain of general architectural studies...*'⁵⁶

While the absence of published work focusing on the archaeology of the emerging European factories, colonies and fortifications of the 17th century is very much in keeping with a wider disinterest in the nation's later archaeological record, a small number of Indian scholars have attempted to bridge this gap in knowledge by providing historical and resource-based frameworks into which future archaeological studies can sit. R N Mehta pioneered this type of work in his publication, *Medieval Archaeology*,⁵⁷ which discusses the history and morphology of the town of Surat and in doing so makes passing reference to the importance of the study of European graveyards. This theme is taken up and expanded upon by D K Chakrabarti in, *The Archaeology of the European Expansion in*

⁵⁶ Chakrabarti 2003a, 90

⁵⁷ Mehta 1979

India, Gujarat c. 16th-18th Centuries,⁵⁸ which presents a historical framework for a proposed programme of archaeological work and cemetery recording in Surat; the fieldwork itself, however, never took place.⁵⁹



Figure 3: The principal locations mentioned in the archaeological background

In the absence of useful synthetic works, we must turn to excavation reports in order to assess the possibility that unpublished archaeological evidence for early Anglo-Indian trade in South-West India and beyond exists. Here the Archaeological Survey of India's (ASI) annual publication, *Indian Archaeology - A Review*, provides a useful starting point;

⁵⁸ Chakrabarti 2003b

⁵⁹ Chris Scarre, pers comm

volumes spanning the period 1953-2001 are available online via the ASI's website. However, the lack of relevant information is striking; reports detailing regimes of maintenance to the upstanding historic fabric of extant fortified sites such as Anjengo, Tellicherry and Fort Cochin are plentiful, but if buried archaeological remains were disturbed in the process, no mention is made of their nature, nor the measures taken to record them.

Only two references to the buried archaeological remains of English factory sites are given in the entire journal series and both are, at best, ambiguous. A potentially significant reference to the short-lived early Courteen Association factory at Bhatkal is given in the Review for 1999-2000. Here, during restoration works to the upstanding grave monuments of three factors, '*The archaeological area around the monument was levelled by earthwork excavation.*'⁶⁰ There is no mention of whether remains of the factory itself were revealed (and destroyed) by these works.

The only reference to actual archaeological excavation at a factory site appears in the Review for 1986/87 which contains a short summary of a trial excavation at Fort Cochin which revealed underground passages relating to '*...some buildings said to have been built during the British period.*'⁶¹ Terracotta lamps and Portuguese porcelain are mentioned in association. If indeed structural remains of the 'British period', these must post-date 1814 when Cochin was surrendered by the Dutch and can therefore be assigned to the later period of the East India Company's administration of India. Further details are not forthcoming. Not only is this excavation unpublished, but its scale was too modest to even merit a mention in D K Chakrabarti's detailed critique of the ASI's poor publication record since Independence.⁶² The statistics contained therein are damning: approximately 75% of all ASI sites (of all periods) remain unpublished.

In the absence of excavated English sites, the nearest contemporary European site to receive concerted archaeological attention is the Dutch fort at Sadras on the Coromandel Coast.⁶³ The fort was located in an area famed for the production of muslin and dates from the second decade of the 17th century. In 2003 the ASI conducted a series of excavations revealing several structural features, a cemetery, occupation layers and a large

⁶⁰ ASI 2005, 30. A direct approach to the ASI confirmed that the summaries appearing in the review are the only published source of information on these sites

⁶¹ ASI 1992, 46

⁶² Chakrabarti 2003a

⁶³ The Danish fort at Tranquebar (Tarangampadi) has also been subject to limited archaeological investigation, though little detail is currently available – see Nilavendan 2012

assemblage of imported artefacts deriving from both Europe and the Far East. The results of the excavation have not yet been published, but a useful summary is presented in an online article by *Frontline* magazine.⁶⁴ The structural evidence offers a comparative body of evidence for the architectural development of some of the English Company's later 17th-century Malabar factories, most notably the fort at Anjengo (see Chapter 6). In addition, the archaeological remains at Sadras are certainly of clear relevance to the study of the structural form of the Company's 17th-century Coromandel forts at Armagon (1626) and Madras (1640).

The broad range of excavated material culture also provides an insight into commodities that were consumed and, perhaps, traded by the occupants of the earlier factories and demonstrates what might be achieved should the archaeological investigation of a site such as Anjengo ever be possible. Although specific dates are not attributed to the reported finds assemblages from Sadras (the fort continued to be occupied by the Dutch until captured by the British in 1796), it can be assumed that some of the contexts from which they derive are contemporaneous with the early English factory sites in Kanara and the Malabar. The finds assemblage from Sadras includes Dutch Delftware, porcelain from China, England and Germany and Dutch tobacco pipes. Very few locally-manufactured items were noted, leading the excavation team to conclude that most of the everyday items consumed by the occupants of the fort were imported from outside of India. No mention is given to the consumption of foodstuffs, however, most of which, it is assumed, must have been sourced from the surrounding area and from the sea. Documentary research could help clarify the means by which the fort was provisioned. Cultural interaction with the local population was evident in the form of a makeshift board for the Tamil game of *aadu-puli aataam* (goat and tiger game), found scratched on a brick. Again, such findings in an English context would greatly expand our limited understanding of the Company's early trading activities and cultural interactions with their hosts.

Archaeological Evidence for Early Indo-European Trade

Turning from the English factory and fort sites themselves to the trade in which they were engaged, the Indian Archaeological Review does contain some evidence for this (and Indo-European trade in general) in the form of 'Treasure Trove' finds, usually of coin, from various locations across India, including some from south-west India. Often undated, the assemblages also generally lack provenance. One of the better examples is that of a

⁶⁴ Subramanian 2003

collection of 235 17th-century gold pagodas of East India Company issue received by Madras Museum and recorded in the Review of 1958-59. It is one of the earliest of the dated assemblages but the location of its discovery is not mentioned.⁶⁵ Other more enigmatic finds are recorded; the Review of 1970-80 reports local people finding 96 lead ingots stamped with symbols, crests and English letters and numerals at a 'medieval fort site' in Sindhanur District, Karnataka.⁶⁶ None of these assemblages, however, can be attributed to an English factory site and most of those with reliable provenance are from very late (and peripheral) phases of excavated multi-period Indian sites from across the sub-continent.

There are, however, two excavated Indian sites in the vicinity of the south-western factories that have potential to elucidate aspects of early trade with the Europeans, though none have been published and the available details only exist in summary. ASI excavations at Mirjan fort (2000-01), which lies between the English factory sites of Karwar and Bhatkal, produced Chinese porcelain and a rare gold Portuguese coin of 1652; there is no further mention of trade goods in the brief summary given on the ASI website.⁶⁷ Excavations at the indigenous fort at Bekal, built by the Ikkeri Nayakas in northern Kerala, is also briefly summarised on the website.⁶⁸ Coins of the East India Company were found here but their date and provenance are not given. Despite the vagaries of the extant accounts, a review of the project archives for these two sites might clarify the extent to which they could contribute to the study of Indo-European trade.

More general historical context for the Ikkeri rulers themselves is presented in the publication '*Recent Researches in Karnataka Archaeology*', a collection of seminar papers presented as an archaeological study of Karnataka, but in fact largely epigraphic and numismatic in focus.⁶⁹ Similarly disappointing is M Nambirajan's '*Coastal Archaeology of Western India*' which is exclusively concerned with Goan sites, mainly of the prehistoric periods.⁷⁰

On a more positive note, the newly emerging discipline of Indian marine archaeology offers great potential for the future study of Indo-European trade and its place within the broader Indian Ocean markets during this period. Currently in its infancy, the work of Sila

⁶⁵ ASI 1959, 79

⁶⁶ ASI 1983, 102

⁶⁷ http://asi.nic.in/asi_exca_2005_karnataka.asp, accessed 31.8.13

⁶⁸ <http://www.asithrissurcircle.in/Excavations.htm>, accessed 31.8.13

⁶⁹ Krishnappa and Gopal 2000

⁷⁰ Nambirajan 2007

Tripati and colleagues on a salvaged wreck site at Sunchi Reef, off Goa, demonstrates what might be achieved through a combination of archaeological work and documentary research.⁷¹

Evidence from European Sites in the Western Indian Ocean

For published comparison sites, the net must be cast beyond peninsular India. Examples are not prolific, but two Dutch VOC sites have recently been investigated, shedding significant light upon structural, economic and cultural aspects of the company's more isolated forts. Katuwana fort in southern Sri Lanka is the first 17th-century Dutch fort to be excavated on the island and the work undertaken there makes an important contribution to the study of early colonial military architecture, which is of clear relevance to the study of the East India Company's later acquisitions in the Malabar (see Chapter 6). Although a number of parallels with the English factories exist, the purpose of the Dutch fortification at Katuwana was unambiguously military rather than mercantile. Nevertheless, the excavations produced assemblages of material culture that enable trade and interaction with the local society and environment to be studied.⁷² Particular focus is placed on the cultural interplay between the European and native elements of the fort's garrison and the economic dynamic of the fort and its immediate local setting. Katuwana therefore provides a good example of what might be achieved through study of the English company's contemporary factories in south-west India.

The second comparison site is Fort Frederik Hendrik built by the Dutch on the east coast of Mauritius - which was then an uninhabited island - in 1638. Archaeological evidence gathered over six seasons of excavation has been combined with documentary sources to study the structural development of the fort, material culture and day to day life of its occupants.⁷³ In contrast to both Katuwana and the contemporary English factories in India, there was no indigenous local population with which to trade and exchange culture - the fort was conceived as a purpose-built provisioning station for Dutch ships plying the trade route to and from Batavia, Indonesia. The main phase of 17th-century occupation (1664 onwards) comprised mainly post-built structures within the stone ramparts of the fort.

These two Dutch sites, therefore, offer clear parallels for comparison should intrusive archaeological investigation of an English factory site ever be possible, not only in terms of

⁷¹ Tripati *et al* 2001

⁷² Jayasena 2006

⁷³ Floore and Jayasena 2010

the type of physical evidence that may be encountered, but with regard to the broader themes that such evidence can address including settlement morphology, structural form, economy, provisioning, exploitation of local resources, place within the wider Indian Ocean trade pattern and cultural interaction with local people and other Europeans.

Contemporary New World Sites

Though geographically far removed from the coast of south-west India, a useful body of comparative archaeological evidence for the study of the English factory sites derives from the Americas, most notably excavated sites in Virginia and the West Indies (Barbados and Bermuda in particular). These sites are culturally and chronologically analogous as they were founded by the direct contemporaries of the East India Company and Courteen Association employees, although often with a different *modus operandi*.

In stark contrast to the Indian factory sites, a number of published excavation reports and synthetic works are available, particularly for the early colonial settlements in New England and the Chesapeake.⁷⁴ However, arguably the closest comparable bodies of excavated evidence derive from work undertaken on the island of Barbados, specifically from Holetown, the first European settlement on the island. This is of particular relevance as the settlement was founded as a tobacco plantation in 1627 by a chartered company financed by William Courteen. Smith and Watson (2009) provide a review of the island's settlement pattern and economy in the 17th century reconstructed from archaeological evidence from Holetown and the 'rival' settlement of Bridgetown, founded a year later than its predecessor after the crown had granted conflicting proprietary rights to the Earl of Carlisle.⁷⁵ Although both settlements were deliberately planted colonies rather than trading stations, the timing of their foundation in the later 1620's - only a decade prior to the appearance of the first Courteen Association factories in India - together with, in the case of Holetown, the involvement of William Courteen himself, make these sites important examples of the opportunities and limitations inherent in the archaeological study of English commercial ventures in the 17th century.

One of the key themes arising from the archaeological study of the Barbadian sites is the inherent difficulty in establishing the character of the vernacular architecture used by the early settlers. In the first half of the 17th century, Holetown appears to have been little more than a village comprising a fort, a church and two streets known as First and Second

⁷⁴ For example Miller 1988; Horning 2006; Pecoraro and Givens 2006; Graham et al 2007; Fortenberry and Brown III 2011

⁷⁵ Smith and Watson 2009, 65

Street.⁷⁶ Excavations at First Street have produced building materials from 17th-century contexts, including large charred timbers, red earthenware pantiles, window glass, lead window comes and iron nails. However, no *in situ* foundations, postholes or beam slots have been found. A similar dearth of unequivocal evidence has resulted from the work across the island at Bridgetown, where a single posthole and a subterranean storage pit are the only extant evidence for the well-documented timber, post-built structures used by the first settlers.⁷⁷ Indeed a similar situation has been noted in Bermuda where evidence for the early 17th-century timber structures built by the first colonists has also yet to be found, in contrast to the well-established examples of contemporary post-built architecture known from the Chesapeake Bay settlements of Virginia.⁷⁸ Documentary sources, however are explicit; timber was the principal building material used for the first half of the 17th century, later replaced by coral and stone.⁷⁹

Similar difficulties in ascertaining the structural forms of buildings used for the early English factories through archaeological excavation alone should be anticipated at many, if not all of the factory sites in India. Like the New World sites, whatever the state of preservation, archaeological evidence must be complemented with documentary and cartographic evidence if anything approaching a clear understanding of the subject is to be attained. Here, the example of cross-disciplinary work undertaken in Bermuda demonstrates what might be achieved.

Michael Jarvis's study of the work of Richard Norwood, who produced surveys of Bermuda in the 17th century, touches a number of relevant issues.⁸⁰ Norwood's India-bound contemporaries sometimes produced maps, topographic surveys and maritime charts during their visits, the mariner Edward Barlow's collection of sketches being perhaps the most well-known body of such work.⁸¹ Bermuda became the first foreign settlement to be comprehensively surveyed shortly after its colonisation by the Virginia Company in 1612 and was resurveyed by Norwood in 1616-17. The second survey was undertaken at the behest of the Somers Islands Company following their acquisition of the colony, with the purpose of dividing the island into 400 25-acre tracts to be apportioned to the company shareholders. The resultant survey was reproduced by the cartographer John Speed in

⁷⁶ Ibid., 66

⁷⁷ Ibid., 71

⁷⁸ Fortenberry and Brown III 2011, 3

⁷⁹ Smith and Watson 2009, 74

⁸⁰ Jarvis 2011

⁸¹ Lubbock 1934

1626 and includes depictions of individual buildings, including houses and churches. Jarvis argues that, '*there is sufficient minor variation in the house icons in terms of their window and door placement and compass orientation to suggest that they are representations of the new 'substantial houses' that Norwood saw under construction.*'⁸² Remarkably, a second, more detailed survey was undertaken by Norwood in 1662-63, some 40 years after his first visit to the island. It depicts a greater array of house forms which Jarvis considers to be '*probably accurate in both appearance and location*'.⁸³

Complementing Norwood's surveys is a detailed engraving of houses, churches and fortifications in the town of St George's undertaken by Captain John Smith and dating to 1624; it shows houses of both single and two storeys with gabled roofs and prominent chimney stacks. Jarvis views these cartographic resources as pivotal to the study of the island's early vernacular architecture, a view borne out in a postscript to his paper in which he reports the successful targeted excavation of a dwelling site depicted on both the Norwood surveys.⁸⁴ The veracity of the work of 17th-century surveyors, and the subsequent engravings of their surveys such as those produced by John Speed and Wenceslas Hollar, has also been tested in Britain. Recent archaeological work in Coventry has shown that Speed's plan of the city (1610) is surprisingly accurate in its rendering of land division, building orientation and structural form.⁸⁵ Therefore, where such evidence exists for the English factories in Kanara and the Malabar it has been used to support documentary evidence (see Chapters 3-7).

In addition to providing evidence for settlement and building morphology on foreign shores (taking in prevailing domestic, military and ecclesiastical architectural forms) the West Indian sites also offer valuable evidence for the manner and means by which the early English settlements were provisioned during the 17th century. In Barbados, ceramic assemblages recovered from early to mid-17th-century contexts at Holetown and Bridgetown are dominated by tin-glazed earthenwares of English and Dutch provenance and also include significant amounts of German stoneware. In the absence of a local pottery industry (which was later established in the second half of the 17th century), the settlers were reliant on foreign imports, often carried to the island by Dutch, rather than English shipping.⁸⁶ In this sense, the assemblages bear close comparison to those

⁸² Jarvis 2011, 56

⁸³ *Ibid.*, 63

⁸⁴ *Ibid.*, 68

⁸⁵ Mason et al, forthcoming

⁸⁶ Smith and Watson 2009, 75

excavated from contemporary European settlements in the Western Indian Ocean such as the Dutch forts of Sadras and Fort Frederik Hendrik (where European imports were complemented by Chinese ceramics). As observed at the Dutch outposts, alcohol consumption was also evident in the Barbadian sites in the form of imported punch bowls. European tobacco pipes were also prevalent - as might be expected in a settlement whose economy was partially reliant on the cultivation of tobacco.⁸⁷ Tobacco was also cultivated in certain parts of south-west India, having been introduced by the Portuguese (see Chapter 8).

Whether a reliance on imported goods from Europe (and beyond) might be observed in the archaeological record from the Kanara and Malabar factory sites and what this might tell us about the prevailing attitudes of the resident English factors, are important questions. They may be answered through combining the results of programmes of archaeological fieldwork with a review of relevant documentary evidence such as correspondence from between the factors and the Company and the published accounts of those that visited the factories.

Excavated material from contemporary 'New World' sites has also demonstrated the potential for studying the impact that episodes of political change (more often than not instability) had on the household economies of England's foreign settlements. Pecoraro and Given's (2006) work on 17th-century artefact assemblages from Virginia demonstrates the possibilities that such a study might offer in a south-west Indian context. Their study tentatively concludes that a number of contemporary events, including the English Civil War, affected the provisioning of the Virginian colonies, forcing the colonists to adapt their trading patterns in a manner that is detectable in the archaeological record.⁸⁸ Should assemblages of material culture from the Kanara and Malabar factories be accessible, similar observations may be possible, allowing the impact of distant events in Europe to be balanced against the effect that the many well-documented periods of domestic political volatility, involving Indian and European alike, had on the trade and provisioning of the English factories.

⁸⁷ Ibid., 76

⁸⁸ Pecoraro and Givens 2006, 76

CHAPTER 3: INTRODUCTION TO FACTORY TYPOLOGY

Factory definition

The term ‘factory’ in the modern sense, implicitly associated with processes of manufacture and assembly, does not apply to the trading establishments of the European companies in South Asia and beyond. Here, the historical definition of the word, ‘*An establishment for traders carrying on business in a foreign country*’ is succinct but accurate.⁸⁹ Chaudhuri (1978) elaborates further, ‘*The term ‘factory’ at this time merely signified an establishment for merchants to carry on business from within a foreign country and is derived from the word ‘factor’ meaning an agent employed by the principal merchant.*’⁹⁰ The origins of the English usage of the term ‘factory’ date to the century preceding the East India Company’s arrival in the sub-continent and derive from the Portuguese *feitoria* which itself derives from the Medieval Latin *factoria* and ultimately from the Latin *factor* which translates as ‘doer’.⁹¹ Indeed, in an Indian context, the Portuguese introduced the factory system to the Kanara and Malabar regions, establishing their first factory at Calicut in 1500.⁹² However, their interest in trading on the open market was soon replaced with one of attempted monopoly through territorial and maritime control exercised from a string of forts sited along the south-west Indian littoral.⁹³

Very little secondary literature exists on the subject of East India Company factories in this period. The few substantive studies of Company architecture in India that have been made concentrate almost exclusively on the later 18th and 19th centuries.⁹⁴ Where factories are discussed as part of broader examinations of early Anglo-Indian trade, they tend to be cursory and generalised. Watson (1976), for example, draws a distinction between early Company factories, which he defines as, ‘*a central warehouse surrounded by living-quarters for the servants*’, and the rented premises used by the Company.⁹⁵ However, both definition and distinction, as shall be seen, do not accurately reflect the classification of factories in south-west as understood by those engaged in the trade.

⁸⁹ <http://www.oxforddictionaries.com/definition/english/factory?q=factory>, accessed 24.03.14

⁹⁰ Chaudhuri 1978, 573

⁹¹ <http://www.oxforddictionaries.com/definition/english/factory?q=factory>, accessed 24.03.14

⁹² Pearson 1987, 30

⁹³ *Ibid.* For an assessment of the Portuguese factory system in 16th century Malabar see Kieniewicz 1969

⁹⁴ See, for example, Archer 1963 and Davies 1985

⁹⁵ Watson 1976, 378

For the East India Company (and Courteen Association) in the 17th century, it is evident from the consultation of primary documentary sources that the term 'factory' was a generic one, used without reference to the specific architectural form, extent and wider setting that actually existed on the ground. Often it was used interchangeably with the term 'house', another ambiguous label that could apply to the entire establishment or just to the building in which administrative tasks were performed and the factor's domestic quarters located. The transposable usage of these terms is consistently demonstrated by the contemporary literature, an early example being Peter Mundy's description of the Courteen Association's factory at Bhatkal.⁹⁶ Beyond the administrative/domestic structure (what might be termed the 'factory house'), storage facilities were also required and these are most commonly referred to in contemporary documents as warehouses. Thus the factory house and the attendant warehouse(s) can be considered the two basic units of the factory, though it is clear that their basic form varied significantly.

Towards a factory typology

In this part of the thesis a putative factory typology is presented which has been constructed in order to examine the physical attributes of the factories themselves and the influences which affected their foundation, development and, in certain cases, withdrawal. It is argued that by assigning factories to type-sets on the basis of shared physical characteristics, sometimes disparate pieces of evidence for the individual establishments begin to coalesce into a more useful body of data. The resultant type-sets may then be interrogated in the hope that this approach might shed new insight into socio-economic and political aspects of pre-colonial Anglo-Indian trade and contribute to the broader study of Indian Ocean trade in the 17th century.

The typology has been informed principally by an appraisal of documentary evidence for the factories drawn from East India Company and Courteen Association correspondence held in the India Office Records of the British Library. For the most part transcriptions of original correspondence reproduced in Danvers (1896), Foster (1897-1927) and Fawcett (1936-55) have been used.⁹⁷ The original documents themselves have been consulted in certain instances and selectively for the period post-dating 1684, the final year for which the aforementioned transcripts were compiled. Throughout the period in question the primary documents have been supplemented with the published accounts of contemporary

⁹⁶ Temple 1919, 72-96

⁹⁷ Generally referred to as the 'English Factories Series'

visitors to the Malabar and Kanara regions. The assignation of the typology's four categories of factory have been drawn directly from this body of documentary evidence using the descriptions and inferences of those that were either directly involved in their administration or had first-hand knowledge of their physical forms through having visited them. The reliance on primary documentary evidence in the construction of the typology is therefore key to its potential value as an interpretive tool.

As a result of this research, the twelve factories of 17th century south-west India have been divided into four basic types:

- The purpose-built factory
- The lightly-built structure in basic indigenous style, often termed 'hovel' in the contemporary literature (and referred to as such henceforth),
- The fort
- The rented house.

The limitations inherent in assigning factories to these four types is recognised; the small size of the data set and weighting of evidence in favour of certain of the factories (generally those of greatest longevity) necessitates a cautious approach. Where possible pictorial and cartographic evidence has been used to support the documentary sources to aid reconstruction of architectural form and setting; again some factories are better served by these depictions than others. Additionally, archaeological field surveys were undertaken at the sites of the factories in Kanara and the results used to expand the study of these examples, whereas time and budgetary constraints prevented similar exercises being undertaken for the Malabar factories. It is clear then that all three categories of evidence have not been exhausted; certainly the vast catalogues of material within the India Office Records have only been lightly used in relative terms and survey visits could be made to the locatable Malabar factory sites. Nevertheless, within the parameters of an MA thesis the typology can be viewed as a simplistic yet potentially useful tool, a platform from which to study the mechanisms and infrastructure of Anglo-Indian trade and the factors which promoted the furtherance of English interests in this part of India in the pre-colonial period.

The assignations of the factories within the typology are shown in Table 1 and their respective locations in Figure 4. The evidence gathered from the sources outlined above has been used to formulate a set of defining characteristics for each factory type which are presented in full in Chapters 4-7.

The Early English Factories of South-West India

Factory	Dates of usage	Type	Chapter
Cranganore	1616	Hovel?	5
Calicut	1616-17,	Rented house?	7
	1659-1660/61, 1664-65, 1670-75	Rented house	7
	1665-1670, 1675-	Purpose-built factory	4
Bhatkal	1637-39	Purpose-built factory	4
Karwar	1638-1650	Purpose-built factory	4
	1661-66, 1668-1672	Hovel	5
	1672-1752	Purpose-built factory	4
Old Kayal	1659-65	Purpose-built factory	4
Porakad	1662-65	Purpose-built factory	4
Tanore	1666-c.1673	Hovel	5
Baliapatam	1669-1675	Fort	6
Tellicherry	1683-1794	Fort	6
Retturah	1688-c.1693	Fort (attempted)	6
Brinjaon	1692-c.1695	Fort (attempted)	6
Anjengo	1695-1813	Fort	6

Table 1: Factory typology

As will be seen, the quality of the historical evidence for each of the 17th-century factories in question varies considerably; indeed for the early factory at Cranganore there is no tangible evidence at all for its form and its assignation has therefore been conjectured based on the prevailing circumstances of its foundation. Others benefit from a plethora of sources and of these the sites with the greatest longevity, Karwar and Calicut, together with the later fort sites, Tellicherry and Anjengo, are best served. As will be seen, these four factories may be considered the most prominent of the East India Company's 17th-century holdings in south-west India, the former pair for much of the second half of the century, the latter in its final few years.

In the case of Karwar and Calicut it may also be noted that the factories were housed in different types of premises at different times, and therefore appear in more than one of the typological groups. The specific reasons for this are presented in the relevant chapters and discussed in a broader sense in Chapter 8.

The factories at Retturah and Brinjaon are allocated to the fort type on the basis that contemporary correspondence makes clear they were intended to be developed as such

and some of the descriptive material contained therein is very informative. The degree to which they actually attained the physical characteristics of forts is highly questionable though – the evidence is considered in Chapter 6.

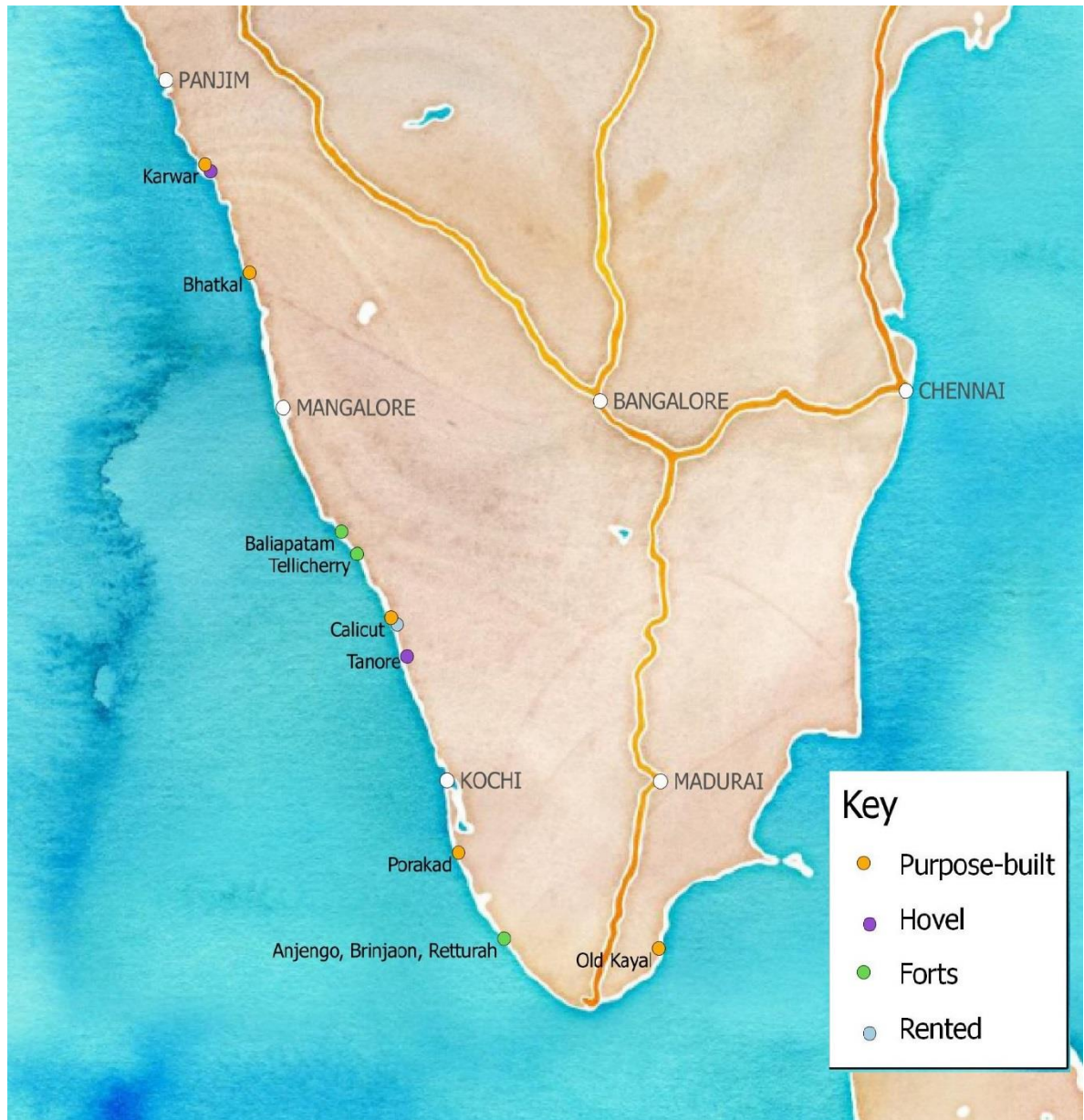


Figure 4: Factory locations ordered by type

The Evidence

Historic documents and contemporary accounts

The principal source of evidence used to formulate the typology are the numerous but disparate references to factory location, setting and form contained within the vast archive

of surviving original Company correspondence held within the India Office Records (IOR) as part of the British Library's Asia, Pacific and Africa collections. However, the records include individual archives for only three of the factory locations in question Karwar, Tellicherry and Anjengo⁹⁸ and of these, only the Karwar factory records contain 17th- and early 18th-century documents relevant to this study. The majority of the contemporary documents are scattered throughout the factory records of Surat and later, Bombay⁹⁹, the Presidencies which oversaw the operations of the twelve factories and also the IOR's extensive 'Original Correspondence' catalogues.¹⁰⁰

The immense task of transcribing the many thousands of letters and consultations that make up the IOR archive was diligently undertaken in the last decade of the 19th century and first half of the 20th by F C Danvers and W Foster in their *Letters received by the East India Company from its servants in the East* series¹⁰¹ (covering the period 1602-1617), and then continued by Foster and later C G H Fawcett in the *English Factories in India* series (spanning the period 1618-1684).¹⁰² These publications present transcripts of all Company (and much Courteen Association) correspondence to 1654 and then, as the amount of correspondence proliferates, extracts from the key documents through to 1684; they have been drawn on extensively in formulating the typology.

For the period post-dating 1684 (and in some instances earlier) select original documents have been examined and transcribed by the author. The majority of these relate to the factories at Retturah, Brinjaon and Anjengo and are held in the IOR Original Correspondence catalogues.¹⁰³ These sources have by no means been exhausted, particularly those post-dating 1695 when the indexing system breaks down. Further research would no doubt relinquish useful details if sufficient time and resources were available. The same applies to bodies of documentary evidence whose consultation has not been possible within the confines of this study, most notably, perhaps, the logbooks of East Indiamen held in the Marine Records of the India Office.¹⁰⁴

⁹⁸ IOR/G/22, IOR/G/37, IOR/G/1 respectively

⁹⁹ IOR/G/36 and IOR/G/3 respectively

¹⁰⁰ IOR/E/3 and IOR/E/4

¹⁰¹ Danvers 1896, Foster 1897-1901

¹⁰² Foster 1906-1927, Fawcett 1936-1955

¹⁰³ IOR E/3/48-51

¹⁰⁴ IOR L/MAR series

A key element of the India Office Records that have been consulted is the Maps Collection¹⁰⁵, which has been supplemented with a thorough appraisal of relevant material held in the British Library's main Maps Collection, and both the Oriental and Western Manuscripts collections. The resultant paucity of 17th-century evidence serves to heighten the importance of the few cartographic and pictorial sources for the factories that do survive; these have been used to complement the documentary evidence for the factory typology where possible. In many cases the negative evidence in itself tells a story: the relatively rapid disappearance of the physical remains of many of the factory sites after their abandonment is reflected in their complete omission from often very detailed 18th- and 19th-century surveys of their locales. Further pictorial evidence has been sought in the Library's Online Gallery and through a more general search of the World Wide Web and the resulting images have been used where relevant, though no 17th-century depictions of the Kanara and Malabar factories themselves were found through these media.

Apart from these sources, the factory typology has been greatly informed by the descriptive accounts produced by a number of contemporary visitors to the coastal regions of south-west India. Foremost among these are the works of three English mariners whose accounts span most of the period in question: Peter Mundy¹⁰⁶ (whose visits spanned the period 1628-1655), Edward Barlow¹⁰⁷ (1670-1697) and Captain Alexander Hamilton¹⁰⁸ (1688-1723). Aside from these sources the 1670s are particularly well-served by a trio of published journals; that of a French cleric known as Abbé Carré¹⁰⁹ (1672-74), his countryman, the physician Gabriel Dellon¹¹⁰ (1688-76) and his English counterpart Dr John Fryer¹¹¹ (1672-1681). Unlike the work some of their contemporaries, their accounts appear reliable, corroborating not only with each other, but also with Company documents. As such the typology borrows heavily from their testaments.

Archaeological surveys

In November 2013 walkover and photographic surveys were undertaken at the Bhatkal and Karwar factory sites in Kanara with the principal objective of corroborating the documentary and cartographic evidence for their locations and to undertake landscape

¹⁰⁵ IOR X series,

¹⁰⁶ Temple 1919

¹⁰⁷ Lubbock 1934

¹⁰⁸ Hamilton 1727

¹⁰⁹ Fawcett & Burn 1947. Abbé Carré was gathering intelligence for the French Minister Jean-Baptiste Colbert

¹¹⁰ Dellon 1698

¹¹¹ Fryer 1698

study to aid a greater understanding of their setting in relation to contemporary natural resources, lines of communication and nearby centres of occupation.

The specific aims of the fieldwork were as follows:

- To identify any surviving elements of historic settlement morphology and building fabric.
- To assess and evaluate the geographical locations
- To make a rapid, *in situ*, assessment of surface artefact spreads to identify origin, form and function.
- To assess the potential for undertaking further archaeological work at the sites

The results of the fieldwork are presented in Appendix 1 and are also incorporated into the evidence for the typology where appropriate (see Chapter 4). The potential for archaeological fieldwork to further contribute to the study of the factories is assessed in Chapter 9.

CHAPTER 4: THE PURPOSE-BUILT FACTORY

Summary

Five factories have been allocated to this type, though the quality of evidence for each varies considerably. The factories include the Courteen Association establishments at Bhatkal and Karwar, the short-lived East India Company factories at Old Kayal and Porakad and the longer established, though intermittent, factories at Karwar and Calicut. Two of the sites, Karwar and Bhatkal, were visited by the author as part of this study. The results of walkover and photographic surveys have been incorporated with the other categories of evidence and full fieldwork report is presented in Appendix 1.

The available evidence suggests that the Company factory at Karwar may be viewed as the exemplar of its type. In addition to the factory house itself, which was fortified and built in a European style, warehouses, a kitchen and stables also appear to have been present. With the exception of Calicut, whose physical characteristics were probably dictated to the Company by the powerful local authorities, the other factories were probably simple stone structures. Riverine or coastal settings are common to all.

The Evidence

Bhatkal (1637-39)

The approximate location of the early Courteen Association factory at Bhatkal is marked by the graves of three of its factors which are maintained as historic monuments by the Archaeological Survey of India in the village of Dongarpalli. The site is located on the northern bank of the Chowtani River, 2.5km upstream from the port and c.1km west of the historic core of the town (Figure 5).

The relatively large body of documentary evidence that exists for the short-lived factory, can largely be attributed to the journals of Peter Mundy, who was in the employ of the Association at the time of its foundation. Temple (1919) neatly summarises the key pieces of evidence in his edition of Peter Mundy's journal, which contains extracts not only of Mundy's account, but draws on other contemporary sources. As a result, we learn that the *firman* that followed the Association's successful mission to the royal court of the Nayakas of Ikkeri in February 1637, granted land at Bhatkal on which to build a factory.¹¹² Mundy,

¹¹² A *firman* being a royal or official decree

who accompanied the mission, notes, '*After super hee [the Raja] gave us a Firmaen to build a house att Battacala, With permission of trade in his Country...*'¹¹³



Figure 5: The approximate location of the English factory at Bhatkal

The account of one of his companions, Mr Thomas Robinson, gives further details,

He granted us by his patent a large plot of ground lying very Comodiously by the river side to build us a house, the ruined parts whereof will afford us squared stone enuffe for that purpose, and moreover, in the same patent he hath given us timber, of which there is no want, and all materials, we paying onlie for laborers hire, which in these parts is very cheape.¹¹⁴

Temple's publication also contains extracts from a letter sent to the Association by the Raja himself, shortly after Mundy and Robinson left his court. Dated 1st March 1637, he wrote,

¹¹³ Temple 1919, 85

¹¹⁴ Ibid., 90

Touching a house to dwell in and warehouses for your goods and a wharf, I have written to the governor of Bata Calla to furnish you with materials, you only paying for the workmens charge...He is also enordered to apoint you a buriall place for your dead.¹¹⁵

The reference to a cemetery is a key piece of evidence for the factory's location as the extant graves of three factors occupy a prominent position in the modern-day village, on a terrace overlooking the river (Figures 6 & 7).



Figure 6: Location of the English cemetery at the Bhatkal factory site

They are marked with chest monuments which appear to be later additions, but these are capped with the original grave slabs which are inscribed with the biographical details of the incumbents who are named as; Anthony Verneworthy, Merchant (d. 1st April 1637; Figure 8), George Wye, Merchant (d. 31 March 1637) and William Barton, Surgeon (d. 30

¹¹⁵ Ibid., 92

November 1638). Peter Mundy identifies Anthony Verneworthy as the factory's chief and George Wye as the purser; he also mentions a surgeon, presumably this was Barton.¹¹⁶



Figure 7: View of the English graves at Bhatkal, looking south-east across the Chowtani River
(photo: author)

Verneworthy's commission, dated 16th March 1637, details, among other things, that the house they build should be,

...in such manner and forme as you shall thinke most convenient...further to proceed (at your discretion and as you shall finde yourselfe inabled) in procuringe licence to fortyfie for the securitie of our trade...¹¹⁷

¹¹⁶ Ibid., 95

¹¹⁷ Ibid., 104



Figure 8: Detail from Chief Factor Anthony Verneworthy's grave inscription (photo: author)

Thus it is clear that at inception of their venture, the Association intended the factory at Bhatkal to be a substantial structure with attendant warehouses, permission for which was granted by royal authority. A site for the factory was allocated in close proximity to the Chowtani River where a wharf would also be built. Furthermore, dressed stone salvaged from a pre-existing structure was available for the factory buildings and provision made for a supply of timber too. Labour was to be provided by the local people, whom the Association would reimburse for their efforts.

The amount of progress made in effecting these plans, however, remains unclear. Verneworthy was dead within weeks of his appointment and by January 1638 only seven of the factory's original complement of fifteen were left alive.¹¹⁸ By the spring of 1638 the situation had deteriorated to the extent that it was necessary for Weddell's fleet to re-establish the factory on their return from the Far East.¹¹⁹

¹¹⁸ Ibid., 426

¹¹⁹ Ibid., 450

Transcriptions of extant correspondence from this period are presented in Foster (1912); none of the letters dispatched by the Association give details of the extent to which the factory structure had been completed prior to its abandonment in 1638, or to the form that it took following Weddell's intervention. What is clear, is that within a year of its re-establishment it had been abandoned again, this time permanently.¹²⁰

Karwar (1638-1650, 1672-1752)

A combination of documentary, cartographic and archaeological evidence has enabled the site of the English factory at Karwar to be determined with a reasonable degree of confidence. It lies in the village of Sunkerri, on an arm of the Kali River which joins the main channel to a 'backwater' creek (Figure 9). The creek divides Sunkerri from the village of Kadwad, the nearest contemporary settlement to the factory. Karwar itself, a relatively modern town, lies c.4.5km south-west of the factory site.

In comparison to the relative glut of references to the establishment of the Association factory at Bhatkal, the circumstances surrounding the planting of their second factory at Karwar have slipped from the historical record. However, it is clear from the journal of Peter Mundy that the potential of the area had been spotted soon after the Association fleet arrived in India, his entry for the 21st January 1637 noting,

Wee anchored among some small llands thwart of a faire large bay Named Carware. Heere we wooded. From the lland and the Mayne, my selffe with others went uppe one of the hilles, From whence Wee might see a low Flatt lland in the Codde of the Bay, within which was an entraunce or straight which presently enlarged it selffe to a little sea, in some places aboutt 2 Mile broad, butt how farre it went uppe Wee could not Discerne. It had a spacious plaine on each side with Woodes and trees in sundry places. The Barge went on shore, butt could Not bee understood by the Country people, although they Were provided with linguists, butt here None of them currant. Many small llands along the shoare hereabouts.¹²¹

¹²⁰ Foster 1912, xxi

¹²¹ Temple 1919, 70



Figure 9: Postulated location and setting of the factory at Karwar

The first references to the English presence in Karwar in Association and East India Company correspondence date from 26th January 1639, but these contain no evidence for its setting and form.¹²² For even the most cursory allusion to its appearance, documents detailing its demise in the later 1640's must be consulted.

Foster (1914a) presents two such documents; the first is dated 7th December 1646 and is written by the Association's factors at Karwar to the President and Council of the East India Company at Surat, offering the sale of the factory in the face of, what they (pre-emptively) considered, its imminent dissolution.¹²³ Here reference is made to, '*our howse and appurtenances*' and the financial investment made to, '*...bring it to the estate it is now in, being well fortified and strong...*'. The Company subsequently declined the offer and the factory remained in the possession of the Association until its capture by the Governor of Karwar in 1650.

¹²² IOR/E/3/16:234-35; Foster 1912, 129

¹²³ Foster 1914, 59

The second document, reproduced in part by Foster, is an account of this loss written by the factor Edward Lloyd following his release from captivity. He reports that the governor accused the Association of accruing substantial debts, including being four years in arrears on their rent (presumably the rent of the ground on which the factory was built). As such, the factory was taken, its 'chests' broken open, their contents seized and the, '*...house demolished and broken downe to the ground.*' In addition, a large number of palm trees owned by the factory were felled.¹²⁴

News of this misfortune had clearly failed to reach John Darrell, an associate of William Courteen Esquire, when he published a tract entitled '*Strange News from th' Indies: OR, East-India Passages further discovered...*'¹²⁵ In this publication, Darrel, who claimed to have thirty-one years' experience of the East India trade, presented a case against the East India Company for damages suffered by the Association as a consequence of their actions. Darrel considers these to be either acts of deliberate sabotage, or as a result of the longer established Company's harassment of indigenous shipping along the Malabar coast, which in turn stirred local animosity towards Courteen's employees. Whilst his claims are highly biased and probably exaggerated (they are clearly designed with litigation in mind), his pamphlet does contain a number of references to the factory at Karwar which are useful if approached with appropriate caution.

Among the losses incurred by the Association at the Company's hands he lists, '*The constant watch and Fortification of Carwar against Malabars, thereto provoked by the said East-India Companies massacres, and depredations along the coast. 500li. 0s.*'¹²⁶ and later,

To 7000 Pagothies great at Carwar (ultr. building, fortifying, and other great and continual charges, conceived above 20 000li) the only Port of hopes and consequence in possession of English, now in great danger to be lost to the Dutch or others, which will set a higher value upon it...¹²⁷

In a subsequent section entitled, '*Some Carwar Considerations*', Darrel reiterates the considerable expenditure made to fortify the factory and describes it as having been freely purchased by Sir William Courteen (contrary to Lloyd's reference to the payment of rent to the town's Governor). It is, according to Darrel, well situated for '*Road, Bay, River, and*

¹²⁴ Foster 1914a, 343

¹²⁵ Darrel 1652

¹²⁶ Ibid., 22

¹²⁷ Ibid., 23

ground...' and, more spuriously one suspects, capable of supporting a 10,000 strong colony.¹²⁸

Whilst the figures that Darrel quotes may well be wide of the mark, the general gist of his allusions to the factory do chime with those contained in the correspondence of Lloyd and the other factors. From these sources it would appear that by the mid-1640s, the Association had established a fortified house at Karwar, probably with attendant structures and probably on a generous parcel of land planted with palms, for which they paid rent to the town's Governor. This factory would appear to have been raised to the ground following its capture in 1650. None of the contemporary sources pin point its location – for this the greater body of documents resulting from almost a century of trade under the auspices of the East India Company at must be consulted.

The first Company factory at Karwar appears to have been established early in 1661; in March of that year a letter from Surat names Robert Master, Richard Ball and Edward Lloyd (the former Association employee) as its resident factors.¹²⁹ This venture appears to have been short-lived as a year later another letter reports that Master and Ball were en route to Karwar aboard the *Seaflower* with an instruction to establish a fortified factory, '*in a convenient place on the river*', funded jointly by the Company and the town's Governor.¹³⁰ Thus, whilst the intention appears to have been for the factory to be purpose-built from the outset, in the event, a catalogue of setbacks ensured that the occupation of such premises did not occur until 1672. In the intervening period the factory appears to have utilised makeshift premises (see Chapter 5).

It is clear from the surviving Company correspondence, however, that prior to 1672 work was started on a purpose-built factory which in the event was never occupied. The first of these is a Surat letter dating to 19th January 1663 which relays the news that the Governor of Karwar has sanctioned the building of a house for the Company, '*...two storyes high, made of very good square stone of a great thikness...*'¹³¹ Subsequent letters from Karwar refer to the construction of a fortified house without giving details of its precise form or setting.¹³² Little progress appears to have been made over the course of the next few years; in August 1664 the factors reported that Rustum Zaman, the Bijapuri official

¹²⁸ Darrel 1652, 28

¹²⁹ Foster 1923, 27

¹³⁰ *Ibid.*, 29

¹³¹ *Ibid.*, 121

¹³² *Ibid.*, 229

responsible for the administration of the district (described variously as viceroy and general), had instructed his son (whom exerted considerable influence in Karwar) and the Governor to build the house and avoid displeasing the English.¹³³ A year later they mention that an *amaldar* or officer had been sent to help finish the house¹³⁴ and three months later the house is reported to be almost finished when the factors write to Surat asking whether they should occupy it along with their garrison of 40 peons.¹³⁵ The reply, dating to January 1666, instructs them to stay in their current lodgings until debts are recovered from the Governor.¹³⁶ The debts were duly recovered, but in July 1666, with the issue of occupying the new factory still unsettled, the factors were forced to flee Karwar after receiving threats due to their refusal to loan money to Rustum Zaman, who had sided with the invading Marathas. A letter written by the exiled factors from Hubli (the principal mart of the region) in September 1666 explains their predicament, mentioning almost as an aside that the 'new' house, had, '*...fallen downe, in a great storme of wind and raine*'; by late March 1667, the displaced factors were residing in Surat.¹³⁷

When the English returned to Karwar two years later, the construction of a purpose-built factory was once again high on their agenda. A party led by Randolph Taylor and including the former factors Philip Giffard and Caesar Chamberlain and their broker, Valji, had been sent to Karwar to negotiate for trade with the newly appointed Governor, Sied Abdell Hossan, Writing on the 12th September 1668, Taylor reported the success of their mission, referring to a series of draft articles which were presented to the Governor for his consideration and later, according to a communication of 12th October, formalised in a written agreement signed on 20th September.¹³⁸ These articles made provision for the rebuilding of the house that had fallen down in 1666 and also for the protection of goods housed in their warehouses.

Foster (1927) suggests that the articles of 1668 were based on the terms of an earlier *firman*, a copy of which is held in the India Office Factory Records for Karwar.¹³⁹ This document, which is presented in English and Persian, ostensibly dates to 1666 according to the official India Office Records. The English version lists a number of clauses which

¹³³ Foster 1921, 347

¹³⁴ Foster 1925, 80-83. This letter also reports that a tiger terrorizing the area near the factory had killed the factory's *kasid* or letter carrier.

¹³⁵ *Ibid.*, 86

¹³⁶ *Ibid.*, 200

¹³⁷ *Ibid.*, 207-8 Foster 1927, 106-9

¹³⁸ Foster 1927, 106-110

¹³⁹ IOR/G/22/1

include a reference to repairs to be made to the house that had been built on the order of Rustum Zaman and fallen down whilst the factors were away in Surat (Clause 6). Clause 12 makes reference to 'English Compounds', whilst Clause 13 orders, somewhat enigmatically, the 'Renter of the Batty Grounds' to desist from forcing peons working for the English from renting any of the said grounds.¹⁴⁰

There are obvious problems with the date assigned to this document. Given the reference to the house falling down whilst the factors were in Surat, a more likely date would be 1668 and indeed, Foster, quoting from a translation of the Persian version, states that the agreement to which it purports was between Agha Murshid, Governor of Karwar and Randolph Taylor and Philip Giffard.¹⁴¹ However, the date given in the Persian translation is 24th July 1659, which leads Foster to suggest that the *firman* may have originally been drawn up following a reconnaissance to the area in advance of the first East India Company factory.¹⁴² On balance a muddling of dates at the point of transcription is arguably more likely given the document's content.

Wherever the 1668 clauses were derived from, the rebuilding of the earlier factory house was delayed from the outset. In a report dated 1st September 1669, the factors bemoaned their present temporary accommodation (see Chapter 6) and stated that should the Governor's contribution toward the construction of the factory should be supplemented with sufficient funds from the Company, enabling them to, '*...build a good strong house, and soe large as wee might safely lodge all our goods from yeare to yeare...*'¹⁴³

The following year saw Edward Barlow's first visit to Karwar; his journal includes a brief description of the local inhabitants, the produce available there and the climate.¹⁴⁴ Whilst no mention is made of the factory itself, it does include a detailed sketch of the bay and its environs entitled, '*The Maner of the Situation of the Port & Rode of Carwar...*'. This shows three East Indiamen (identifiable by the striped Company flags flying from their sterns) at anchor in the bay together with a larger fleet of small indigenous vessels. The Kali River is shown snaking inland, as is the creek mentioned by Barlow's predecessor Peter Mundy. The town is depicted on the north-eastern side of the creek (where the present-day village

¹⁴⁰ A peon being a low ranking soldier or worker in this context

¹⁴¹ Foster 1925, 208

¹⁴² Ibid., 209

¹⁴³ Ibid., 272

¹⁴⁴ Lubbock 1934, 188

of Kadwad is sited) and on the opposing side of the inlet, presumably close to the site of the factory, Barlow depicts another East Indiaman at anchor (Figure 10).



Figure 10: Edward Barlow's view of Karwar, 1670 (The National Maritime Museum)

In August 1671, Caesar Chamberlain (who had been appointed to the post of Chief Factor early in 1670), was finally able to write with details of progress in the construction of the new factory.¹⁴⁵ This is the first document to present architectural detail: the town's Governor and *Desai* (revenue official) had taken part in a ceremony in which the factory's foundation stone had been laid and permission was subsequently granted to go ahead with its construction. Chamberlain states that work had first started in 1662 but had halted when the incumbent governor had taken exception to the occupation of nearby Angediva Island by the displaced English garrison of Bombay. On their departure in 1664 work continued until the structure's collapse in 1666 (Chamberlain states that its foundations had been laid on sand). A stronger foundation was laid when work recommenced in 1668 before work halted once again while financial matters were addressed.¹⁴⁶ Chamberlain wrote again at the end of October 1671 to report that work had progressed but there were no workmen available to build the upper terraces properly and that the local lime,

¹⁴⁵ Fawcett 1936, 298

¹⁴⁶ *Ibid.*, 299

manufactured from oyster shells, was of a poor quality.¹⁴⁷ Despite these problems, the new factory was finally occupied in early 1672, though it was described as badly furnished.¹⁴⁸

From this point onwards, evidence for the factory's location and structural form becomes both more plentiful and generally more detailed. Company correspondence is supplemented with contemporary accounts written by visitors to the factory and the mutual corroboration of detail that they provide gives a clarity absent from the fractured snippets of information conveyed in the earlier letters and documents.

Not long after taking possession of the new factory, the death of King Ali Adil Shah of Bijapur heralded a period of renewed instability that saw the Rajas of Sonda and Bednur invade Bijapur's territories in North Kanara. At the same time, Maratha forces under Sivaji were also making gains at the expense of the Bijapuri regime. Against this backdrop, in mid-1673 the factory was attacked by the new Governor who has been appointed by the rebels. The factory was evidently strong enough by this point to withstand the attack and the English subsequently helped the loyalist Governor re-take his 'castle'. The company then sent a ship, the *Revenge* with reinforcements from Surat and the factory garrison duly received twenty soldiers and a piece of ordnance - an eight-pound canon. Additionally, in response to the attack, the factory house was also strengthened with bastions.¹⁴⁹

In December 1673, shortly after the rebellion had been put down, the French traveller, cleric and intelligencer, Abbé Carré, put into the '*bay of Corouard*'.¹⁵⁰ He describes the opening into the creek and reports that nearby they reached the factory,

...which is a large house, built in European fashion with three storeys. It is on the river bank and has four bastions, on which are some small cannon, commanding the river and the plain. They have some English and some black Portuguese soldiers, because of the civil wars between the princes of these parts. This has obliged Arab, Persian, and other foreign merchants, who trade in the country, to camp with their followers and equipages round this English fort, for protection against the inroads of their armies, which ravage all the country near the other side of the river. The town and the fort of Karwar are about a cannon-shot from the English

¹⁴⁷ Ibid., 300

¹⁴⁸ Ibid., 308-9

¹⁴⁹ Ibid., 318

¹⁵⁰ Fawcett & Burn 1947, 712

factory, being separated by the river, which finally disappears into a large marshy plain.¹⁵¹

Abbé Carré's description would seem a reliable one, not only because he was, in effect, a French spy with a remit to gather accurate information on the English position, but also because his description marries with Barlow's sketch of the topography at the mouth of the creek, drawn only two years earlier (Figure 10). Both pieces of evidence describe a riverine setting that, bar the addition of a footbridge spanning the mouth of the creek, is little changed today (Figure 11). In a footnote to their translation of Abbé Carré', Fawcett and Burn draw the reader's attention to the similarities between Barlow's inferred location of the factory in 1670 and Carré's description of the 'new' factory and conclude that one was probably not far from the other.¹⁵²

The next account is that of Dr John Fryer who arrived in Karwar in November 1675. The town and all of the territory around it had by this point been captured by the Marathas and a new governmental regime loyal to Sivaji was in control. The factory, however, had not been adversely affected by the regime change due to the strength of its fortifications. Fryer's description of it closely resembles that of Abbé Carré, '*...they built this their stately Mansion Four-square, guarded by Two Bulwarks at the Commanding Corners of the House...*'¹⁵³ He goes on to give a description of its location which not only concurs with the earlier evidence, but, uniquely among the documentary accounts of the time, links it with that of the earlier Courteen Association factory,

Our House stands on a delicate Mead (on the Ground of ****Cutteen Esq: a Cornish Gentleman, who had it by grant from the King of Visapour...)...Seated on the Arm of the River, surveying a pleasant Island stored with Game...¹⁵⁴

While Fryer stands alone in asserting that the Association and later Company factories occupied the same plot of land, his description of the '*delicate Mead*' does strike a chord with Peter Mundy's description of the entrance to the creek written almost 40 years previously.

¹⁵¹ Fawcett & Burn 1947, 712-13

¹⁵² Ibid.

¹⁵³ Fryer 1698, 146

¹⁵⁴ Ibid.



Figure 11: View from Kadwad, looking north-west across the creek towards the Karwar factory site
(photo: author)

Further evidence linking the sites of the two factories is provided by a map which, taken at face value relates solely to the later Company holding. ‘*A Chart of the Bay of Carwar*’, dated c.1680, is one of a collection of 40 17th-century maritime charts and maps, clearly produced by the same hand and later bound into a manuscript held in the British Library (Figure 12).¹⁵⁵ Here a cluster of large fenestrated buildings with high gabled-roofs are depicted close to the southern opening of the creek, with the George Cross flying over them. The easternmost of the structures has a wide arched opening in its frontage. On the opposite side of the creek a large fort-like structure is depicted - almost certainly the Governor’s ‘castle’. Whilst this generic rendering of a fortification is used in many of the manuscript’s other folios, the icons used for the factory are sufficiently different from those used to depict the groups of village houses also present to suggest that they may be based upon broadly accurate architectural characteristics of the factory (a similar

¹⁵⁵ Western Manuscripts, Additional MS.15,737, f.22

observation has been made based on the surveys of 17th-century architecture in Bermuda - see Chapter 2).

While the detail of the map accords with the other pieces of evidence for the post-1672 factory, Foster (1914b), in presenting a strong case for the identity of the manuscript's draftsman, casts serious doubt on its date. He asserts that the charts are the works of a mariner named Charles Wilde who had a long career at sea, first with the East India Company and later with the Royal Navy. Wilde kept a journal and made sketches of the ports he visited which bear close resemblances to those of the manuscript and, in 1645, he sailed along the Malabar Coast aboard the *Hind*, putting into a number of ports en route to Surat.¹⁵⁶ Foster's argument is compelling, and if correct would mean that rather than depicting the later Company factory, the chart shows the setting and possible form of the Courteen Association factory in the final few years of its existence. Should this be the case, it would then support Fryer's statement that both factories occupied more or less the same plot of land.

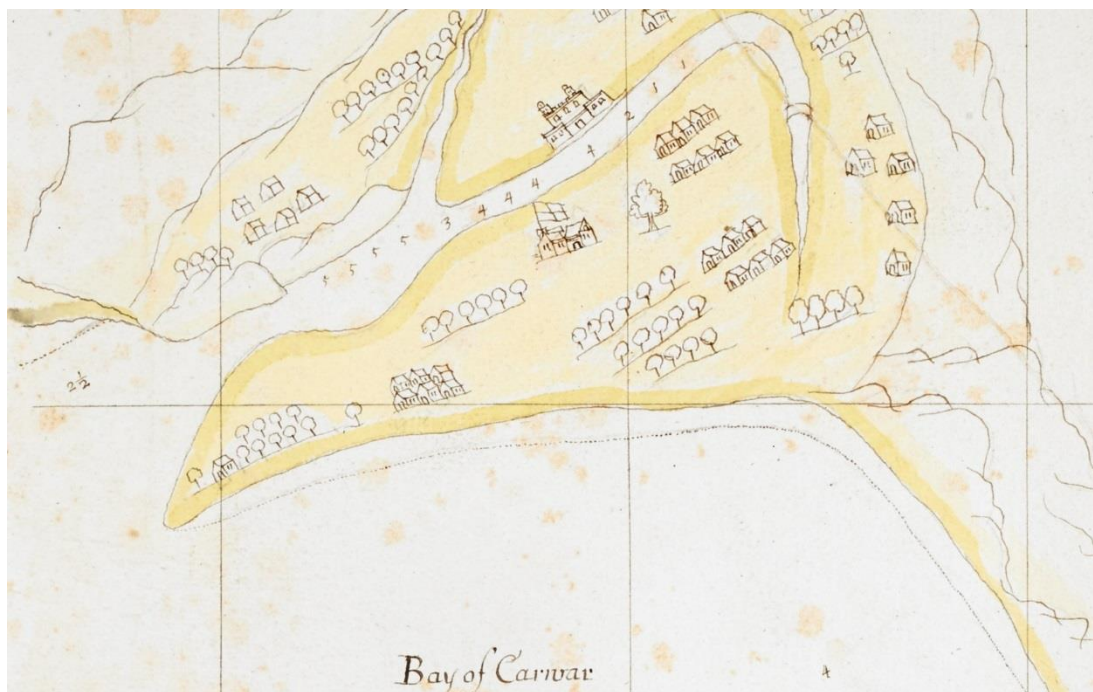


Figure 12: Detail from 'A Chart of the Bay of Carwar' (© British Library Board)

Fryer makes one other potentially illuminating comment when describing his visit to Karwar. In giving an account of the recent fighting between the local forces and the

¹⁵⁶ Foster 1914b, 80

Marathas, he states that when facing defeat, the former sought protection within the confines of the factory, '*At Noon, by the Hurly-burly of all ranks of Men, Women and Children, with what little Substance they had, flying under our Guns for Succour*'.¹⁵⁷ This would suggest that by 1675 an area substantial enough to provide shelter for the remnants of the town garrison and camp followers was enclosed within the defensible perimeter of the factory.

A number of documents of the later 17th and early 18th century provide evidence for the Company's wider estate at Karwar, variously alluding to its location, elements of its appearance and its size. In December 1684, the factors complained that the then Governor, who is named as Sambhaji, had been abducting the wives of their peons and whipping their husbands at the 'factory gates'.¹⁵⁸ Factory gates are also mentioned by Alexander Hamilton, whose observations date from the period 1688-1723. He describes grandiose hunts involving not only the factors and their peons, but members of the local elite, terminating at the factory gates.¹⁵⁹ He also makes reference to a ship's pinnace coming, '*...ashore at the factory gate*'.¹⁶⁰, suggesting that the main gate faced onto the creek rather than inland and that it lay close to the water's edge. Unfortunately, no actual details are given regarding the appearance of the factory gate.

In concordance with the descriptions of Abbé Carré and Fryer, the factory house itself is described as being, '*...fortified with two Bastions, and some small Cannon for its Defence*'.¹⁶¹ Hamilton was in a particularly authoritative position to comment on the defensive capabilities of the factory as, in 1718 he led a force sent to relieve a lengthy siege by the Raja of Sonda. Of the factory's location he writes,

...he who built it where it is, had no great Foresight in choosing his Ground, for it ought to have been built in a Place of free Communication with the Sea, but now it stands a League from it. And, in Anno 1718. The Rajah shewed them their Error, and built Batteries at the Mouth of the River, so that the Factory is nothing at present but a gentile Prison...¹⁶²

¹⁵⁷ Fryer 1698, 147

¹⁵⁸ Fawcett 1954, 427

¹⁵⁹ Hamilton 1727, 263-4

¹⁶⁰ Ibid., 274

¹⁶¹ Ibid., 259

¹⁶² Ibid., 265

The 'Batteries' that Hamilton refers to were at the site of Sadashivgad Fort on the northern side of the mouth of the Kali. The ruins of the fort are still extant, as are a number of cannon which surely coincidentally point in the direction of factory from the forecourt of the Shree Durgadevi Temple which sits at the foot of the fort (Figure 13).

Although Hamilton's account of the skirmishes that eventually led to raising of the siege are bereft of details of the factory itself, his assessment that the opposing force numbered 7000 men does give some indication of the strength of the factory defences at that time.¹⁶³



Figure 13: View towards Karwar factory site, from the Shree Durgadevi Temple at the foot of Sadashivgad Fort (photo: author)

A more expansive account of this episode exists in the Karwar Factory Records where the letters and diary of George Taylor, the factory's chief at the time of the siege, can be found and give a great deal of incidental evidence for the factory's appearance and its wider

¹⁶³ Ibid., 267-68

setting.¹⁶⁴ Of the factory house itself we learn that the walls were four feet thick and able to withstand the enemy's cannons¹⁶⁵; the presence of bastions is again confirmed with specific mention made to the southernmost bastion.¹⁶⁶

Taylor makes many references to the factory compound, which, it would appear, was defined by a 'hedge' which was fortified at the time of the seige, '*in the best manner*'¹⁶⁷ and later had a trench dug around it's perimeter and thirty six powder chests placed at intervals.¹⁶⁸ At the height of the siege Taylor claims that over 1,200 people were trapped within the compound of which only 150 bore arms. A clear field of fire was achieved by burning all of the houses near the compound and felling over one thousand '*coconut trees*'. The terms '*settlement and estate*' are also used;¹⁶⁹ clearly the factory compound enclosed a sizeable area.

In his diary of the siege, Taylor also gives the directions from which the factory compound took enemy fire, described variously as, '*from a point by the riverside to the westward of us about the distance of musket shot where they had entrenched themselves*',¹⁷⁰ from '*a small hill to the Southward about pistol shot from us*'¹⁷¹ and from the fort and '*the foot of the hill to the Eastward*'¹⁷² (i.e. from Kadwad, across the creek). Then only direction from which the factory was not assaulted was from the north.

Combined with the preceding evidence, the documents resulting from the 1717/1718 siege suggest that the site of the factory lies within the modern-day village of Sunkeri which is spread out along the southern bank of the channel forming the opening to the creek. Towards the village's eastern periphery is a very well-established square parcel of land defined by the road on its south and west sides, a thoroughfare and frontages on the north and a heavily overgrown field boundary on the east. The perimeter measures some 225m x 225m, thus an area of c. 5.5ha is enclosed, easily large enough to accord with the description given by Taylor above. Today the site is occupied by village houses, small cultivated plots and pockets of dense undergrowth (Figure 14). Given the weight of the

¹⁶⁴ IOR/G/22/1

¹⁶⁵ IOR/G/22/1, Letter of 20th December 1717

¹⁶⁶ IOR/G/22/1, Diary entry of 5th July 1717

¹⁶⁷ Ibid.

¹⁶⁸ IOR/G/22/1, Letter of 20th December 1717

¹⁶⁹ Ibid.

¹⁷⁰ IOR/G/22/1, Diary entry of 17th June 1717

¹⁷¹ IOR/G/22/1, Diary entry of 5th July 1717

¹⁷² IOR/G/22/1, Diary entry of 13th June 1717

evidence it seems likely this parcel of land is that of the factory compound or estate, an argument strengthened by the final body of documentary evidence for the factory.

To the immediate north of the postulated factory compound, on the bank of the channel leading to the creek, is the Church of Our Lady of Immaculate Conception and its churchyard (Figure 15). The existing church comprises a white washed octagonal nave built in the 1990s to replace the previous Portuguese church (consecrated 1803) that had fallen into a state of disrepair. However, Silva (1957), asserts that the church on this site dates back further, to the beginning of the previous century when the East India Company granted the land to Carmelite exiles from Goa. Using records held by the General of the Carmelite Order in Rome, Silva states that the English gave, '*a place in their own grounds and here the Carmelites built a small church and residence. This was in April 1709*'.¹⁷³ He goes on to report that,

In 1721, the church which was until then of bamboo, was built of mud and stone and dedicated to Immaculate Virgin Mary. It was 78 cubits long and 22 cubits wide, and possibly one of the largest churches in India.¹⁷⁴



Figure 14: The postulated factory compound at Karwar, with the churchyard to north

¹⁷³ Silva 1957, 82

¹⁷⁴ Ibid., 83

The association of the church site with that of the factory is also made explicit in records held by the church itself that were kindly made available to the author by the incumbent parish priest, Father Anthony D'Souza.¹⁷⁵



Figure 15: The Church of Our Lady of Immaculate Conception on the site of the former Portuguese church (photo: author)

The riverbank hereabouts presents an open aspect to the 150m-wide channel and its confluence with the Kali River, some 900m to the west (Figure 16); a juxtaposition of topographical features offering comparison with the location of the factory as depicted on the contentiously dated 'Chart of the Bay of Carwar' and the position of the moored East Indiaman depicted in Barlow's sketch of 1670 (see Figures 10 & 12).

The rapidity with which the physical remains of the Karwar factory appear to have disappeared from both the landscape and collective memory alike following its eventual

¹⁷⁵ Pinto 1993; also a number of anonymous papers, some hand written

closure in 1752¹⁷⁶ is evidenced by surveys of the area undertaken in the later 18th and 19th centuries.¹⁷⁷ A series of charts, views and quite detailed surveys spanning the period c.1780-1855 (which all predate the settling of the modern town of Karwar) consistently omit the site of the former factory despite often depicting the village of Kadwad and the ruins of Sadashivgad Fort. From this one would assume that after its abandonment, the physical remains of the factory were soon denuded to the extent that they rapidly ceased to be referenced as a local landmark.



Figure 16: The channel joining the Kali River to the creek, viewed from the north of the church
(photo: author)

¹⁷⁶ IOR/G/22. Although the factory was officially withdrawn in this year, it had been closed for the period 1720-1750 due to the hostility of the Raja of Sonda, and re-opened for less than two years before its final abandonment as the Portuguese assumed control of the area.

¹⁷⁷ See, for example, 'Mount Formosa...and Carwar by T.C Templar, c.1780' (Map Coll: Maps SEC.12 (802.PL.2)); 'A Sketch of the General Traverse of Soanda, 1817' (IOR/X/2773/1-2) and 'Sedashigur Bay and River surveyed by Lieutenant A D Taylor and M A Sweeny, 1855 (Map Coll: Maps SEC.XII.(242))

Old Kayal (1659-1665)

Following the hiatus in Anglo-Indian trade in the Malabar and Kanara regions that persisted for most of the 1650s, one of the first of the East India Company factories to be settled was at Old Kayal, established in 1659 near Cape Comorin. This appears to have been conceived as a purpose-built factory, though references to the form of the factory are scant. The principal factory was located in the historic port of Kayal (Kayalpatnam) which today lies 2km inland due to silting of the Tamraparni River delta. A subsidiary Company house appears to have maintained at Alwartirunagari, c.19km up river (Figure 17).



Figure 17: The situation of Kayalpatnam and Alwartirunagari

In January 1659 a letter written to the Company from Surat states that local merchants in Old Kayal had encouraged the English to plant a factory there and as a result, they intended to send European commodities and £4,000 in cash to pump-prime a factory.¹⁷⁸ No details are given regarding the arrangements made for its placement or construction, but three factors were duly landed there in the spring, by the East Indiaman *Society*, en route to Mocha. The first reference to the factory buildings occurs almost four years later

¹⁷⁸ Foster 1921, 219

in a consultation document dated 2nd February 1663, which mentions two English holdings, one some twelve miles upriver at Alwartirunagari, the other on the coast at Kayal itself and described as a 'dwelling house'.¹⁷⁹

The only other documentary evidence for the factory's appearance dates to the final months of its existence, prior to its capture by the Dutch. In a letter dated 5th June 1665 a Porakad factor reports the death of Walter Travers, the chief at Old Kayal, and the subsequent seizure of the factory by the local populace,

The natives, immediately after his death, entered the factory, surveyed all things in the house, took a list thereof, sealing up all the doors, carrying what gold and silver they found along with them...¹⁸⁰

The factory was briefly reoccupied by the English, but a month later, in July 1665, it was taken by the Dutch.

Porakad (1662-65)

Slightly more evidence is available for the contemporary factory at Porakad, planted by the English in early 1662 to exploit cheap supplies of quality pepper. Few details of its appearance have been found and its location within the modern-day village of Purakkad cannot be pinpointed with any degree of accuracy from the consulted sources (Figure 18).

In March 1662, shortly after the dispatch of two factors, a letter to the Company in Surat refers to, '*...the King of Porcatt having built a howse at his owne charge for the reception of our factors...*'¹⁸¹ There is no explicit detail of the style and extent of the new factory.

In early 1663 a letter from the Porakad factors John Harrington and Alexander Grigby, recommends that, in the face of growing competition from the Dutch, two stone houses are built; one on the coast, which was already partially constructed, and the other up country. In a request reminiscent of the Courteen Association establishment at Karwar, each was to be set amid a plot of ground planted with coconut trees.¹⁸² Further, a letter dated April 1663 states that the King had already entered into a treaty with the Dutch and, '*...commanded the Companies flagg, raised in front of the factory to seaward, to be taken downe, and gave way that the Dutch should set up theirs.*'¹⁸³ Further allusion to the

¹⁷⁹ Ibid., 251

¹⁸⁰ Ibid., 90

¹⁸¹ Foster 1923, 93

¹⁸² Ibid., 246-250

¹⁸³ Ibid., 248

proximity of the sea is given in a letter of 17th November 1663; the marginalisation of the English had continued and the factors complain that guards were sent to picket their brokers' house and others were deployed, '*...in divers places hard by our house neare the strand...*'¹⁸⁴



Figure 18: The situation of Purakkad

By February 1665 the state of both English affairs and the factory building itself had further degenerated; Grigby comments in a letter to Surat, '*...this our factory is but as a choutry...*'¹⁸⁵ Foster defines a *choutry* as an open shed or *loggia*.¹⁸⁶ It is unclear whether this was an accurate description of the factory house at this time or simply a metaphor used by the disgruntled factor. If the former situation were the case, the factory at this point might be considered a 'hovel' alongside the examples cited at Tanore and Karwar (see Chapter 5).

¹⁸⁴ Ibid., 262

¹⁸⁵ Foster 1925, 89.

¹⁸⁶ Ibid.

Grigby had been ill for some time and in the same letter stated his intention to recuperate in the better accommodation afforded by the factory at Old Kayal. In the event he was prevented from doing so by the events that followed Travers's death. Five months later Grigby wrote again, announcing the Dutch capture of Porakad, his resultant imprisonment, and that the factory was now occupied by, '*...their factour resident in our place...*'¹⁸⁷

Calicut (1665-1670, 1675-)

The evidence for the purpose-built factories at Calicut is less ambiguous than that for Porakad and Old Kayal, though still not expansive. Anglo-Indian trade, initially from a rented factory, had been re-established in the city in 1659 (see Chapter 7) and the first purpose-built factory was occupied six years later. Evidence for its probable location on the sea-facing outskirts of Calicut's old town is set out below. After this establishment was destroyed in a storm in 1670 a second purpose-built factory appears to have been located further away from the old town; the conjectured locations of both factories are shown on Figure 19.

It is clear from the correspondence of the two incumbent English factors, Charles Smeaton and Robert Barbor, that the construction of their purpose-built factory was being organised for them by the Zamorin's officials under circumstances that were far from ideal. In letters spanning February to May 1665 they complain of the constant bribes necessary to keep the construction programme alive, of the ineffectiveness of their broker in securing trade and the threat posed to English commerce and their own personal wellbeing by the Dutch.¹⁸⁸ Despite these difficulties, by mid-June 1665 the new factory was finished and the factors were able to report their, '*...joy for our being that very morning freed, by an entrance into our new house, from those many inconveniences wee had, by reason of our former ill accommodation, sustained in that place.*'¹⁸⁹ For the rest of the year and through to mid-1666 the factory continued to trade, principally for pepper, offering in exchange consignments of cotton and opium supplemented with cash. Trade was brisk; in a letter dated 23rd June 1666 the factors reported that their existing warehouse was full of pepper and that the construction of a second adjoining warehouse was underway.¹⁹⁰ However, whilst these correspondences give an indication of the general character of the factory and the circumstances leading to its completion, they fail to provide evidence for its exact structural form.

¹⁸⁷ Ibid., 93

¹⁸⁸ Foster 1925, 94-97

¹⁸⁹ Ibid., 97

¹⁹⁰ Ibid., 211

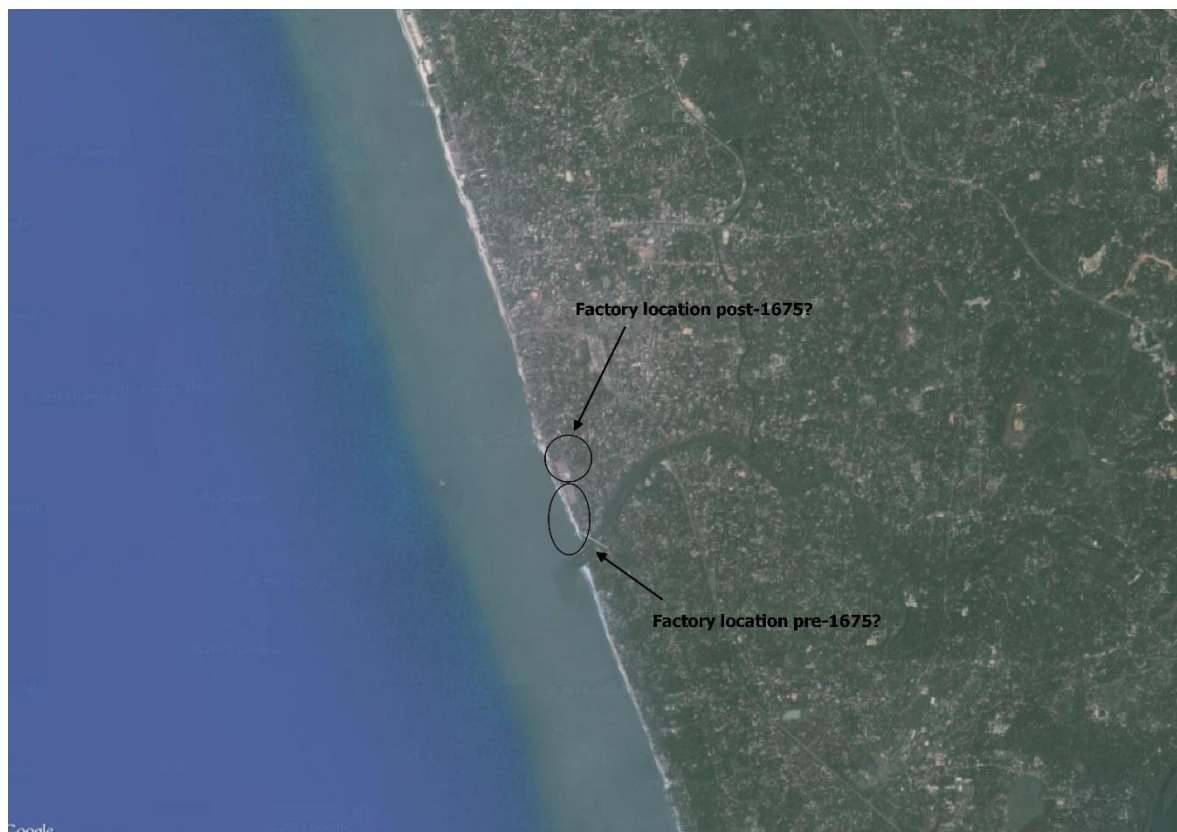


Figure 19: The conjectured locations of Calicut's purpose-built factories

A reversal in English fortunes in Calicut was precipitated by the death of the reigning Zamorin and the succession of the new, who was less inclined to resist Dutch pressure to eject the English than his predecessor. In an account of their subsequent abduction from the factory by the Zamorin's men on 29th August 1666, the factors give passing details of its design; a courtyard used for 'imbaying pepper' is mentioned as is a 'chamber' occupied by Mr Barbor – presumably his private accommodation, reached via a flight of stairs. After being seized, the factors were carried 'out of dores' and taken to one of the Zamorin's houses along the coast in Ponnani.¹⁹¹ When eventually released, having succumbed to certain financial demands, the factors returned to their house but in the face of ongoing extortion and perceived threats to their lives, eventually fled to Tanore where a temporary factory was established with the blessing of the local King (see Chapter 5).

On their return to Calicut two years later, the factory and 150 tonnes of pepper stored in its warehouses were found to be untouched and trade was resumed. Late in 1688 the factory building was evidently strong enough to withstand an assault by local fishermen following

¹⁹¹ Ibid., 212

the 'accidental' shooting of one of their number, but later succumbed to a great storm that raged that along the Malabar coast in the winter of 1670.¹⁹² Edward Barlow's journal contains a sketch of the Calicut seaboard on the eve of this disaster (Figure 20). The view is an off shore perspective showing a heavily wooded coast lined with buildings either side of the mouth of a river, presumably the Mampuzha. It gives no indication of the factory's location but the area depicted corresponds with the modern-day neighbourhoods of Kuttichira and Thekkepuram, which still contain many of Calicut's historic buildings (also see Chapter 7). A large structure incorporating a tower on the fringe of the built-up area may be the ruins of the former Portuguese fort, built in 1513 and abandoned in 1526.¹⁹³ As a result of the storm a large portion of the town, including part of the factory and the Portuguese fort, was washed into the sea. This heralded a return to rented accommodation prior to work commencing on a new factory (see Chapter 7).

The site for the new factory had still not been decided upon when the new chief factor, George Bowcher, dispatched a letter dated April 1671 reporting that the partially standing remains of the previous factory were 'ready to fall down' and a short time afterwards it was reported that it had been completely washed away by the sea.¹⁹⁴ Gabriel Dellon, visiting Calicut at the time, wrote, '*Whilst I was there I was an eye-witness of the Disaster that befell the English, whose Habitations, which had not been Built many Years before, were entirely swallowed up by the Waters.*'¹⁹⁵ The town's Governor offered the English the choice of site for their new factory, the construction of which was to be paid for by their customs duties.¹⁹⁶ Work was subsequently begun but soon ground to a halt as arguments over financial matters took hold – an impasse which appears to have kept the English in rented premises until the appointment of a new governor in July 1674. Work on the new factory then resumed and the factors finally took possession prior to its completion, in March 1675.¹⁹⁷ Dellon, who had stayed for a short time with the English factors in their rented accommodation (but gives no details of its appearance) noted that the new factory had been built, '*...in a rising and consequently less dangerous piece of Ground.*'¹⁹⁸

¹⁹² Foster 1927, 118-123

¹⁹³ Panikkar 1929, 87 & 108

¹⁹⁴ Fawcett 1936, 302

¹⁹⁵ Dellon 1698, 141

¹⁹⁶ Fawcett 1936, 302

¹⁹⁷ *Ibid.*, 342

¹⁹⁸ Dellon 1698, 142



Figure 20: Edward Barlow's view of Calicut, 1670 (The National Maritime Museum)

No details pertaining to the architectural form of this structure are presented by Fawcett (1936-1954) in his remaining volumes of factory correspondence, which cover the period through to 1684. Reference is made to the factory being badly in need of repair in 1682 from which one might conclude that the structure was not well built from durable materials.¹⁹⁹ The accounts of contemporary visitors to Calicut are similarly unhelpful; most make only passing reference to the factory while contrasting the town's dilapidated state with its former opulence.²⁰⁰

The factory's location was probably that shown in an engraving by James Forbes, whose extensive observations along the Malabar coast in the 1760s and 70s were published in an illustrated volume of the early 19th century.²⁰¹ The engraving shows the flags of various nations, including the Union flag, flying from higher ground beyond the heavily wooded shoreline, with a line of jagged mountain peaks in the background (Figure 21). This perspective suggests that the factory site lay to the north of the earlier factories.

¹⁹⁹ Fawcett 1954, 396

²⁰⁰ Lubbock 1934, 193; Fryer 1698, 54; Hamilton 1727, 316-7

²⁰¹ Forbes 1813

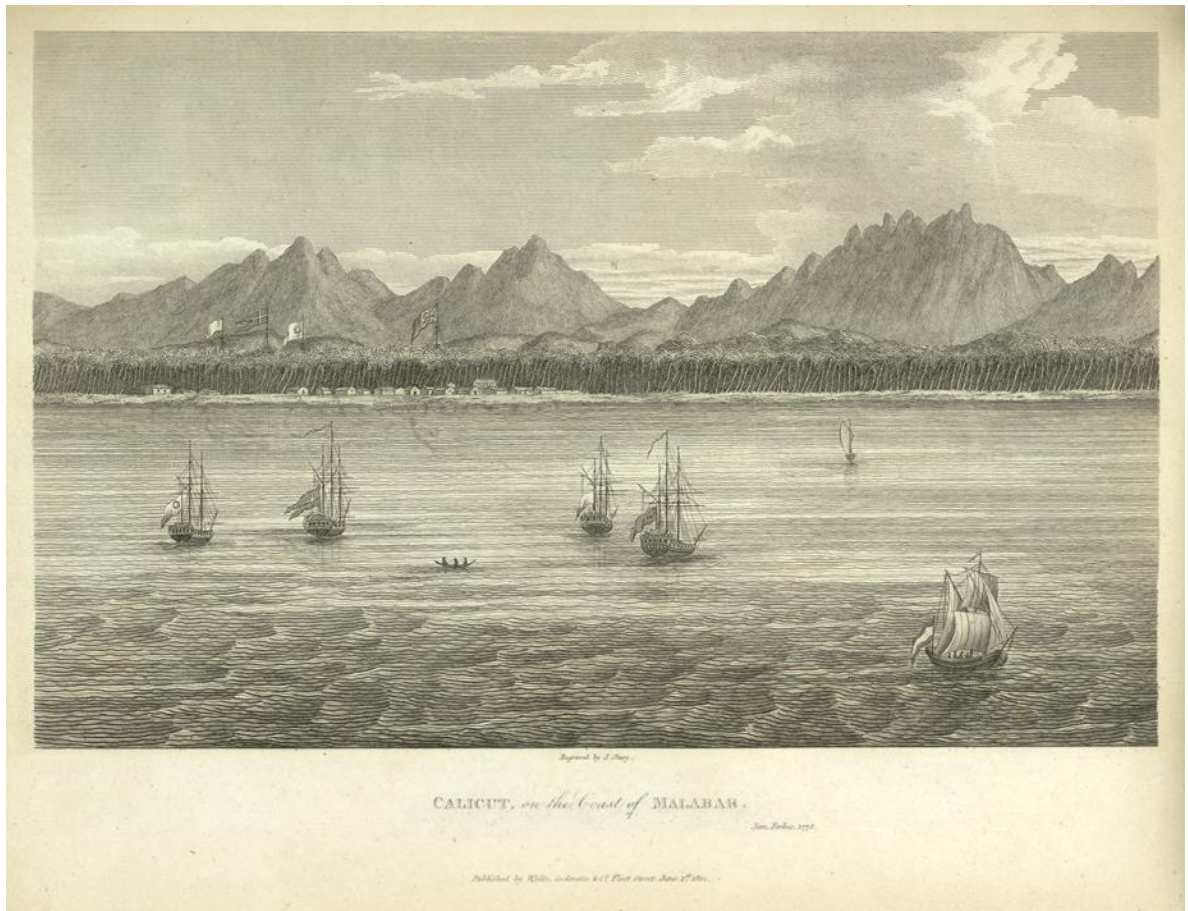


Figure 21: James Forbes view of Calicut, late 18th century (The British Library)

Definition of Type

Whether completed and occupied, destroyed by man or nature whilst partially-built or merely conceived as an ideal, the documentary evidence sets out a fairly coherent blueprint for the desired form of the purpose-built factory. This included a fortified factory house built in stone in European style, attendant warehouses, also in stone, both sited within a plot of land, preferably planted with palms. The degree to which these ideals were met appears to have varied from factory to factory - Karwar may be considered the exemplar of its type. Of the others, the factory architecture and use of space at Calicut was probably defined to a degree by the pre-existing townscape, certainly in the case of the first of the Company's two factories there. The factory at Porakad may also have been a structure owing more of its appearance to indigenous styles, having been built by the local ruler for the factors. Conversely however, it may have been built to blueprint provided by the Company - the evidence is equivocal.

The Early English Factories of South-West India

The key attributes of the five purpose-built factories, as reconstructed from the evidence set out above are summarised in Table 3.

	Bhatkal	Karwar	Kayal	Calicut	Porakad
Riverine setting	X	X	X		
Coastal setting				X	X
Urban/semi-urban setting	X	X	X	X	?
Stone house	X	X			X
European architecture		X			
Indigenous architecture				?	?
Multi-storied structure		X		X	
Warehouses mentioned or inferred	X	X		X	
Fortified/ordnance	X	X			
Compound or estate mentioned or inferred	X	X			X
Gated		X			
Courtyard				X	
Palm groves		X			X
Cemetery	X				
Wharf	X				

Table 2: Concordance of purpose-built factory attributes derived from documentary sources

Setting

One of the key defining characteristics of the purpose-built factory was a location close to the open sea and by preference a little up river rather than directly on the coast. The locations of both the Bhatkal and Karwar factories, lying slightly upstream from the mouths of the Chowtani and Kali Rivers respectively, bear a striking similarity that is unlikely to be purely due to their shared Courteen Association origins. The factory at Old Kayal may also have occupied a similar location at the mouth of the Tamraparni River; modern mapping is misleading as the river delta has rapidly silted in the 350-odd years since the factory was abandoned resulting in the town now lying c.2km inland. The original factory at Calicut probably lay close to the mouth of the Mampuzha River whereas the modern town of Purakkad is located at a point where a backwater meets the sea, though both of these

examples appear to have been coastal rather than occupying a position on an inland waterway.

Proximity to an 'urban' centre was also a feature of the purpose-built factory, though it should be stressed that the reason for this was not one of trade *per se*, as the commodities sought by the English were generally acquired 'up country' through the agency of indigenous brokers and merely stored at the factory sites prior to lading. Whereas the factory at Calicut lay within the town itself, as it may be assumed did Old Kayal, the Karwar and Bhatkal sites both lay close but slightly apart from the local urban centres. For Porakad the evidence is less obtuse, but it would appear that it also lay close to, if not within, the local centre of occupation.

The significance of these issues of setting will be discussed in more detail in Chapter 8.

Architecture

The purpose-built factory appears to have comprised two principal types of structure, the factory house itself, which doubled as an administrative and domestic space, and the warehouses used for storing goods. To these may be added ancillary structures such as kitchens and stables. A letter of complaint written by the Karwar factors from their temporary factory in 1669 provides important evidence for what they deemed to be the key components of a factory, '*...we should goe to build a a warehouse onely of stone, fitting to receive any quantity of goods...and when all that is done, wee have neither house, stable nor cockeroome for ourselves.*'²⁰² It might be assumed that these requests were finally met when they finally took possession of their purpose-built factory in 1672.

Of the five factories in question, very little descriptive detail survives for those at Porakad and Old Kayal - both were likely modest stone-built structures based on the fleeting descriptions given. Bhatkal is slightly better served. It was conceived as a fortified house and good building stone was evidently set aside for this purpose, though it is unclear how far advanced its construction was at the time of its abandonment. At Calicut the factory house was evidently ranged around a courtyard, perhaps suggesting a structure more influenced by the local indigenous architectural form (see Chapter 7).

Karwar is the only of the purpose-built factories whose architecture can be reconstructed in any kind of detail from the historical sources alone, and from the 1670s it is described by both Fryer and Abbé Carré as being built in European style. Contemporary documents

²⁰² Foster 1927, 272

give further detail: stone walls four-feet thick bonded with lime mortar tempered with oyster shell, a structure of two/three storeys with an upper terrace and two/four bastions mounted with canon. Its depiction on the 17th-century, 'Chart of the Bay of Carwar' (which as has been noted, may actually date to the earlier Courteen period) also suggests a house utilising European architecture replete with fenestration and a gabled-roof (Figure 12). Whilst any assertion made with reference to this basic rendering should be treated with due caution, Jarvis's work on contemporary English house sites on the island of Bermuda demonstrates the important contribution that analysis of 17th-century surveys can bring to the archaeological study of such sites (see Chapter 2). Further, the resemblance of the structures depicted on the anonymous Karwar chart to the St George's houses depicted in fine detail on Captain John Smith's 1624 'Map of Bermuda with Forts' is compelling (Figure 22).²⁰³

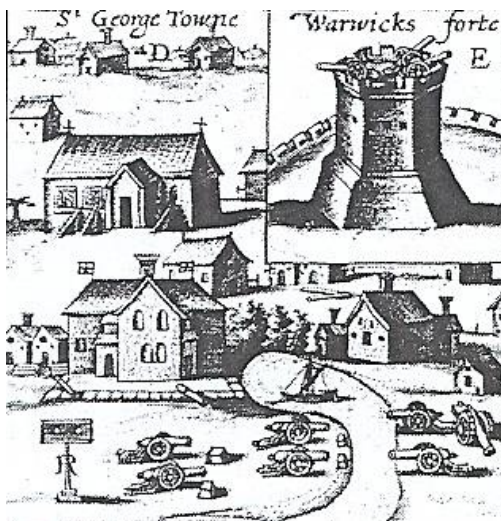


Figure 22: Detail from Captain John Smith's 'Map of Bermuda with Forts', 1624 (from Jarvis 2011)

Further potential evidence for the appearance of the purpose-built factory houses comes from within India itself. The British Library holds a watercolour painted by artist Shaikh Abdullah in 1819 which depicts a ruined structure of obvious European style located on India's east coast at Jellasore, Balasore district, Orissa (Figure 23). A commentary attached to the image notes that the Company established a factory here in 1634 and that the painting may be, '*...part of the old East India Company's factory*'.²⁰⁴ The presence of a factory in Balasore at this date is confirmed by Keay (1991) who notes that it, '*...supplied*

²⁰³ Jarvis 2011, 60

²⁰⁴ <http://www.bl.uk/onlinegallery/onlineex/apac/other/019wdz00000677u0000000.html>, accessed 28.08.14

*the Coromandel factories with rice, sugar and a few items of trade, especially raw silk and muslins.*²⁰⁵



Figure 23: 'A ruined bungalow, perhaps part of the old East India Company's factory, at Jellasore, Balasore district' by Shaikh Abdullah, 1819 (The British Library)

Three dilapidated structures are depicted in the painting. The main building, assumed to be the 'factory house', is single-storied (but tall) with a gently-pitched roof. Its footprint is square or rectangular and the walls are constructed from a reddish stone, or perhaps brick, with quoins at each corner. A greyish render appears to have been applied to the walls but only survives in patches. Pairs of large rectangular windows are present in at least three sides of the building and on one side these flank a blocked doorway.

A smaller building with a chimney breast lies adjacent which may be a kitchen. The walls are constructed in a similar manner to the main building. Its roof is missing but the upper courses of its wall have been lain to accommodate a steep pitch. There are no windows but a doorway opens out in the same direction as the main building.

On the opposing side of the main building part of a single-storied structure can be seen. It has a low pitched roof and a small doorway giving into a dark interior. It is reminiscent of a barn or stable, but could also be a small warehouse.

²⁰⁵ Keay 1991, 68

If the buildings depicted in the painting are indeed the ruins of the Company's 17th-century factory at Ballasore, its scale would appear to be modest, perhaps more in-keeping with the establishments at Bhatkal, Old Kayal and Porakad than Calicut and Karwar. Regardless of its size though, the Ballasore factory appears to comprise the key elements of a purpose-built factory – a stone-built house in European style with ancillary structures – that emerge from the descriptive accounts of the Malabar and Kanara factories, especially Karwar.

Thus, on balance, it would seem safe to assume that, Calicut aside, the familiar, strongly-fortified European-style factory house at Karwar was the architectural form which the other purpose-built factory sites in Kanara and Malabar might have eventually taken had they achieved similar longevity. In contrast to the factory houses, the architecture of the warehouses serving the factories is not mentioned in any of the documents; whereas the omission of such detail from the Company correspondence is perhaps surprising, inclusion in the descriptive accounts written by visitors to the factories was probably deemed unnecessary due to their utilitarian nature.

The Factory Estate

The wider factory estate is mentioned in connection with the holdings at Karwar, Bhatkal and Porakad, but it is only for Karwar that useful detail emerges. Here the factory structures sat within an estate or compound, gated and perhaps enclosed in part by a hedge which today appears to be respected by modern boundaries. Palm trees still grow in large numbers hereabouts and were clearly viewed as a useful food resource by the English factors, being referenced in connection with not only both phases of factory at Karwar, but stipulated by the Porakad factors when setting out their ideal attributes for a new house.

At Bhatkal a burial place is referred to (and was evidently made use of), something which must have been a requirement for all of the purpose-built factory sites, though cemeteries in the other locations are not mentioned. Similarly, provision at Bhatkal was made for a wharf, an important feature given the riverine/maritime locations of the factories, the significance of which is discussed in Chapter 8.

CHAPTER 5: THE 'HOVEL'

Summary

The two factories confidently allocated to this type are the first East India Company establishment at Karwar and the short-lived factory at Tanore. On the basis of its temporary nature, the proto-factory at Cranganore may also have been of this type though the absence of tangible evidence means that such an attribution remains merely speculative. At Karwar and Tanore the 'hovel' factories were conceived as temporary solutions to circumstances preventing the occupation of purpose-built factories. The body of documentary evidence for each is slim, but quite descriptive. In both cases the term 'hovel' was applied by contemporary observers to describe pre-existing structures that were occupied by the English factors and thereby functioned as temporary factories. The structures they describe are basic forms of indigenous architecture still commonly used in coastal south-west India and beyond. It should be noted that the term 'hovel' was not a label given by the Company to a category of factory, rather it has been used by the author to group these factories based on contemporary descriptions. In addition to the factories at Tanore and Karwar, it may be speculated that similar structures were probably used at some of the other factory sites for short periods during their construction - but no evidence for this has been found.

The Evidence

Karwar (1662-66, 1668-1672)

The evidence for the temporary 'hovel'-like factory at Karwar is drawn entirely from transcriptions of Company correspondence contained in Foster and Fawcett's *'English Factories'* series (1923-1936). Whilst relevant documents are few in number, the evidence they contain makes explicit the basic character of the factory buildings at this time. The temporary factory was probably located in Kadwad, across the creek from the purpose-built factory site discussed in Chapter 4 (Figure 9).

As mentioned in the previous chapter, at Karwar the East India Company operated from temporary accommodation while the construction of its purpose-built factory was hampered by a series of delays and reversals. By January 1662 the temporary factory had received its full complement of staff: Robert Masters, Richard Ball and John Child whose

remit was simply, '*there to reside and to procure what their stocke will reach unto...*'²⁰⁶ The nature of the temporary factory is not made explicit at this time, but by March of the following year a Company letter mentions, '*...the best way for the bringing downe of pepper from Carwarr Country to Carwarr House...*'.²⁰⁷ The naming of the factory suggests it was considered well-established, despite the fact that the first mention of work actually starting on the purpose-built factory was still ten months distant.²⁰⁸

Following Company's temporary withdrawal from Karwar (1666-68) details of the re-occupied factory begin to emerge, details which somewhat underwhelm the epithet 'Carwarr House'. The first of the documents is a letter dated 1st September 1669 in which the factors complain,

This place is soe very moist that wee can hardly lay anything out of our hands, but in a day or two it moulds, rotts, or the wormes get into it; and wee have neither house nor warehouse fitting to putt upp a piece of cloth in or any other sort of goods that is lyable to any the abovementioned inconveniences. And besides, what warehouses wee have are all thatcht, lyable to all accidents of fire. And if wee should goe to build a warehouse onely of stone, fitting to receive any quantity of goods, it would cost 2 or 300 pagodas; and when all that is done, wee have neither house, stable, nor coockeroome for ourselves.²⁰⁹

The basic nature of the factory at this time and use of thatched structures is later corroborated in a letter written by Caesar Chamberlain who had been appointed Chief Factor in 1670. Fawcett (1936) quotes Chamberlain's description of their temporary accommodation - a 'thatched hovel' which had been enlarged and tiled by Master as a precaution against fire.²¹⁰ As Master had passed away in Karwar on Christmas day 1665,²¹¹ Chamberlain's comment is an important piece of evidence as it confirms that the temporary factory was located in the same place either side of the 1666-68 hiatus.

²⁰⁶ Foster 1923, 76

²⁰⁷ Ibid., 94

²⁰⁸ Ibid., 121

²⁰⁹ Foster 1927, 272-73

²¹⁰ Fawcett 1936, 299

²¹¹ Foster 1925, 88

Were it not for a single piece of correspondence dated 19th December 1681, it could be assumed that the 'hovel' and the newly constructed factory (finally occupied in 1672) were located in close vicinity to each other in the modern-day village of Sunkeri. However, the factors, writing from the latter location, reported that the Dutch had built a warehouse on the opposite side of the river where they had been granted the site of the former English factory.²¹² Fawcett later states that the Dutch took possession of 'Carwarr House' on 25th December 1681 but left shortly afterwards as they were at war with the Rani of Kanara.²¹³

On this basis, the most probable location of the factory between 1662 and early 1672 would have been the town of Kadwad across the mouth of the creek, rather than the northern bank of the Kali River itself (Figure 9). Given their circumstances a factory here in a semi-urban setting, within view of the ground allocated for their purpose-built factory, would surely have been more appealing to the Company than setting up across the river in a location without infrastructure. More pertinently, for the town officials such a location would have allowed them to monitor the Company's activities for political as well as fiscal purposes.

Tanore (1666 - c.1673)

The evidence for the basic character of the factory at Tanore is found in the accounts of those who visited the factory during its short lifespan. Edward Barlow and Abbé Carré's remarks are cursory but informative, Dr Fryer's account is more descriptive. Whilst Tanore features moderately in the transcribed Company correspondence in the '*English Factories*' series, there is no evidence for its setting or appearance. The modern village of Tanur lies on the coast c.30km south south-east of Calicut (Figure 24).

The factory at Tanore, like the temporary factory at Karwar, was born out necessity rather than design. It was established at the invitation of the local Raja in the autumn of 1666 following the Company's ejection from Calicut.²¹⁴ Although the Calicut factors Smeaton and Barbor operated from there until mid-1668, no details of the factory's precise location and form appear in their correspondence. However, following their return to Calicut in July 1688, the factory at Tanore appears to have operated as a subsidiary to the larger establishment and it is from this slightly later period that evidence for its appearance emerges.

²¹² Fawcett 1954, 382

²¹³ Ibid., 393

²¹⁴ Foster 1925, 218

The first to pass comment was Edward Barlow who laded pepper at Tanore in 1670 aboard the *Experiment*. He noted that an English merchant was based there for the Company's factory at Calicut and also that the village lay on the shore, with no bay or river. The indigenous houses were '...worse than our sheep cots in England.'²¹⁵ Barlow's journal also contains a sketch of the coast at Tanore which shows only a bare stretch of palm-fringed sand, not too dissimilar to the setting of the existing village.

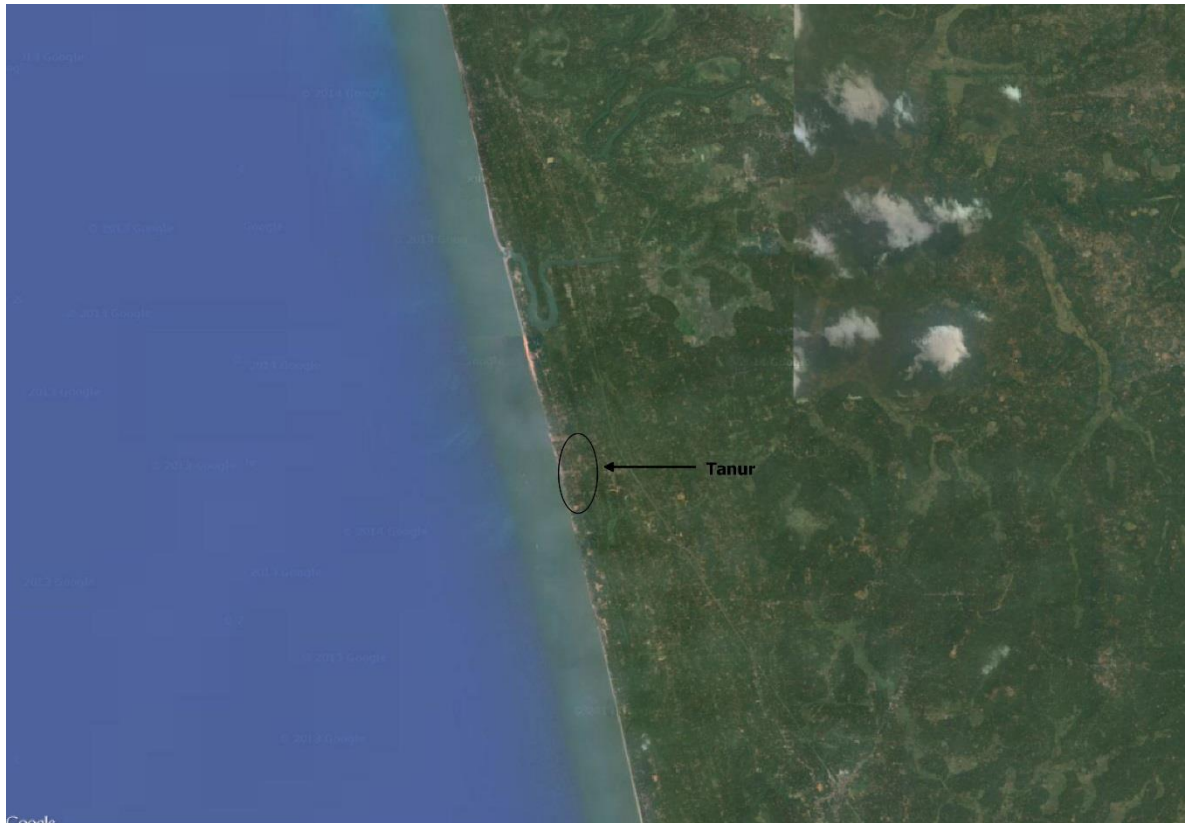


Figure 24: The situation of modern-day Tanur

In November 1773 Tanore was visited by both Dr Fryer and Abbé Carré; Fryer was less than impressed with what he saw (and heard) there,

Their Houses are little Hovels or Hogsties, the best of them scarce worth the Name of a Booth. The English House is in the fashion with the rest, covered all over with Cajans²¹⁶, and seated (which they mightily affect) under Trees...After two Nights cold and

²¹⁵ Lubbock 1934, 192

²¹⁶ Assumed early reference to the Pigeon Pea (*Cajanus Cajan*), a legume indigenous to India, commonly eaten as *Toor Dal*

disquieted Lodging on the Ground (though under covert of the English House) and an Hellish Consort of Jackalls (a kind of Fox), with the Natives singing and roaring all Night long; being drunk with Toddy, the Wine of the Cocoe: I was desirous to go Aboard...'²¹⁷

Abbé Carré's view was more sympathetic; having visited the factory and being offered accommodation there he remarked simply, '*I declined with thanks, seeing how much they were embarrassed, as the house was not large enough to lodge all their own officers.*'²¹⁸

The factory must have been closed shortly afterwards as no further reference is made in the correspondence and accounts of the period.

Definition of type

With only two examples informed by a modest body of evidence, these factories have been assigned to this type partly on the basis that this is how contemporary observers labelled them. It should be noted, however, that use of the term 'hovel' in a 17th-century context had a very specific meaning, simply defining a shed.²¹⁹ This definition might well serve the type of structure used by the Company at Karwar and Tanore, but the accounts of those who had first-hand experience of these factories also carry a clear pejorative tone more in-keeping with the modern usage of the word 'hovel'. Fryer's account is particularly scornful; he uses the terms 'hovels' and 'hogsties' in the same breath to describe the village houses at Tanore before likening the factory to them. Later in the same publication he uses the term 'shed' directly (distinguishing it from a house) whilst seeking accommodation in a Deccan village.²²⁰ It would appear then that these factory structures did physically resemble sheds – and at the same time this characteristic was considered both impractical and distasteful by those making the observation.

This duality is reflected in the definition given in Samuel Johnson's Dictionary (1755), albeit written almost a century after the accounts presented above. Johnson defined a hovel as either, '*A shed open on the sides and covered overhead*' or more generally as '*A mean habitation; a cottage*'.²²¹ Both definitions could conceivably apply to individual structures within the basic factory unit, but from the brief descriptions given, perhaps

²¹⁷ Fryer 1698, 52-53

²¹⁸ Fawcett & Burn 1947, 695

²¹⁹ Green 2010

²²⁰ Fryer 1698, 125

²²¹ <http://johnsonsdictionaryonline.com/dictionary/1020.gif>, accessed 22.01.14

Tanore conformed more closely to the former type of structure and Karwar, apparently the more developed of the two sites, to the latter.

Beyond this generic label, certain basic characteristics are common to the factories described at Karwar and Tanore. These are summarised in Table 5.

	Karwar	Tanore
Riverine setting	X	
Coastal setting		X
Semi-urban setting	X	X
Thatched structures	X	X
Later tiled	X	
Described as 'hovel'	X	X
Warehouses mentioned or inferred	X	X

Table 3: Concordance of 'hovel' attributes derived from documentary sources

The maritime/riverine settings are in-keeping with those of the purpose-built factories identified as key in the previous chapter. Here also semi-urban settings are noted; both factories most likely being attached to pre-existing indigenous villages.

The architectural form of the structures was almost certainly that used for the village houses – this much is made explicit by Fryer in his description of Tanore. Dellon (1698) gives a very basic description of the Malabar houses of the period, '*Their Houses are commonly made of Earth, and instead of Tiles they cover them with the Leaves of the Cocoe-Tree, it being a great rarity here to see a House of Stone or Brick*'.²²² Mayer (1952) writing of Malabar houses of the mid-20th century makes a similar observation,

Poor houses are made from dried mud, larger ones from red, sun-baked laterite brick, plastered over. Formerly no low-caste house was allowed a tiled roof...²²³

It may be speculated that the factory houses and warehouses might be variants on the same basic architectural style. As might be expected given their relative importance to the Company, the factory at Karwar appears to have been the more developed of the sites, but other than the reported tiling of its roof, both sets of descriptions are evocative of

²²² Dellon 1696, 107

²²³ Mayer 1952, 47

variants of basic indigenous architecture that are still widely used in the coastal regions of south-west India (Figure 25).



Figure 25: Thatched huts belonging to the fishing community at Karwar (photo: author)

The circumstances surrounding the occupation of the two factory sites cited above make plain the fact that the Company clearly did not set out to utilise this type of accommodation by choice. The factors who fled to Tanore and set up a temporary factory there did so in the belief that their lives, not least their livelihood, were endangered in Calicut.²²⁴ At Karwar, as detailed in the previous chapter, the intention of the Company had been to start the construction of a purpose-built factory immediately upon arrival with the help of the town's governor. This plan was disrupted by a sequence of unforeseen events which ranged from loss of local patronage to structural collapse. In the end the 'hovel' was used for almost a decade but the intention was always to vacate these unsatisfactory premises at the earliest reasonable opportunity.

²²⁴ Foster 1925, 211-18

Whilst Karwar and Tanore are the only locations for which the Company's use of basic indigenous structures or 'hovels' emerge, similar instances cannot be ruled out at other factory sites. Temporary accommodation would surely have been required at all of the purpose-built and fort sites unless local rulers offered (or rented) the English better appointed accommodation whilst construction work took place. However, no evidence had been found to shed further light on this matter.

CHAPTER 6: THE FORT

Summary

Of the five factories assigned to this type, those at Tellicherry (1683) and Angengo (1695) may be considered the definitive examples on the basis that both developed into four-sided 'bastion' forts of a style pioneered by the Dutch and then widely used by the European companies throughout South Asia. The Company's factory at Baliapatam (1669) – the first of their Malabar factories to be described by contemporaries as a fort – is also discussed in this chapter but its style appears to have been something of a hybrid, a proto-bastion fort superimposed on the ground plan of a pre-existing indigenous hillfort. To these three examples are added the factories at Retturah (1688) and Brinjaon (early 1690s) on the basis that they were conceived as sites for fortification prior to the acquisition of nearby Anjengo. While the extent to which either site was actually fortified is at best ambiguous, related correspondence affords a useful insight into the Company's idealised blueprint for a fort.

The Evidence

Baliapatam (1669-1675)

The origins, development and withdrawal of the Company's short-lived factory at Baliapatam (Valapattanam) are relatively well documented. The following information has been drawn from transcriptions of Company correspondence in Foster's and Fawcett's '*English Factories*' series (1927 and 1936 respectively), supplemented with the first-hand accounts of Dellon, Abbé Carré and Fryer, all of whom visited the factory during the first half of the 1670s.

The factory was established in 1669 following negotiations with the Prince of Cannanore (Kannur) who offered the Company the site of an abandoned indigenous hillfort overlooking the Valapattanam River.²²⁵ Alexander Grigby, the former Porakad factor, visited the site in May 1669 and reported his findings to Surat the following month,

...it being about 4 miles from the barre of Billiapatan, being an old Mallabarr fort, but well situated by the rivers side, and water enough for a vessel of 40 or 50 tunns to come upp to it, but noe accommodation of

²²⁵ Foster 1927, 258-268; Fawcett & Burn 1947, 152

dwellinghouse or warehouses, and solitary, there having formerly bin a bazar but now quite disinhabited...²²⁶

The local name of the fort was Cota Cuna,²²⁷ which Fryer (1698) translates as 'fair palace'.²²⁸ Modern-day Kottakkunnu lies c.8km upstream from the mouth of the Valapattanam on its southern bank (Figure 26).



Figure 26: Approximate location of the Company's fortification at Baliapatam

In November 1669 Grigby was sent back to Baliapatam, armed with a set of draft articles to present to the King of Cannanore and instructions to settle the factory in the manner in which he saw fit.²²⁹ Among the clauses were stipulations for protection against European rivals (the Dutch and the French were both seeking to expand their influence into the King of Cannanore's territory at this time) and for the cost of construction work at the factory to

²²⁶ Foster 1927, 263

²²⁷ Ibid., 258; Fawcett & Burn 1947, 152

²²⁸ Fryer 1698, 56; 'Cota' translates to 'fort' in the Malayalam dialect used in the southern islands of the Philippine archipelago (http://jenson.in/dicts_mal.php?word=cota&submit=1, accessed 27.08.14)

²²⁹ Foster 1927, 265

be met by reduced customs duty.²³⁰ They were duly signed and by July the following year the factory was described as 'half-settled' with the construction of two warehouses nearly complete.²³¹

Gabriel Dellon visited the factory soon after and wrote of its setting, '*The English Factory of Batiepatan, is above a League and a half from the Sea-side, built upon rising Ground just on the very River-side, which will not bear any Ships of Burthen.*'²³²

He was followed by his countryman, the Abbé Carré and also Dr Fryer, both of whom leave good descriptions. The Abbé Carré writes,

It is on a high eminence, which on one side has a very agreeable view of a large river with several branches flowing through pleasant meadows. On the other side is a sort of jungle...All the main buildings on the side of the river are difficult of access, being above a very steep slope, and the rest of them, including a large courtyard, are encircled by walls with four small bastions, on which are some pieces of artillery. These guard the land-side, which is the weakest. Below this fortress are a large building for storing goods and about twenty houses, forming a little village in a pleasant palm-grove, where they lodge their soldiers and some poor Indian Christians that have come in the English service...²³³

Fryer arrived at the factory aboard a small vessel manned by lascars, or '*Sea-men of the country*'.²³⁴ Of the factory he writes,

It having the advantage of an Hill, has an easy Prospect over the Water, as broad here as our Thamesis; and over the Verdant Meadows, which spread themselves Westward, till Hills of Cardamoms do bound the sight, running from thence North by East...On the East a gravelly Forest with tall benty Grass, offers, besides its taking Look, diversity of Game; as Hares, wild Boars, Tigres, and wild Elephants...

The Place is now resigned to the English, though the Gentiles were unwilling to desert it, it being an Arch-Brachmine's Seat, where was a

²³⁰ Ibid.

²³¹ Ibid., 290-91

²³² Dellon 1698, 147

²³³ Fawcett & Burn 1947, 707

²³⁴ Fryer 1698, 55

small Pagod standing in the middle of the Yard well endowed, till they had robbed their Gods of their Gold and Silver; and now they are said to be dumb and sullen because of the English.

It is walled about by the English with Mud, except the two round Points towards the land, whose Foundations and Bastions are of Stone. They have Fourteen small Guns mounted; here are twenty two Soldiers, besides Factors: The Air so salubrious, that never any English are remembered to lay their Bones here. The Fort is a Tetragone from Corner to Corner.²³⁵

The surviving Company correspondence from this period is dominated by reports of troubled relations with the local *moplas*, who resented the English purchasing pepper from sources outside the local bazaar and thus escaping a tax levied by the local mosque.²³⁶ Nevertheless, trade continued to flourish with factors reporting high demand for European goods such as lead, copper, coral and broadcloth.²³⁷ However, the outbreak of the Third Anglo-Dutch War in 1672 followed by the death of the Anglophile Prince of Cannanore in August 1673 left the factory in a precarious position. After much prevarication it was eventually closed in the spring of 1675.²³⁸

Tellicherry (1683-1794)

The Company's fort at Tellicherry (Thalassery) is now a historic monument maintained by the Archaeological Survey of India which occupies a coastal promontory to the west of the town's centre (Figure 27). Although the factory has a designated catalogue within the India Office Records, the documents therein post-date the 17th century.²³⁹ Therefore, the evidence presented below, which includes descriptions of the French fort which the English inherited, is drawn mainly from Company correspondence to 1684 from Fawcett's *English Factories* series (1955) and the accounts of those who visited the factory, namely Dellon and Abbé Carré (early 1670s) and Hamilton (early 18th century). Company correspondence for the 1690's contained within the IOR's vast and poorly catalogued Original Correspondence catalogue has necessarily been used sparingly, but from it the 1690's emerge as a period of flux whereby the Company refrained from investing in the factory's development. Hamilton (1727) identifies troubled relations with the indigenous

²³⁵ Ibid., 56-57

²³⁶ Fawcett 1936, 290-91, 306-7

²³⁷ Ibid., 308

²³⁸ Ibid., 341

²³⁹ IOR/G/37

populace as the eventual catalyst for full-blown fortification in the first decade of the 18th century. A painting of the factory dated c.1731 has therefore been taken into consideration as it shows the fort's setting and surviving elements of its 17th-century morphology. The painted scene also bears close resemblance to the extant fortification (Figures 28 & 29).



Figure 27: The location of the fort at Tellicherry

The East India Company originally acquired the factory site through fortuitous means. Established by the French in June 1670,²⁴⁰ it was abandoned by its occupants in April 1682 whereupon the Calicut factors, Chase and Mitchell, successfully petitioned the Prince of Cannanore for its possession.²⁴¹ A description of the early French factory is given by Gabriel Dellon (1698) who, according to the historian Robert Orme (1805), was present at the time of its construction.²⁴² He states that the land was sold to the French by the Prince of Cannanore and developed in an indigenous architectural style,

²⁴⁰ Orme 1805, 174

²⁴¹ Fawcett 1954, 394-95

²⁴² Orme 1805, 174

There is a House Built according to the Indian Fashion, of Wood and Earth, upon a rising Ground in the midst of an Orchard, containing betwixt 2 and 300 Cocoe-Trees; and something lower there is a large inclosure full of Cocoe and other Fruit-Trees, surrounded with a small Ditch...No sooner were the French put in possession of the place, but they caused a House with Commodious Watch-Houses for their Merchandizes to be Built out of such Materials as the Country afforded, all which, they fortified with all possible diligence...²⁴³



Figure 28: The ground plan of the extant fort at Tellicherry

He also describes a small 'market-town' located to the rear of the factory and the dwellings of fishermen near the shore.

The Abbé Carré's visit came a little later and his description of the factory suggests that the early Indian-style fort had been consolidated,

²⁴³ Dellon 1698, 121-22

It has a fine main-building and big attached warehouses, which are situated on a high and pleasant place, surrounded by great ditches like a fortress. Facing the sea, there is a large terrace, at the end of which the Company's flag is flown in the highest spot. On the land-side there is a lovely garden which provides vegetables all the year round.²⁴⁴



Figure 29: View of Tellicherry Fort (photo: Sabukeralam)

It was probably this arrangement that the Calicut factors took possession of in 1683 amid protests from the French and Dutch. Surat, nevertheless, ordered that the factory be maintained and pepper was soon being laded in quantity.²⁴⁵ A year later a warning that the French-built house would unlikely see out another monsoon was issued from Tellicherry but Surat refused to sanction any outlay on the existing building, stating that the Company would rather build a new one from scratch.²⁴⁶ It is clear that at the turn of the 1690s the Company were still deferring the decision to invest in proper fortification of the site, '*We are very willing to make a thorough settlement at Tellechery and Retturah but to tell you*

²⁴⁴ Fawcett & Burn 1947, 705

²⁴⁵ Fawcett 1954, 395-96

²⁴⁶ *Ibid.*, 415

*the plaine truth our conditions are such at present that we can't admit of going upon any fortification this yeare...*²⁴⁷

By the beginning of the 18th century, however, the situation had changed; Alexander Hamilton's description of the fort gives some impression of the substantial improvements that had been made by that date,

...pretty well fortified with Stone Walls and Cannon. The Place where the Factory now stands belonged to the French, who left the Mud-walls of a Fort built by them, to serve the English when they first settled there, and for many Years they continued so, but of late no small Pains and Charge have been bestowed on its Buildings; but for what Reason I know not, for it has no River near it that can want its Protection, nor can it defend the Road from the Insults of Enemies, unless it be for small Vessels that can come within some Rocks that ly half a Mile off, or to protect the Company's Ware-house, and a Punch-house that stands on the Sea-shore a short Pistol-shot from the Garison.²⁴⁸

He goes on to say that the catalyst for the fortification was a prolonged period of animosity between the Company and the local *nairs* which occurred in the first decade of the 18th century. The Archaeological Survey of India cite 1708 as the year of the existing fort's completion.²⁴⁹

Hamilton also describes some of the ancillary buildings that served the factory at this time,

They have a little Church standing within the outward Wall of the Factory, served by a Portuguese Priest or two, who get their Subsistence by the Alms of the Parish. And the English have Punch-houses, where the European Soldiers make Oblations to Baccus...²⁵⁰

Shortly after this account was published in 1727, the fort was painted by leading English landscape artist George Lambert and maritime artist Samuel Scott. Dated c.1731 it presents a detailed rendering of the factory and its environs from an offshore perspective

²⁴⁷ IOR/E/50:42

²⁴⁸ Hamilton 1727, 296-97

²⁴⁹ Undated ASI pamphlet entitled, 'Forts of Kerala and Tamil Nadu'

²⁵⁰ Hamilton 1727, 298

(Figure 30). The painting originally hung in the Court Room of East India House in Leadenhall Street, London, one of six views of the Company's principal holdings; it is now housed in the British Library. Although dating slightly later than the period in question the architectural detail observed is worthy of consideration here.



Figure 30: Lambert and Scott's 1731 painting of Tellicherry (The British Library)

The rectangular fort is shown to the left of the painting with tall stone ramparts with triangular or diamond-shaped bastions. A gatehouse is located off-centre in the long, sea-facing rampart; it appears to be approached by a flight of steps, or perhaps a bridge spanning a ditch. Inside the fort is a tall gabled building with what appears to be a timber galleried frontage and tower-like structures in stone at either end (Dellon's 'Watch-Houses'). The roof is pitched and tiled - this is presumably the factory house. Opposing this are two long stone warehouses; one at least two-storied, the other a single storey. Both have rows of regularly spaced windows and shallow pitched and tiled roofs. Behind these structures is the suggestion of a courtyard with a low fenestrated block beyond. In front of the fort is a walled compound with a tall, narrow structure built into it, perhaps the church mentioned by Hamilton; inside the compound are possible grave monuments. Outside the factory, on the right hand side of the painting, are a smattering of one- and

two-storied buildings in European style (some, perhaps 'Punch-houses') that run down to the shoreline where there is a very tall, commercial-looking structure with an open façade divided into three bays. A number of figures dot the shore in front of this and canoes are pulled up on the beach. Three East Indiamen are at anchor in the bay together with a couple of Malabar junks.

The painting presents a detailed snapshot of the factory and the embryonic town of Tellicherry early in the second quarter of the 18th century. A number of the basic elements of the factory's later 17th-century morphology appear to have been retained but based on the Company correspondence and Hamilton's account, most of the European style structures depicted were probably built just after the turn of the 18th century to replace those of the French fort.

Today the fort preserves a number of the features depicted by Lambert and Scott including the ramparts, flanking bastions (though the angle of the south-eastern rampart and structure of the bastion have been altered) and characteristic high arched entrance gate. The ASI describe it thus:

Its arched entrance is partly screened by a wall and surmounted by an ornate arch flanked by two soldier guards. Tellicherry fort overlooking the sea, raises to a height of 10 metres and is oblong on plan. It was built of laterite blocks with high round holed walls [loop-holes] and strong flanking bastions. The small redoubts on most of the out laying hills have long since disappeared, but Tellicherry fort is in fair state of preservation. A lighthouse marks the site of an old redoubt.²⁵¹

However, the arrangement of buildings occupying the interior of the existing fort are different to those of the early 18th century; a low warehouse-like structure has replaced the original factory house in the north-western part of the fort with much of the remainder given to lawns and stands of trees (Figure 28). The two large warehouses shown in the painting have also gone. On the seaward side of the fort a small whitewashed church now occupies a walled enclosure in a location corresponding with the conjectured churchyard shown in the painting.

²⁵¹ http://www.asithrissurcircle.in/Monuments.html#Tellicherry_fort, accessed 26.5.14

Retturah and Brinjaon (1688-c.1696)

There are very few published references to the factories that operated in the late 1680s/1690s from Retturah and Brinjaon in territory of the Queen of Attingal. Where mentioned by contemporary writers it is usually in the context of the negotiations leading to the establishment of the fort at Anjengo. As their establishment post-dates the coverage of the '*English Factories*' series, original correspondence contained in the IOR catalogues and transcribed by the author have been used. The modern-day counterparts of Brinjaon and Retturah are widely accepted to be the modern-day port of Vizhinjam which lies c.40km south of Attingal and the village of Vettoor which lies just south of Varkala, 10km north-west of Attingal (Figure 31).²⁵²

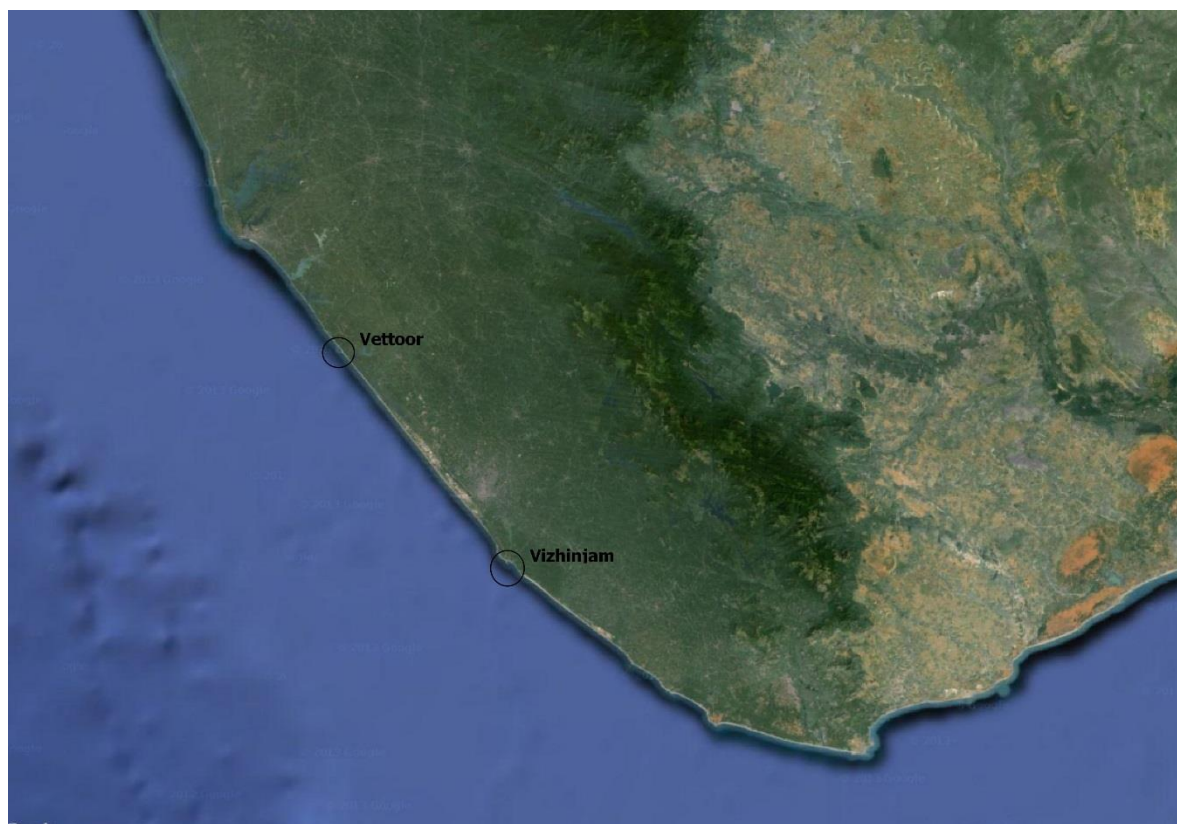


Figure 31: The situations of the modern-day settlements of Vizhinjam and Vettoor

Retturah and Brinjaon were established following protracted negotiations dating from 1678 when the Queen of Attingal first wrote to the Company offering trade in her dominions.²⁵³

²⁵² IOR/G/1; More 2003, 341

²⁵³ Fawcett 1954, 365; More 2003, 341. More cites two further early factories in Attingal, at Betture and Kalliquille. These were probably short-lived satellites of Retturah, in the same way that the factors at Old Kayal maintained a station up-river at Alwartirunagari (see Chapter 4).

As will be seen, whilst both factories were conceived as forts from the outset, attempts to attain this status were foiled by a combination of local opposition, Company dictate and the challenging monsoon climate. Nevertheless, the Company correspondence contains details of the planned fortification of these sites (particularly Brinjaon) prior to the fort at Anjengo being built and for this reason they are discussed here.

Although the preamble for the IOR factory records for Anjengo state that both factories were established in March 1688,²⁵⁴ Retturah appears to have been the first to be meaningfully settled. A letter dated July 28th 1688 from Bombay to the Calicut, states, '*...by all means encourage the settlement and we will for certain send ships and men to fortifie in the Queens Countrey...*'²⁵⁵ However, by November 1690 the fortification had still not been built, the Company refusing to sanction the necessary works.²⁵⁶

In the early 1690s a series of letters were written to the Company from Retturah by the factor Daniel Acworth; much of their content relates to difficulties faced during the establishment of the factory at Brinjaon. In December 1692 he reports that soldiers and guns have been landed at Brinjaon because the company's flagstaff there had been cut down by the, '*meanness of the Dutch*'.²⁵⁷ The flag had been raised, he claims, on the order of the Queen of Attingal; however, no mention is made of a factory, the inference being that the land hereabouts was notionally allocated to the English in order to deter the Dutch who had '*...conquered all along upon the coast except this Queenes dominions, which they alsoe threaten and it's believed they will come with force of arms against the Queen of Attinga, which made us more earnest to fortifie it...*'²⁵⁸

On 31st May the following year Acworth writes from Brinjaon where,

[The Dutch] will be contriving means to supplant your honours until they are firmly settled and fortified in the Queen's Dominions... we have procured[?] from her to raise our flagstaff and to build a small[?] house (where myselfe and the soldiers now reside in) allsoe to make a mudd wall round the house which before were able to finish, the raines and wind severall times demolish it...²⁵⁹

²⁵⁴ IOR/G/1

²⁵⁵ IOR/E/3/50:42

²⁵⁶ IOR/E/3/50:42

²⁵⁷ Ibid.

²⁵⁸ Ibid.

²⁵⁹ IOR/E/3/50:36

Acworth goes on to report that following their failure to build in mud, they attempted to build the wall in stone but were prevented from doing so by the local officials. He also speculates on the fortification of another site - a coastal promontory west-north-west of the current house - and makes constant references to the threat posed by the Dutch.

In July 1693 the Company's most senior servant in India, Sir John Goldsborough, wrote to Acworth from Madras seeking clarification of the situation in Attingal and of the progress made at Brinjaon in particular,

You have omitted to write [about?] either brick or stone for to build a fortification with, but by your peons I understand there is plenty of stones. Nor have you mentioned what watter there is where you thinck to fortify...²⁶⁰

In a second letter to Brinjaon, also dating to July 1693, Goldsborough issues instructions to then newly appointed Chief Factor, John Brabourn,

The description Mr Acworth gives of your place says that it may be made allmost Impregnable, and that there is not such another place to fortify on from Cochin to Cape Comorin, but the mannor of the fortification that is to be built must be left to you there and those you carry with you...if your ground will permitt I thinck a square fort as Madrass is (but not soe bigg) is the best figure, and to be made with 4 bastions and flanck[ers?].²⁶¹

Brinjaon was clearly never built to this specification but whatever did exist on the ground in mid-1694 was described as a 'ffort' by Brabourn in a letter which also contains terms for the fortification of land at Anjengo - one of which was that Brinjaon to be returned to the Queen.²⁶²

Anjengo (1695-1813)

Like Tellicherry, the final incarnation of the East India Company's factory at Anjengo (Anchuthengu), near Trivandrum, survives as an historical monument maintained by the Archaeological Survey of India (Figures 32-34).²⁶³ It was founded at the very end of the period in question, consolidating the Company's presence in the territory of Attingal and replaced its earlier factories at Rutterah and Brinjaon.

²⁶⁰ IOR/E/3/50:115

²⁶¹ IOR/E/3/50:118-121

²⁶² IOR/E/3/50:224

²⁶³ <http://www.asithrissurcircle.in/Monuments.html#Anjenjo>, accessed 26.5.14

Documentary sources contained within the factory's designated IOR catalogue date exclusively from the 18th and early 19th centuries but the preamble to the records gives a summary of the circumstances which led to its establishment and completion in 1697.²⁶⁴ Greater detail is contained within the collection of general original correspondence for the period.²⁶⁵

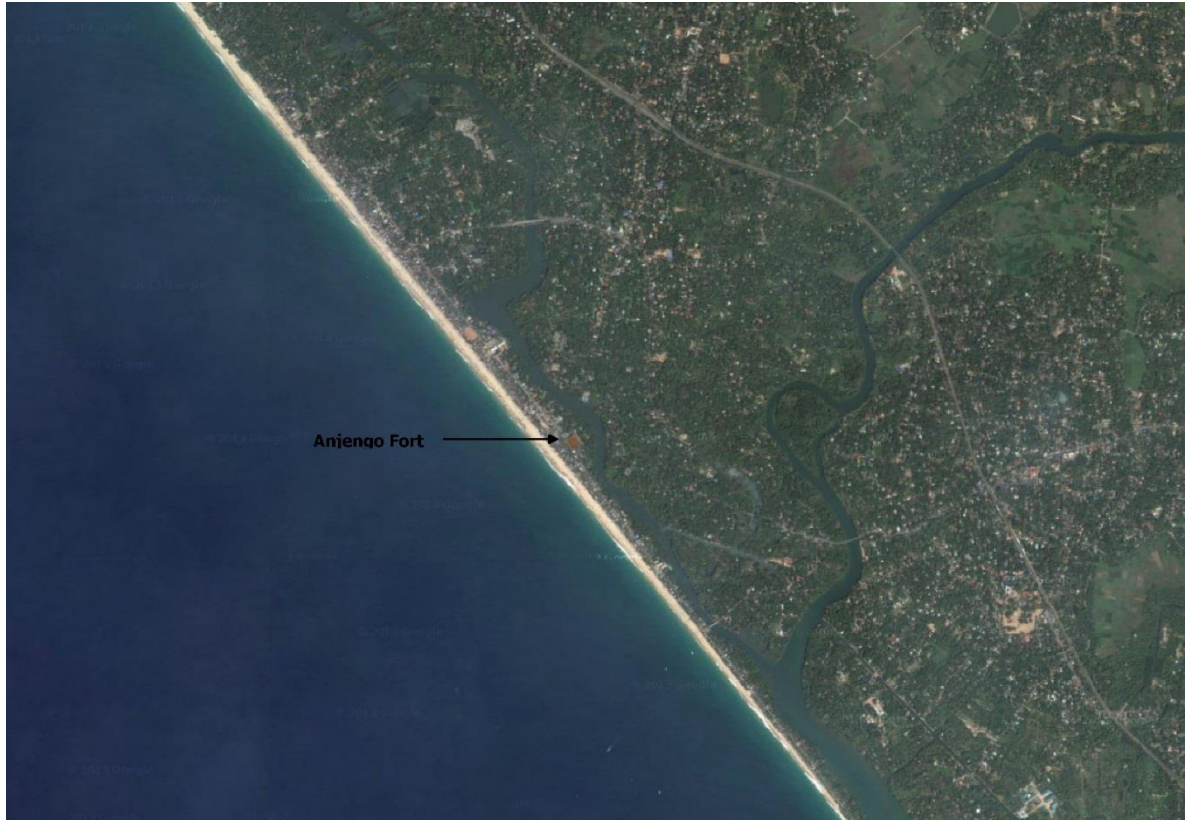


Figure 32: The location of the fort at Anjengo

Original correspondence from this period includes a translation of the *Ola*²⁶⁶ for the factory's settlement granted by the Queen of Attingal on June 29th 1694. As a result of this agreement, the Company finally gained permission to establish a stone-built fort in Attingal,

²⁶⁴ IOR/G/1

²⁶⁵ IOR/E/3:50-51

²⁶⁶ As *firman* or decree

I do give unto them the hill of the Tonges which is in Anjengo to fortifie with stone and to abide there for ever...the Company may build Warehouses, for their goods and houses for their people to dwell in...²⁶⁷



Figure 33: The ground plan of the extant fort at Anjengo

A monopoly on the region's pepper was also granted and custom duties set. In a covering letter dispatched by John Brabourn he makes an important observation, noting that the land allocated for the warehouses and employees' houses will lie outside the perimeter of the fortifications.²⁶⁸

Exactly a year after the grant of the land, the Anjengo factors wrote to the Company giving details of their progress.²⁶⁹ They complain of the problems procuring materials for the fort, specifically the overpriced local stone, bricks, timber and *chunam*, a type of plaster made from lime-shell and sand. Whilst the rough cutting of stone and manufacture of bricks can

²⁶⁷ IOR/E/3/50:223

²⁶⁸ IOR/E/3/50:224

²⁶⁹ IOR/E/3/51:88-95

be organised locally, they request the Company sends a master mason, carpenter and smithy with assistants together with skilled stone cutters. Reference is also made to the previous dispatch of a draft showing the type of fort that ground would permit them to build,

...which is a square of about 90 yards and will carry about 60 or 70 gunns. The east and west sides are defended very well with the sea and the river. The passage to the South end between the sea and the river is very narrow not above 40 yards and the north end about a hundred so it is not possible to bring many men to assault us.

Edward Barlow witnessed the construction of the new fort when stopping at Anjengo during his second voyage to the Malabar in 1695-97,

...the East India Company were newley settled a factory and building a new fort... [the Queen] invited the Company to settle a trade in her dominions, and gave them leave to build a fort but how long they will be willing to live in peace with the Company and with the fort that they have built, I know not.²⁷⁰

Unfortunately Barlow gives no detail of the factory's setting or physical appearance, but his comments regarding the Queen's tolerance of the English were well placed. In 1697, regretting her decision to allow the English to fortify, she sent a sizable force, three to four thousand strong, to evict them.²⁷¹ The fort must have been in a state of near completion because the attack was easily repelled by the English who later retaliated by burning a section of the town's Muslim quarter.

²⁷⁰ Lubbock 1934, 466-67

²⁷¹ More 2003, 346



Figure 34: View of the extant fort at Anjengo, looking south (photo: Popular Temples of India)

Following its completion, Alexander Hamilton writes critically of the fort's location,

It stands on a sandy Foundation, and is naturally fortified by the Sea on one Side, and a little River on the other. It is in the Dominions of the Queen of Attinga, to whom it pays Ground Rent...But I wonder why the English built their Fort in that Place, for there is not a Drop of good Water for drinking within a League of it; and the Road has a foul bottom for anchoring, and continually a great Surf on the Shore...²⁷²

Though post-dating by some margin the period question, the artist James Forbes' engraving of 'Anjengo on the Coast of Malabar' (1772) gives an impression of the setting of the fort and the small town that grew up around it (Figure 35). The view is assumed to be quite accurate as it was drafted during Forbes tenure of the post 'warehousekeeper' at Anjengo.²⁷³

²⁷² Hamilton 1727, 331-32

²⁷³ Forbes 1834, 213



Figure 35: James Forbes' engraving of 'Anjengo on the Coast of Malabar, 1772' (The British Library)

The low, squat fort, perhaps little changed since its construction, occupies the right hand side of the engraving. Bastions project from the corners of its ramparts, which has a centrally placed narrow arched opening on its seaward face. A tall, flat-roofed, fenestrated structure rises above the fort's parapets and the Company flag flies atop a tall flagstaff. The fort appears to be enclosed within a low crenelated wall which Forbes himself refers to as the 'lower batteries'.²⁷⁴

In essence this is the same fort that survives to this day, although the structures occupying its interior are gone, replaced by lawns and clusters of trees. The ASI describes the monument as follows,

The Anjengo fort is square on plan. It has four bastions. Two of the bastions face the sea and other two the landside. In addition there are eighteen or twenty gun points facing the sea. There are many tombstones

²⁷⁴ Forbes 1834, 213

at Anjengo. The earliest epitaph dates back to 1704. The epitaph of Deborah Brabourn...the wife of John Brabourn, Esquire, commodore of Anjengo. She was born in 4th November 1676 and died in September 2nd 1704.²⁷⁵

Definition of Type

Although the imperative to fortify their factory houses had been present since the Company's first arrival in the Malabar and Kanara regions (see Chapter 4), it wasn't until the final third of the 17th century that the terms 'fort' and 'fortress' begin to be used in their own right. The first such factory site was at Baliapatam where an indigenous fort site was redeveloped for the use of the Company. The fort that the English inherited from the French sixteen years later at Tellicherry appears to have comprised a cluster of European-style structures built from local materials and enclosed by a defensive ditch. By the first decade of the 18th century, this had developed into a more cohesive fortification replete with ramparts and bastions, the type of structure repeatedly petitioned for at Retturah and Brinjaon and later realised from the outset at Anjengo.

Although there is considerable variance in the development of each of these sites, a number of physical attributes were common to all, regardless of whether the fort site was abandoned at the 'hybrid' stage of its development, as at Baliapatam and Retturah/Brinjaon, or attained a military architectural form that survived beyond the end of the 17th century as at Tellicherry and Anjengo. Additionally, it is clear from the contemporary documentary sources that many of the physical attributes attained by the latter category were those which the Company factors stationed at the withdrawn sites considered the ideal. It is on this basis that the factories have been assigned a common typology. The physical characteristics of each site are summarised in Table 4.

Setting

In common with the setting of the Company's purpose-built factories, the importance of securing sites lying in close proximity to the coast and communicating with a river system is clear. Some 8km upstream, the fort at Baliapatam lay furthest from the coast but its location was clearly considered a good one in terms of both defence and commercial advantage. Anjengo's location, sited on a spit of land sandwiched between river and sea was also considered an ideal defensive position and although Hamilton (1727) berates its

²⁷⁵ ASI website: <http://www.asithrissurcircle.in/Monuments.html#Anjenjo>, accessed 24.5.14

lack of drinking water, the fort successfully withstood sieges in 1697 and again in 1721.²⁷⁶ Hamilton, however, makes an instructive point in questioning the purely coastal setting of the fort at Tellicherry, '*for it has no River near it that can want its Protection*'. The importance of riverine and coastal settings will be discussed at length in Chapter 8.

Beyond the forts' spatial relationship to river and sea, another key physical attribute shared by all of the sites is their use of elevated topography. An important defensive consideration, topography appears to have dictated the eventual appearance of the forts, particularly the size and shape of their defensive circuits (see below).

	Baliapatam	Tellicherry	Rutterah/Brinjaon	Anjengo
Riverine setting	X			X
Coastal setting		X	X	X
Elevated topographical setting	X	X	X	X
Former indigenous fort site	X			
Former European fort site		X		
Ditched		X		
Four-sided ground plan	X	X		X
'Mud' ramparts	X		X	
Laterite/Stone ramparts		X		X
Bastions	X	X		X
Mounted with artillery	X	X		X
Warehouses: intra-mural		X		
Warehouses: extra-mural	X			X
Associated village	X	X		X
Associated orchards		X		
Church/chapel		X		

Table 4: Concordance of fort attributes derived from documentary/pictorial sources

Fortification

Although the typology is based on a small sample size, the available evidence suggests that from the later third of the 17th century the Company sought to build forts in the Malabar and Kanara regions to clear European military architectural blueprints. As will be discussed in Chapter 8, this represented a departure from previous policy in the region

²⁷⁶ More 2003, 353

and a move towards that of the Coromandel Coast where fortifications had been built as early as 1626 at Armagon and 1640 at Madras.²⁷⁷

Whereas pre-existing fortifications existed at Baliapatam and Tellicherry, for the purpose of clarity it is the military-style of fort which was retained and developed into the 18th century that will be considered the definitive form. Before looking at the European-style forts in more detail however, mention must be made of the fortifications inherited at Baliapatam and Tellicherry and attempted at Brinjaon. The former was described after an early reconnaissance as an '*old Mallabarr fort*' with no further reference to the type of construction used for its fortification beyond that offered by nature. The English added 'mud' walls and stone bastions, the whole conforming to a tetragon. At Tellicherry the primary defensive feature of the French fort appears to have been a ditch, although Hamilton also mentions a 'mud' wall. At Brinjaon Acworth also attempted to build a mud wall around the factory house but was thwarted by the monsoon storms. In each of these cases it is possible that mud (soil) in the literal sense was used to form unrevetted earthworks, a defensive strategy which had been trialled by the Dutch but quickly abandoned following their initial expansion into tropical regions where such defences were susceptible to erosion by heavily rainfall.²⁷⁸ In other instances, however, the 'mud' may actually have been laterite, a building material commonly used in indigenous architecture which is soft when cut into blocks (being technically a soil) but later sets like rock.²⁷⁹

Laterite was also used for the construction of some of the European military-style forts in South Asia, including Tellicherry. Usually referred to as 'bastion forts' or 'artillery forts', they were based on a style of fortification developed in northern Italy in the early 16th century to counter the use of heavy artillery and had since become the pre-eminent form of European fortification.²⁸⁰ The style utilised arrow-shaped bastions projecting from low, thick ramparts which minimised their targetable profile whilst maximising the defender's field of fire. The forts were usually surrounded by wide ditches, the up-cast from which was formed into banks and faced in stone to construct the ramparts. Nelson (1984) presents a model of the basic plan (Figure 36), which was adapted as necessary.

²⁷⁷ Keay 1991, 68-69

²⁷⁸ Jayasena 2006, 112

²⁷⁹ Nelson 1984, 1; http://wgbis.ces.iisc.ernet.in/energy/water/paper/TR109/tr109_mainframe.htm, accessed 27.08.14

²⁸⁰ Barrass 2011; Jayasena 2006, Nelson 1984

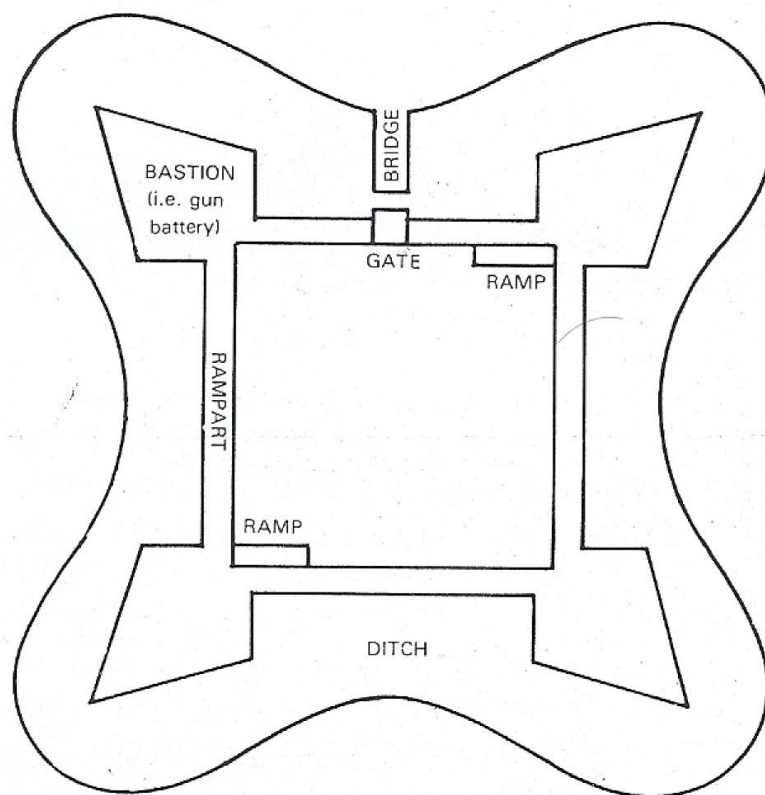


Figure 36: The basic elements of a bastion fort (from Nelson 1984²⁸¹)

The four-sided bastion fort appears to have been the type favoured by the Company in south-west India at this time, though ditches were not generally employed. Writing to Brinjaon in July 1693, Sir John Goldborough recommended building such a fort, using his residence at Madras as an example. Fort St George was originally built as a square bastion fort but by the end of the 17th century the original fortification, together with the rest of the European settlement, was enclosed with a large pentagonal curtain wall (Figure 37). Although Goldborough's advice was probably never implemented at Brinjaon, it is evident at Anjengo where (unlike Madras) a textbook square bastion fort survives to this day.

The written testament of John Brabourn, Anjengo's first Chief Factor, indicates that a draft plan of the fort was sent to the Company for approval soon after the *O/a* for its construction was granted by the Queen of Attingal. The design took into consideration the topography of the allotted site which, he suggests, would accommodate a square fort of 90 yards (c.82m), thus enclosing an area of c. 0.67ha. In comparison, the ramparts of the surviving fort prescribe a square of 60 yards (c.57m) and enclose an area of c.0.32ha, whereas the

²⁸¹ Nelson 2004, 3

distance between the salient of the bastions is 85 yards (c.78m). However, the distance between the front (seaward) wall of the outlying crenulation (Forbes' 'lower batteries') to the line of the rear rampart is 88 yards (c.80.5m), a figure close to Brabourn's original figure and perhaps more indicative of what was considered the extent of the fort at the time of its construction. Indeed, the 'lower batteries' may have been considered an integral part of the fort's design, in effect a type of breastwork known as a *fausse-braye*, which afforded a lower field of fire across the approach to the fort (in this case the shoreline).²⁸²

A four-sided bastion fort was also built at Telliicherry, but here a rectangular ground plan was used; presumably this best suited the topography of the site. Prior to the alterations that have resulted in its current 'lop-sided' appearance, its original dimensions were probably c.122 yards (c.112m) x c.54 yards (c.49m), thus enclosing an area of c.0.55ha, almost twice as large as Anjengo Fort. As at Anjengo, an adjoining walled compound lay on the seaward side of the fort, although this appears to have been utilised a graveyard rather than for defensive purposes.



Figure 37: Extract from plan of Madras, 1726, showing original bastion fort (from Wikimedia Commons)

²⁸² Jayasena 2006, 112

The type of fortification used by the English at the Tellicherry and Anjengo factory sites (and previously at Fort St George, among others) has close parallels with the 17th-century forts serving Dutch settlements in South Asia and beyond and also with the Danish fortification at Tranquebar. Jayasena (2006) even terms this type of fortification, where the flank of the bastion projects at right angles from the curtain wall or rampart, the 'Old Netherlands system'.²⁸³ In contrast to the poorly understood English sites, Dutch examples have seen much recent historical and archaeological research, with sites such as Sadras on the Coromandel Coast (a rectangular bastion fort), Katuwana in Sri Lanka and Fort Fredrik Henrick on Mauritius (both for certain periods square forts) providing useful comparison (Figure 38).²⁸⁴



Figure 38: The comparative ground plans of forts at (l-r) Tellicherry, Anjengo, Sadras and Fort Fredrik Henrick (not to scale)

A variety of building materials appear to have been used for the construction of the forts and these were most likely no different to the materials used by indigenous fort builders. As mentioned, pre-existing indigenous-styles of fortification such as those at Baliapatam and Tellicherry probably relied heavily on locally sourced laterite as a building material. This was commonly used for the construction of indigenous Malabar forts, a prominent example being the massive fortification at Bekal; elsewhere, granite was also used by the local stone masons.²⁸⁵ As noted above, contemporary references to building fortifications in mud probably relate to the use of laterite blocks, although mud in the literal sense may also have been used in certain instances and was traditionally used as a render for low-caste housing.²⁸⁶

The preference was for European-style forts to be built in locally sourced laterite (Tellicherry) or stone and brick bonded with *chunam* lime mortar (Anjengo). Building in

²⁸³ Ibid., 114

²⁸⁴ Subramanian 2003, Jayasena 2006 and Floore and Jayasena 2010 respectively

²⁸⁵ ASI website: <http://www.asithrissurcircle.in/Excavations.htm> (accessed 24.5.14); Undated ASI pamphlet entitled, 'Forts of Kerala and Tamil Nadu'

²⁸⁶ Mayer 1952, 47

brick again draws parallels with the contemporary fortifications of the Dutch who often imported them from Europe,²⁸⁷ presumably functioning as ballast on the outward voyage. However, there is no evidence to suggest that the English were also importing building materials at this time, on the contrary, at Anjengo they appear to have reluctantly paid above the odds to secure the required raw materials then appealed for skilled masons, carpenters and smiths to work them.

Associated infrastructure

In addition to the fortifications themselves, the key elements of a Company factory - administrative/domestic space for the factors (the factory house) and warehouses for the stockpiled goods - were necessary components of the fort sites. In the absence of detailed written descriptions of the 17th-century factory houses from the sites in question, it seems probable that their architectural forms were similar to the unfortified purpose-built factories discussed in Chapter 5; in essence European-style houses.

Whereas the warehouses at Baliapatam and Anjengo, appear to have been originally located outside the defensive circuit of the fort, at Tellicherry the arrangement as depicted in Lambert and Scott's painting appears more in keeping with what one might expect. Substantial structures can be seen rising above the parapet of the fort. One building seems to incorporate a timber gallery and is assumed to be the residential and administrative element: the factory house. Two other long structures with distinctive regular rows of windows are almost certainly the warehouses. Their form is not dissimilar to a description given of the typical East India Company warehouse in early 19th century London, a 'regular oblong' perforated with a 'multitude of windows'.²⁸⁸ The placement of these principal structures, tucked into the opposing corners of the forts sea-facing ramparts, bears comparison with the Dutch fort at Sadras where the warehouses lie in the south-eastern and north-eastern corners of the fort.²⁸⁹ The style of the warehouses themselves differs though as the extant Dutch examples have barrel vaulted roofs whereas the English appear to have used use low pitched gables.

A characteristic common to Baliapatam, Telicherry and Anjengo was the formation of a small village next to the fort whose principal occupants were the Company's indigenous employees and soldiery - in the absence of written descriptions this accommodation might reasonably assumed to be basic. At Tellicherry, by the early 18th century the garrison was

²⁸⁷ Ibid.

²⁸⁸ Brayley et al 1814, 771

²⁸⁹ Subramanian 2003

also served by extra-mural 'punch-houses', and a small church – neither, however, are described though their character might be inferred from Lambert and Scott's work.

CHAPTER 7: THE RENTED HOUSE

Summary

Evidence for Malabar/Kanara factories based in rented houses is limited to the single example of Calicut. Here the first explicit reference to the Company paying rent for its premises dates to the early 1670s, although it is likely that the precedent for such an arrangement had been set prior to the completion a purpose-built alternative (early-mid 1660s) and possibly much earlier when the Company first arrived in the Malabar (1616-17). Few descriptive details of these buildings emerge from the consulted sources but it is suggested that a town house utilising hybrid traditional Keralan and Islamic styles as favoured by Calicut's large population of Muslim merchants is the most likely architectural form. A parallel for the rented factory in indigenous urban style is the Company's original presidential headquarters at Surat.

The Evidence

Calicut (1616-17, 1659-1660/61, 1664-65, 1670-75)

Transcriptions of original correspondence presented in Foster and Fawcett's '*English Factories*' series provide the principal evidence for the Calicut factory. These have been supplemented by brief details from Dr Fyer's account of his visit to the rented factory in 1673.

Following his departure from Cranganore, the Company's factor George Woolman relocated to Calicut on April 22nd 1616. The records, including a letter written by Woolman himself on 15th July of that year give no details of this proto-factory but mention is made of leaving part of his stock in one of the Zamorin's houses at Cranganore.²⁹⁰ It therefore might be assumed that the most likely arrangement in Calicut was a rented house provided by the Zamorin. In his letter Woolman bemoans the lack of trade; he was dead barely a month later and the factory was withdrawn in March 1617.²⁹¹

The Company first re-established trade from Calicut in March 1659 when the factor Robert Masters was stationed there to buy red wood and cardamoms; upon his return to Surat at the end of the year Masters carried a letter from the Zamorin inviting the Company to

²⁹⁰ Foster 1900, 316-319

²⁹¹ *Ibid.*, xii; Watson 1976, 390-91

return. The Presidency were confident that a factory could be settled there, writing to the Company in London, ‘...*apprehending the convenient lying of the factorye, the quiet trading in it (though amongst Mallabars), returned Mr. Masters at short warninge...*’²⁹² In the event, the venture was short-lived and by March 1661 the factory had been withdrawn.²⁹³

The Company next sent factors to the city in October 1664, again at the request of the Zamorin. Foster (1923) summarising a letter of instruction issued to Charles Smeaton and Robert Barbor, states that it was assumed that, ‘*the house inhabited by their predecessors would be at their disposal*’, suggesting that the factory was to be based in a pre-existing Calicut town house.²⁹⁴ This is confirmed in the factor’s first dispatch from the new factory which Foster again summarises, ‘*They had been well received by the officials, who assigned them a house and gave them permission to display their flag*’.²⁹⁵ The factors were based here until a purpose-built house was completed in June 1665 (see Chapter 4). No structural details emerge from this period, but Smeaton and Barbor were evidently relieved to leave, declaring their, ‘...*joy for our being that very morning freed, by an entrance into our new house, from those many inconveniences wee had by reason of our former ill accommodation, sustained in that place.*’²⁹⁶

Although it is assumed that rent was paid during these two periods, the first specific reference to the rental of a house dates to 1671 in the aftermath of the great storm which destroyed the coastal part of the town, including the Company’s purpose-built factory (see Chapter 4). Fawcett (1936), quoting a letter sent to Surat, states that the incumbent Chief Factor Alexander Grigby arranged to hire a house to replace the ruined factory.²⁹⁷ This rented house appears to have been maintained until the new purpose-built factory was occupied in 1675.

The Company correspondence again fails to offer descriptive evidence for this factory’s appearance and whilst this last period of displacement coincides with the visits of a number of the contemporary diarists, only Dr Fryer provides useful comment. His description is brief; following a visit to Calicut in November 1673 he notes, ‘*Ashore the first*

²⁹² Foster 1921, 221

²⁹³ Foster 1923, 27

²⁹⁴ *Ibid.*, 357

²⁹⁵ *Ibid.*

²⁹⁶ Foster 1925, 97

²⁹⁷ Fawcett 1936, 292

*House facing us was the English; near it were placed six small Pieces, resounding our Salutes at our Entry...*²⁹⁸

Beyond this reference to the house being near the shore, no evidence has been found for the precise location of this or any other of the Company's rented properties in Calicut. However, they were probably located in the mercantile hub of the city in or close to (or offshore in the case of the pre-1670s rented factories) the areas known today as Kuttichira and Thekkepuram which contain Calicut's oldest mosques, bazaars and traditional *nalukettu* houses.²⁹⁹ The areas lie next to each other on the northern side of the Mampuzha River (Figure 19) where a press of anonymous buildings are depicted on Edward Barlow's sketch of Calicut in 1670 (Figure 20).

Like many of his contemporaries Fryer also mentions the devastation wrought on the town by the storms, reporting that the former Portuguese fort was now fully submerged beneath the ocean, the town dilapidated with, '*...not an House befitting a Christian...*' but still in possession of a good '*Buzzar*'.³⁰⁰

Definition of Type

With so little available evidence, any definition of type that moves beyond the simple notion of a pre-existing building rented by the Company must necessarily be speculative. However, certain characteristics of 17th-century Calicut, most notably its close ties to the Muslim world, afford direction to such speculation.

The Kuttichira and Thekkepuram areas of Calicut have traditionally been occupied by the city's Muslim population and preserve a number of medieval mosques and traditional Kerala *nalukettu* houses distinguished by high-gabled roofs and courtyards (Figure 39).³⁰¹ Though essentially a form of *nair* architecture, the houses combine traditional indigenous elements with Islamic influences imported by the Muslim merchants of the medieval period.³⁰² It is possible that the Company rented such a house.

²⁹⁸ Fryer 1698, 54

²⁹⁹ <http://www.keralatourism.org/malabar/thekkepuram-kozhikode.php>, accessed 5.07.14. The term *nalukettu* is defined as an assemblage of four blocks or edifice of four halls – see L Manohar's paper 'Lifestyle and climate responsiveness of traditional houses of Kerala', <https://spa.academia.edu/lakshmiManohar>

³⁰⁰ Fryer 1698, 54

³⁰¹ <http://www.keralatourism.org/malabar/thekkepuram-kozhikode.php>, accessed 5.07.14

³⁰² Kasthurba 2012

Another potential parallel, though further afield, is the type of Islamic courtyard house rented by the Company from the Mughal authorities in Surat. This is the only of the 17th-century factories to have received attention from historical archaeologists and as such benefits from a modest body of relevant published literature.³⁰³ Its architectural form is relatively well understood - many contemporary accounts survive,³⁰⁴ and it is depicted in an engraving of the period (Figure 40). Ovington's description of the house provides typical detail and also makes explicit the arrangements for its rental,

The House provided for the Entertainment of the English at Suratt belongs to the Mogul, and is fitted with the best Accommodations of any in the City. It is situated in the North-West part of it, and is able to give convenient Lodgings to forty Persons, besides several decent Apartments to the President. Our Land-lord Aureng-Zebe is extreme kind and liberal in permitting us to expend the rent, which is 60l. Yearly, either in Beautifying, Repairing, or in additional Rooms to the House, so that he seldom receives much Rent from us. It is built with the Convenience of several Cellars, and Ware-houses, of a Tanque of Water, and an Humhum.³⁰⁵



Figure 39: Traditional Keralan *nalu-kettu* house (photo: KeralaArchitect.com)

³⁰³ Chakrabarti 2003; Mehta 1979

³⁰⁴ Hamilton 1727; Fryer 1698, Ovington 1696; Thévnot 1687, Mandelslo (in Davies) 1669, Herbert 1638

³⁰⁵ Ovington 1696, 388-89

The Early English Factories of South-West India

In the mid-18th century the Company relocated their factory to a Surat fort, on the bank of the Tapti River. The former house, however, appears to have survived as a private dwelling into the 20th century and is subject of a photograph appearing in Rawlinson's publication *British Beginnings in Western India* (Figure 41).³⁰⁶ The structures appearing in the photograph and the contemporary engraving exhibit sufficient architectural similarities for the possibility of their shared origin to be entertained, and were it possible for the structure to be examined today this might be confirmed. Unfortunately the factory has since been demolished but according to a recent article published in The Times of India, an upstanding section of its wall survives at a location close to the later fort, on the Tapti riverfront.³⁰⁷

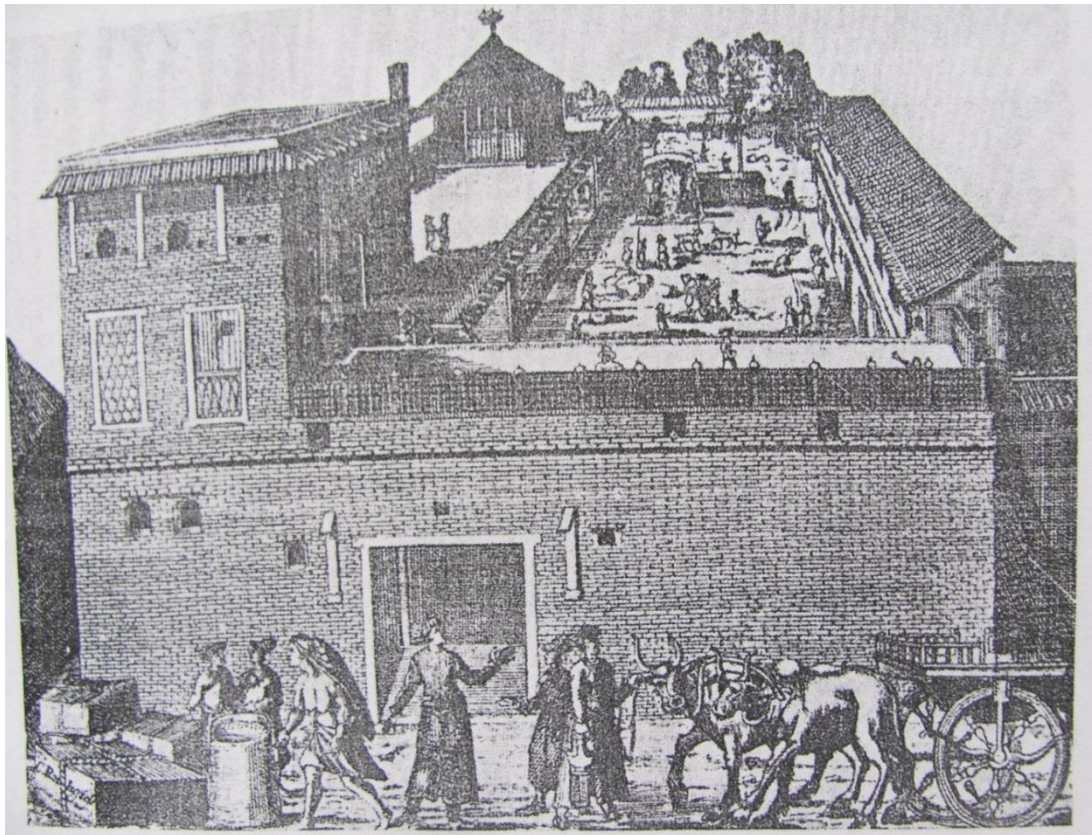


Figure 40: The 17th-century English factory at Surat (From Davies 1985)

Whilst the factory at Surat therefore offers possible architectural and functional comparisons for the rented factory at Calicut, its example is perhaps more useful in terms of the circumstances which dictated its rental by the Company as opposed to utilising

³⁰⁶ Rawlinson 1921

³⁰⁷<http://timesofindia.indiatimes.com/india/First-English-factory-in-India-in-ruins> accessed 27.08.14

another of the factory types. In the strong, Mughal administered port-town of Surat, the use of rented premises was the only option available to the Company as the authorities would not permit Europeans to own property within the city. Calicut, for most of the period in question, was the strongest of the Malabar polities, similarly able to dictate the terms of European presence and trade. Like at Surat, the use of rented premises was most likely the dictate of the Zamorin rather than the express wish of the Company. This observation is discussed in more detail in Chapter 8.

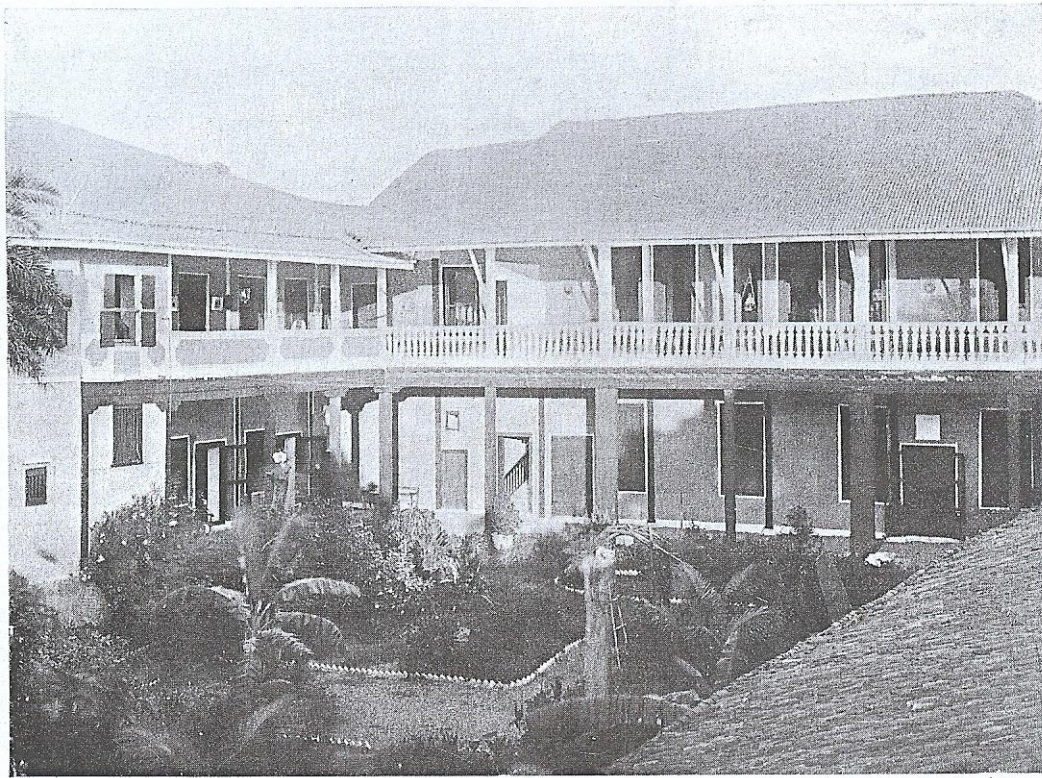


Figure 41: Site of the original English factory at Surat (From Rawlinson 1921)

CHAPTER 8: DISCUSSION

The following discussion considers the various inter-related economic, geographical and political factors that influenced the establishment, maintenance and withdrawal of the English factories. Three short case studies have been chosen to demonstrate how these factors rarely operated in isolation, rather the motivations and catalysts that influenced Anglo-English commercial relations were complex and entwined. Against this backdrop, the discussion goes on to consider whether temporal and spatial trends are evident in the utilisation of the four factory types set out in the putative typology. For comparative purposes a concordance of dates for factory foundation and withdrawal are set against the principal defining events of the period in Table 5.

Commercial factors

Setting aside for a moment the complexities of contemporary Indo-European interactions and the rivalries of the various European companies that played out in south-west India, the basic reason for the English company's presence on Indian soil was to facilitate trade. The commercial imperative was to monopolise the supply of Indian commodities to home markets thereby returning potentially huge profits. In the Malabar and Kanara regions the factories were established to facilitate the acquisition and export of the area's principal commodities: spices and textiles.

The geographical distribution of these commodities can be glimpsed from a review of contemporary documentary evidence for trade conducted from each of the factory sites (Table 7). The commodities assigned to each factory are those which have been noted during the consultation of the primary sources during the construction of the typology. These sources include transcriptions of East India Company and Courteen Association correspondence featuring in the 'English Factories Series' (to 1684),³⁰⁸ select transcriptions of original correspondence held in the India Office Records (generally post-1684)³⁰⁹ and the accounts of contemporary visitors to the factories (spanning most of the

³⁰⁸ Foster 1900-27; Fawcett 1936-55

³⁰⁹ IOR/E/3

The Early English Factories of South-West India

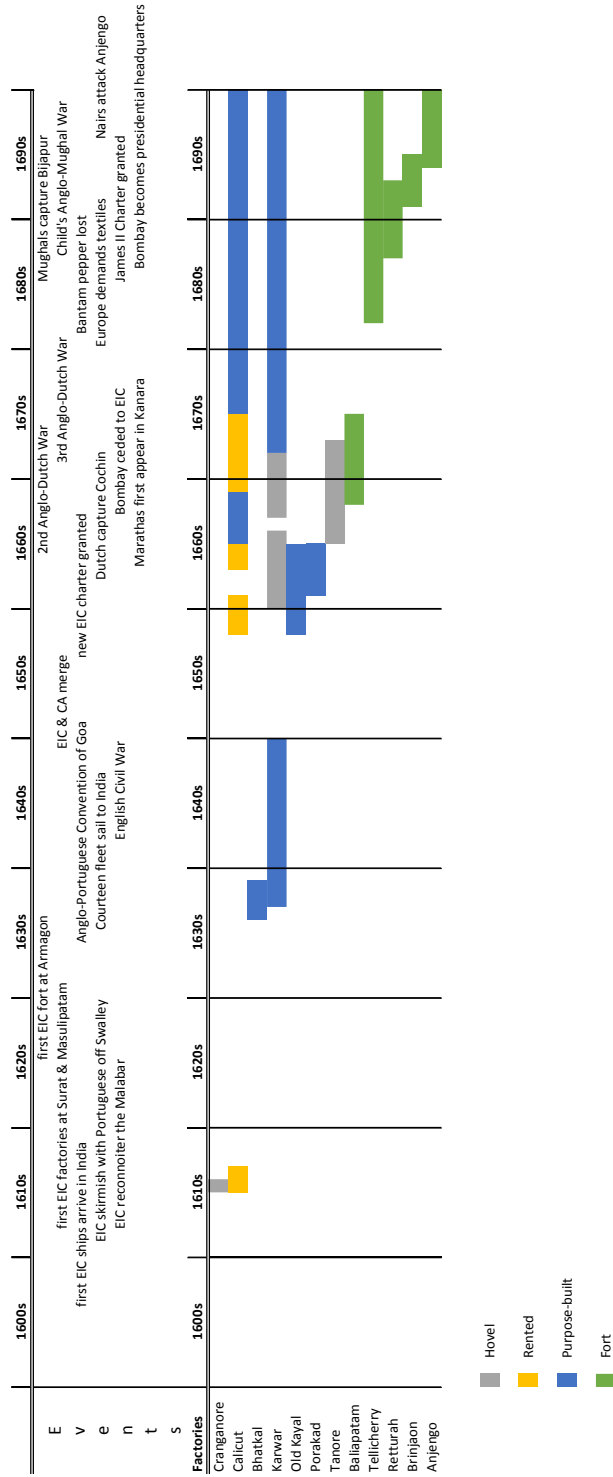


Table 5: Concordance of factory foundation, withdrawal and principal defining events

period in question).³¹⁰ The lists, therefore, may not be exhaustive but comprise the key exports from each factory during the course of the 17th century. For comparative purposes, the areas of the Malabar identified as the principal centres of pepper and textile production by Kieniewicz (1986) and Prakash (1998) respectively are shown on Figure 42. It is worth noting that the factories of the northern Malabar (Baliapatam, Tellicherry, Calicut and Tanore) were not located close to these key areas of production, but were nevertheless highly valued for their pepper.

Thus, of the spices, pepper emerges as the most important commodity. Its acquisition and shipment is evident from all of the factories except the short-lived proto-factory at Cranganore and from Old Kayal which lay east of Cape Comorin, beyond the pepper producing areas. Cardamoms - the second most important of the area's spices - was acquired at Karwar and the factories in northern Kerala where it was widely cultivated: Calicut, Tanore, Baliapatam and Tellicherry. A variety of inferior cinnamon, usually referred to as *cassia lignum* in the contemporary sources, was another important export from these regions. Other spices mentioned in the literature are ginger and turmeric, shipped from Calicut/Tanore region.

The acquisition of textiles, specifically cotton piece goods, was also an incentive for the Company to settle its factories in the south-west; this was the principal export from the factory at Old Kayal. Calico was important to Kavar, where Hamilton (1727) asserts that 50,000 local workers were at one time employed in its manufacture.³¹¹ Lesser quantities of piece goods were also shipped from Bhatkal, Calicut, Porakad and Anjengo.

Other commodities acquired by the English factors include betel (a type of vine leaf belonging to the pepper family coveted for its mild narcotic properties) from Karwar, Baliapatam, Calicut and Tanore;³¹² seed-lac (a resinous insect secretion used as a dye) from Karwar; saltpetre (eagerly sought for military purposes as a major constituent of gunpowder) from Karwar and Old Kayal, timber including 'red wood' (probably Sapanwood, a flowering tree which produces a red dye) from Calicut and teak from Karwar, and fruits and coconuts from both Karwar and Baliapatam.

³¹⁰ Principally Fryer (1698); Hamilton (1727); Mundy in Temple (1907); Barlow in Lubbock (1934) and Abbé Carré in Fawcett and Burn (1947-48)

³¹¹ Hamilton 1927, ; see also Anderson 1854, 45

³¹² Commonly referred to as *paan* in Hindi-speaking India and chewed with areca nut, lime and sometimes tobacco. The betel leaf also has antiseptic properties. The Company were probably acquiring betel for re-sale within the domestic market

These commodities were procured either through exchange with imported goods or purchased with bullion and/or coin - sometimes deals might be struck involving a combination of both. Exchange goods imported from Europe included broadcloth, tin, lead, copper and sword blades. African coral was also widely traded for Indian goods and in the later 17th century, opium from Bengal was imported by the factors at Calicut and exchanged for pepper at great profit.³¹³ It was imported 'treasure' though, particularly silver, which financed the bulk of the Company's transactions, accounting for between 64-91% of the imported collateral in the period in question.³¹⁴ Goods manufactured in Europe were simply too expensive to stimulate widespread demand in India.

	Cranganore	Calicut	Bhathkal	Karwar	Old Kayal	Porakad	Tanore	Baliapatam	Tellicherry	Brinjaon/Rettura	Anjengo
Pepper		X	X	X		X	X	X	X	X	X
Textiles		X	X	X	X	X			X		X
Cardamoms		X		X			X	X	X		
Cassia Lignum/cinnamon		X					X	X		X	X
Saltpetre				X	X						
Seed-lac				X							
Betel		X		X			X	X			
Fruits				X				X			
Coconuts				X				X			
Teak				X							
Red Wood		X									
Ginger		X					X				
Turmeric							X				

Table 6: Principal factory exports as documented in consulted primary sources³¹⁵

The factories in question were thus placed to facilitate this trade, to receive imported goods and treasure and to accumulate and store the resultant export goods pending

³¹³ Hamilton 1627, 315

³¹⁴ Prakash 1998, 106

³¹⁵ Principally various documents transcribed in the 'English Factory Series' and also references in the published contemporary traveller's accounts – see Literature Review

shipment. Chaudhuri (1978) outlines the two basic choices open to the Company regarding the acquisition of export goods; they could buy at inflated prices from ports and wholesale markets or source cheaper commodities closer to centres of production and finance their transportation to the point of export, taking on the commensurate risks involved.³¹⁶ Across the sub-continent both strategies were employed at one time or another, however, in Kanara and the Malabar the documentary sources make clear the preference for sourcing export goods close to the centres of production. The coastal factories, however, were mainly sited some distance from these production centres and the inland marts that served them. Hubli, for example, the principal mart serving the Company at Karwar, was located 120km from the factory, requiring the factors or more usually their native brokers to journey inland to deal with the local merchants and to arrange for the transportation of goods to the coast.³¹⁷ Similarly, the principal pepper growing regions of the Malabar were not located on the coast, but 'up country' in the foothills of the Western Ghats where the soils and climatic conditions were more favourable for its growth.³¹⁸

Although the English appear to have preferred to acquire goods close to source at this time, with exception of the textile industry which will be discussed shortly, they had no influence over modes and scales of production. The factories were marginal to the centres of production not only in geographical terms, but in economic ones too. From an Indian perspective, producers were not dependent on supplying the newly emerging European market, on the contrary, demand for their produce within domestic and traditional Asian markets dwarfed that of the European demand during this period.³¹⁹ Kieniewicz (1986) in summarising the Europeans inability to effect the production and supply of pepper during this period notes that the indigenous elite sometimes took them out of the system entirely by selling pepper at prices lower than market value, thereby maintaining the '*equilibrium that existed in the intermediary sphere...such a concession was possible since Asian demand maintained high purchasing prices...*'³²⁰

The exception to this appears to have been the weaving industry which, in certain instances, the Company were more proactively engaged rather than reliant on local intermediaries. Certainly there is documentary evidence for Karwar factors directly

³¹⁶ Chaudhuri 1978, 141

³¹⁷ Fawcett 1936, 356.

³¹⁸ See Kieniewicz 1969 & 1986

³¹⁹ See Chaudhuri 1969 & 1978

³²⁰ Kieniewicz 1986, 24

employing the services of weavers at Hubli from at least 1670 when an appeal to Surat for more money to pay them was made in August of that year.³²¹ Hamilton (1727) also implies that the weaving industry near Karwar itself was stimulated by the presence of the Company factory there, noting that in the period preceding the Mughal subjugation of Bijapur in 1686 a workforce of roughly 50,000 were engaged in weaving calico (muslin) specifically to supply the demand of the English.³²²

Although this number seems improbably high, this period does correspond with the explosion in European demand for Indian textiles from the 1680s onwards.³²³ Prior to this period textiles were principally valued by the Company as exchange goods for intra-Asian markets, particularly for trading for spices from the East.³²⁴ The increase in European demand for Indian textiles in the later part of the 17th century is reflected in their proportional increase in the Company's overall trade; an all-time peak of 1.76 million pieces was exported from India in 1684, representing 83% of the Company's total trade,³²⁵ and by the end of the century textiles comprised 74% of the Company's total imports to England.³²⁶ It is perhaps no coincidence then that the Malabar and Kanara factories still extant at the close of the 17th century were those whose hinterlands have been identified as the principal weaving areas at this time, namely Karwar, Calicut, Tellicherry and Anjengo (Figure 42).

The demand for pepper, traditionally the area's most important product, also grew in the last two decades of the 17th century. Chaudhuri (1969) states that Malabar and Indonesian pepper accounted for 13% of company's total exports in year 1664-5,³²⁷ and goes on to observe that whereas in the early half of the 17th century the value of pepper imports to England rarely exceeded two million pounds a year, the years 1664-82 saw this value rise to as high as eight million pounds.³²⁸ A rising proportion of Indian pepper exports during this period can be attributed to the Company's ejection from the spice-producing islands of Indonesia which had formally met a large proportion of their demand. The island of Run, long coveted for its nutmegs, was abandoned to the Dutch following the Second Anglo-Dutch War in 1667 and the last of the Company's Indonesian possessions, Bantam, was

³²¹ Fawcett 1936, 254

³²² Hamilton 1727, 264

³²³ Prakash 1998, 111

³²⁴ Ibid.

³²⁵ Robins 2006, 46

³²⁶ Prakash 1998, 122

³²⁷ Chaudhuri 1969, 7. 1664 is the first year that detailed quantitative records of Company's exports survive - see also Prakash 1998, 207

³²⁸ Chaudhuri 1969, 13

lost to the VOC in 1682. Robins (2006) summarises the situation thus, '*Forced from the spice islands, the Company refocused its gaze on India.*'³²⁹ The spice-producing areas of the Malabar and Kanara were therefore relied upon to meet the resulting increase in demand; between 1674 and 1690 the value of Malabar pepper exports alone almost doubled from one million to two million pounds.³³⁰ The extant factories at this time were Karwar, Tellicherry and Calicut – all were engaged in the procurement and export of pepper. To these was soon added Anjengo (after failed attempts to secure factories at Retturah and Brinjaon), located on the edge of the important pepper-producing territory of Attingal.



Figure 42: The principal pepper and textile producing areas, factory locations and rivers³³¹

³²⁹ Robins 2006, 44

³³⁰ Arasaratnam 1994, 112

³³¹ The Malabar areas have been defined with reference to Kieniewicz (1986) for pepper and Prakash (1998) for textiles. The Kanara areas are conjectured from references in the primary documentation.

During the 1680s the Company was relatively well-equipped to adapt to these changes in patterns of supply and demand. In fact, the Company's expansion into the Malabar and Kanara regions in the second half of the 17th century corresponds with what is often considered its 'boom' years following the grant of a New Charter in 1657 and the establishment of a permanent joint stock for the first time.³³² Robins (2006) identifies the years 1658-88 as the most profitable for the Company, seeing shares rise from 60 to 70 pounds in 1664 to 300 in 1680.³³³ It is therefore unsurprising to see that this period of commercial success coincided with the Company extending their operations in south-west India after a 40-year hiatus, starting with Old Kayal and Calicut in 1659 and finishing with their push into the territory of Attingal in the later 1680s.

In addition to influencing the expansion of the Company's broad sphere of influence in south-west India, these economic factors also appear to have played a role in determining the type of factory used by the Company. In this sense, however, commercial considerations were only one of a number of interrelated determinants that are examined in greater detail below.

Geographical factors

Coastal and riverine locations

Whereas access to inland marts and local centres of production influenced the broad location of the factories, the requirement to move imported and exported goods by ship meant that coastal sites necessarily took precedence over those further inland where production and initial distribution centres were located. In order to mitigate this locative disparity, the Company sought to place their factories close to lines of communication linking inland centres of production to coastal trade routes and it is clear from the resultant distribution of Malabar factories that inland waterways were considered the safest and most efficient means of transport. Hamilton illustrates this point when commenting Calicut's trading activities in the latter part of the 17th century; '*The Water Carriage up the River being cheap and secure, the Price of Ophium high, and the Price of Pepper low, so that their Profits were great both Ways...*'.³³⁴ Indeed, the predominance of the region's network of inland waterways for the transportation of goods had little changed by the mid-20th century. Mayer (1952) in his assessment of the Malabar's transport network

³³² Robins 2006, 46

³³³ Ibid., 47

³³⁴ Hamilton 1727, 315

comments that many of the Malabar's rivers are navigable for the last part of their course and concludes simply, '*Transport is difficult by other means.*'³³⁵

Of the factories whose locations have been pinpointed with a reasonable degree of accuracy, those that occupied riverside sites were Bhatkal (Chowtani River), Karwar (Kali), Baliapatam (Valapattanam) and Anjengo (Vamanapuram tributary); Cranganore, Calicut, Old Kayal and Porakad could most likely be added to this group as all of the settlements hereabouts lie on rivers (Figure 42). Conversely, while it might be concluded that Brinjaon and Retturah were most probably located away from rivers, Tanore and Tellicherry are the only factories definitely not to have been located in riverine locations.

This was clearly viewed as a limitation by contemporaries, as evidenced from comments made by Barlow and Hamilton respectively.³³⁶ The absence of a riverside setting not only robbed these factories of the benefits conferred by river transportation and proximity to the infrastructure of an established port town, but also of the security of an estuarine harbour for safe anchorage. In the case of Tellicherry the factory was located directly on the shore, open to the elements and potentially vulnerable to attack from sea. Hamilton alludes to a further disadvantage in the case of Tellicherry, writing, '*...it has no River near it that can want its Protection...*'³³⁷ a statement that suggests that by the end of the 17th century, when Tellicherry was developed into a significant fortification, the factory setting took into account strategic considerations as well as mercantile. This development will shortly be examined in greater detail.

Thus whilst riverine locations were considered advantageous, the large ocean-going East Indiamen used by the English, which ranged in size from 400-800 tonnes,³³⁸ were not able to sail upriver to collect commodities. Contemporary accounts suggest that the navigability of the waterways where factories were sited varied considerably. The most accommodating was the Kali at Karwar, reputedly navigable for ships of up to 300 tonnes; the Valapattanam at Baliapatam could handle ships of 40 or 50 tonnes whereas the Chowtani at Bhatkal would take, '*large fully laden boats*'.³³⁹ Arasaratnam's (1994) categorisation of Indian shipping suggests that many of the indigenous ocean-going craft

³³⁵ Mayer 1952, 8

³³⁶ See Lubbock 1934, 163 and Hamilton 1727, 296-97

³³⁷ Hamilton 1727, 296-97

³³⁸ Arasaratnam 1994, 259

³³⁹ Hamilton 1727, 259; Alexander Grigby quoted in Foster 1927, 263 and Abbé Carré quoted in Fawcett & Burn 1948, 705 respectively. Peter Mundy however describes the Chowtani as '*...not capable of vessels of any burthen*' in Temple 1919, 96

were also too large to carry goods on the inland waterways, the average vessel being in the order of 200-800 tonnes.³⁴⁰ A great variety of smaller craft, however, plied coast-hugging and riverine trade routes of the south-western littoral; these included the *manche*, a sewn boat capable of being beached with its cargo and a small, light oared craft known as the *paroe*.³⁴¹

In addition to employing native craft to carry goods on the inland waterways pending transshipment of produce via the factories to large, sea-going East Indiamen, Foster (1912) suggests that by the early 1640s, the Company at Surat had in their employ, '*quite a fleet of country-built vessels with which to carry on the port-to-port trade...*'³⁴² In addition to victualing the coastal factories, such vessels were used instead of the larger East Indiamen to bring consignments of produce to Surat where they could be stockpiled pending shipment to Europe.

Thus while it is clear that indigenous craft were used to carry Company goods though the inland waterways and coast hugging shipping lanes, the specific types of vessel used and the means by which they were contracted are not well understood, or at least largely ignored in the published corpus. This would therefore clearly be a subject worthy of further research in the wider context of the mechanics of early Anglo-Indian trade.

Urban settings

In addition to coastal and riverine settings, urban locations have also been identified as advantageous to English trade in India. The importance placed on urban settings is summarised by Chaudhuri (1978),

Almost without exception the East India Company's early factories in India were situated in cities and towns, or were very close to them...the officials of the East India Company found in Asian towns a focal point for both the necessary services in intermediate commercial transactions and their own need to co-ordinate all the physical arrangements demanded by the complex operational schedule of long-distance trading. The inseparable bond between communication, trade, and towns was as much a feature of Asia as it was of contemporaneous Europe.³⁴³

³⁴⁰ Arasaratnam 1994, 258-260

³⁴¹ Ibid.; Pearson 1987, 47

³⁴² Foster 1912, xxii

³⁴³ Ibid.

Chaudhuri's assertion that urban centres with pre-existing mercantile communities, infrastructure and associated service industries were focal points for the settlement of Company factories certainly rings true for those early factories settled within the Mughal administered areas of the north (for example Surat, Agra, Ahmadabad, Burhanpur and Broach, all of which were established by 1618).³⁴⁴ However, the situation in the south-west (and Coromandel) was not so clear cut.

Of the twelve factory sites under scrutiny, only those at Karwar, Bhatkal, Calicut and Old Kayal occupied locations close to true urban settings. It might be noted that these four examples were the first to be founded (setting aside the short-lived proto-factory at Cranganore) and here the Company appear to have gravitated, quite naturally, to pre-existing port towns for the reasons set out by Chaudhuri. The remainder, however, were established in villages with a rural aspect. The reasons for these factories being at variance with the norm are probably due to the predominance of locally-produced spices in the Company's exports from the region. The factories did not need to rely on urban market places where a large variety of imported goods were sold for re-export, their purpose was to accumulate pepper and other spices direct from local markets and store it pending shipment.

Nevertheless, none of the factories appears to have been located in previously unoccupied rural locations. This would certainly not have been in the interests of the local authorities whose goodwill the English were completely reliant upon in their pursuance of profitable trade. In reality, whereas certain localities were more attractive than others, the actual sites for the factories were chosen and granted by local patrons, usually in exchange for the payment of customs duties. In this sense urban or quasi-urban sites for English (and other European factories) must have been favoured by the host authorities whereby taxes could be easily collected and the activities of the resident factors scrutinised. The Indian perspective on factory siting would certainly merit further research.

Catalysts for Anglo-Indian trade

The discussion so far has largely concentrated on the mercantile and logistical considerations of the English. However, although the desire to expand trade into the regions of south-west India was manifest soon after the English arrived in India, the acquisition of the desired commodities and the planting of factories was wholly reliant on

³⁴⁴ Foster 1906, v

the collaboration of local partners. From an Indian perspective it is clear that these alliances were rarely ever struck with purely mercantile motives in mind, rather they merged the potential for capital gain with political and territorial considerations. For the English, who unlike the Portuguese and Dutch, generally sought to avoid the expense of enforcing trade through military means,³⁴⁵ this necessitated a degree of strategic opportunism as far as the brokering of trade deals and the foundation of factories were concerned.

The geopolitical and economic mechanisms for foundation were therefore particular to each individual factory and dictated by the strategies of the indigenous ruling elite on one hand and the strength of the Company's position in relation to its European rivals on the other. To this could be added the part that clear and simple opportunism played, usually driven by individuals or small groups of factors taking advantage of the rapidly changing political landscape of the regions in question, albeit as part of larger historical processes. Three case studies have been selected to demonstrate the interplay of these factors: the plantation of the Company's proto-factory at Cranganore/Calicut in 1616/17, the Courteen Association's acquisition of land for a factory at Bhatkal in 1637 and the Company's expansion into the territories of the Queen of Attingal in the late 1680s and 1690s.

The circumstances surrounding the short-lived factories at Cranganore and Calicut present a clear example of a sovereign power, in this case the Zamorin of Calicut, seeking political/military alliance in exchange for the promise of trade. The Zamorins of Calicut had waged sporadic warfare against the Portuguese ever since they arrived in the Malabar and attempted to assert a monopoly on the pepper trade that had hitherto been a freely-traded mainstay of Calicut's commercial primacy. This situation continued into the early 17th century as the Portuguese pursued a war by proxy through their ally the Raja of Cochin. At this time Anglo-Portuguese relations in India were characterised by a series of naval engagements off the coast of western India, most notably a skirmish off Swalley Hole in which the English prevailed, their victory witnessed from the shore by an impressed Mughal army.³⁴⁶ News of such victories is thought to have furthered English interests as far as the Mughal authorities were concerned and would have almost certainly reached Portugal's inveterate enemy, the Zamorin of Calicut.

³⁴⁵ Mayer 1952, 20; Keay 1991, 141 & 219-221

³⁴⁶ Keay 1991, 97

In March 1616, against this backdrop, a fleet under Captain William Keeling anchored off the coast of Cranganore where the Zamorin's army was busy laying siege to the Portuguese castle there. A letter from George Woolman, the subsequent factory's chief factor, provides retrospective detail of the agreement made between the Company and the Zamorin, stating that the latter's representatives boarded Keeling's ship with a message from the Zamorin advocating collaboration '*...beneficial to our nation as profitable to himself*'.³⁴⁷ Another letter written by the Zamorin to King James declares his enmity to the Portuguese and friendship with England, proposes to take the fort of Cranganore and give it to the English, to collaborate with the English to attack Cochin and give it to the English, and finally promises the Company tax-free trade in his dominions.³⁴⁸ As detailed in Chapter 2, a small party under Woolman was subsequently put ashore to settle a factory, motivated by the promise of trade rather than territorial gains at the expense of the Portuguese. The English soon relocated to Calicut when trade was not forthcoming and Woolman died there shortly afterwards in March 1617. Captain Pepwell later arrived with his fleet to find '*matters in a very unsatisfactory position*' and withdrew the factory, it being apparent that the Zamorin's continued friendship was motivated solely by political rather than commercial interests.³⁴⁹

An important threshold in English mercantile expansion into south-west India was crossed when Anglo-Portuguese hostility came to end in 1635 following the signing of the Convention of Goa. This effectively allied the English with the Portuguese against the Dutch, their former allies whose power in the East was rapidly growing to the detriment of both nations. Indeed, since their initial arrival in the East in 1596 Dutch military action had hastened the decline of Portuguese power more than any other factor.³⁵⁰ For the Portuguese then, the Convention resulted in the acquisition of a much-needed ally; for the English it opened up the markets of Goa and other areas of Portuguese influence including the Malabar and Kanara coasts.³⁵¹

The ensuing peace was initially exploited not by the East India Company but its sometime rival, the Courteen Association. In the context of this shift of allegiances, the planting of the Association's first factory at Bhatkal (1637) demonstrates the coming together of three

³⁴⁷ Foster 1900, 317

³⁴⁸ Ibid., 64

³⁴⁹ Ibid., 65

³⁵⁰ Pearson 1987, 133-134; Panikkar 1929, 147

³⁵¹ Keay 1991, 108

important enabling factors; an unsolicited opportunity grasped with both hands, the co-operation of an autocratic indigenous ruler and a clear (but doomed) commercial vision.

The Portuguese truce had been negotiated by William Methwold, the Surat President who had sailed to Goa with a fleet commanded by the prominent Company sea-Captain, John Weddell. By a stroke of great fortune, the diarist Peter Mundy was also aboard one of the ships, the *Mary*. He records an encounter in the waters off Swalley Hole which acted as a catalyst for later events,

The 2nd February 1633/4. There came to us 3 Mallabarre Frigotts of 6 that had layen many dayes about the hole to have spoken with us. The Captaine of that Fleete came with his vessell aboard the *Mary*, where were all the English Commaunders, betwene whome there was a kinde of Contract made, That our shippes might goe for Batacala to lade Pepper, writeing to their Kinge or Naigue to that purpose. In the meane tyme they putt aboard of us 31 baggs of pepper, weighinge about 1cwt. each and wee gave him 1 small brass peece...³⁵²

Mundy names the leader of the delegation as one '*Babaraut, an arche pyratt*'.³⁵³ There is no mention, however, of the Company fleet subsequently stopping at Bhatkhal to follow up the invitation to trade. Following the signing of the treaty, Weddell sailed back to England carrying letters from Methwold to the Company's directors in London which made recommendations that two ships a year should sail direct to Goa with English goods and be loaded with Malabar pepper. They also advocated the benefits of a factor being stationed in Goa and even proposed that the chief English residency in India might be established there.³⁵⁴ In the event, neither of these recommendations were acted on. Had the latter proposal been followed and Surat abandoned for Goa, India's colonial history may well have been rewritten.

Less than two years after leaving India Weddell (and Mundy) returned - but this time at the head of a Courteen Association fleet. Their first port of call was Goa from where they sailed south on a reconnaissance of the Kanara coastline, eventually putting into port at Bhatkal. Here Mundy accompanied a delegation to the court of the Nayaka of Keladi,

³⁵² Temple 1914, 316; the 'small brass peece' was a piece of ordinance

³⁵³ Ibid.

³⁵⁴ Foster 1911, x

Veerabhadra Nayak, whereupon trade rights and the site for a factory were granted. The duplicity of the former Company employees is later made explicit in his journal entry,

...Battacala. This is the place I mentioned in the Forepart of this Journall, when wee mett with Babarautts Frigatts, From whome wee received some Pepper in exchange of a brasse gun...Captaine Weddell, then allsoe our Comaunder, wrote a lettre by him to the Naigue or King of the Country, advising him that hee would shortly come with shippes to his ports to settle a trade in his Country which is Now all ready in part performed.³⁵⁵

An angry letter written by the Portuguese Viceroy to the King of Spain further emphasises the controversy surrounding Weddell's mission. After trading at Goa, the Viceroy states that he had been led to believe the Courteen fleet would continue to Surat, *'I learnt later that these ships went to Canara to buy pepper; that the English offered a higher price for it than we give, that they sought out a Moorish Corsair, Babia by name, an enemy of the State and discussed their plans with him'*.³⁵⁶

Following the establishment of the factory, 'Babia' himself receives a colourful but less than glowing reference from Mundy, *'...hee entred in petty triumph with his Musicke, Drummes, Flagges, rich quitasoll and lusty Crew of good fellowes, very well armed... Hee is heare hated and Feared'*.³⁵⁷ Regardless of his popularity, Barbaraut's machinations with Weddell leading to the planting of the first Courteen factory is significant, evidencing the important role that a small number of key individuals - usually a cast of ambitious English and Indian collaborators - could play in influencing English commercial expansion in this period.

Turning from two case studies in which Anglo-Portuguese relations were important factors to one in which Anglo-Dutch rivalry had come to the fore, examination of the Company's acquisition of land in Attingal presents a complex interplay of personal, political and commercial motivations.

The rapid growth of Dutch power in south-west India from the early 1660s was gained, in terms of commerce, to the detriment of the English, Portuguese and in many cases the indigenous mercantile groups. Key to their success was the acquisition of Sri Lanka

³⁵⁵ Temple 1919, 72

³⁵⁶ Ibid., 67

³⁵⁷ Ibid., 101

followed by Cochin in 1663, both at the expense of the Portuguese. In return for their protection, the Raja of Cochin awarded a monopoly on pepper from the territory between Porakad and Cranganore.³⁵⁸ A series of treaties with Malabar rulers followed in which the Dutch sought to monopolise the export of pepper and import of opium and to exclude other Europeans from acquiring *cassia lignum* in an attempt to keep the price of Sri Lankan cinnamon high. As the Portuguese had found to their cost, attempts to monopolise the trade in these commodities was nigh on impossible; however the area south of Cochin was considered the most susceptible to Dutch demands.³⁵⁹ The English factories at Porakad and Old Kayal were both lost to the Dutch in 1665.

It was against this backdrop that the Queen of Attingal first wrote to the East India Company in 1678 offering overtures of friendship and trade.³⁶⁰ The following year a broker was sent from Calicut to negotiate with the Queen. The result, however, was not to the Company's satisfaction; they suspected that the Queen's fear of Dutch reprisals would oblige them to offer a show of arms in order to secure trade, something they were no doubt keen to avoid, the disruptions to trade caused by the Third Anglo-Dutch War (1672-74) being a recent memory.³⁶¹ Intermittent flirtation between the two parties nevertheless continued into the 1880s and the factories at Brinjaon and Retturah were eventually settled, later replaced by the fort at Anjengo in 1695. Whereas the official Company documentation surrounding these foundations concentrates on the potential for curtailing Dutch dominance in the region, an apocryphal account presented by Hamilton (1727) gives a more colourful reason for the growth of English influence - a love affair between the Queen and one of the Company factors sent to her territory.³⁶² This account is given credence in a number of published histories, including Keay (1993) who writes, '*She is said to have fallen in love with a 'beautiful' young English emissary who, although rejecting the chance of a royal wedding, 'satisfied her so well' that she could scarcely refuse countrymen anything.*'³⁶³

In the absence of contemporary corroboration of this story, more prosaic catalysts for the English presence are commonplace in the Company correspondence of the time - these repeatedly refer to the Dutch threat to the Attingal region. A letter written by the factors

³⁵⁸ Prakash 1998, 193

³⁵⁹ Arasaratnam 1994, 97-98

³⁶⁰ Fawcett 1954, 365

³⁶¹ *Ibid.*, 372

³⁶² Hamilton 1727, 322-23

³⁶³ Keay 1993, 252

Daniel Acworth and William Wildey from Retturah in May 1693 is typical, reporting that the Dutch had '*...conquered all along upon the coast except this Queenes dominions, which they alsoe threaten at and it's believed they will come with force of arms against the Queen of Attinga...*'³⁶⁴ Whilst such correspondences imply that the Dutch threat was felt equally by both the English and their hosts, the actual voice of the Queen is not heard in these documents. In fact, subsequent events suggest that whatever her opinion of the Dutch, by 1697 when the near-complete fort was besieged by the local *nairs*, it was the English who were perceived as the greater threat. More (2003) presents an account of this and subsequent animosity between the English and their hosts which eventually led to the massacre of the garrison in 1721.³⁶⁵

Whilst these three case studies ably serve to demonstrate that the establishment of English factories in south-west India was highly dependent on the favourable alignment of political, economic and opportunistic circumstances, deliberate Company policy did play a part in the process in certain instances. This is particularly evident in the late 1650s and early 1660s when the Company's fortunes were on the ascendancy following the granting of the new 'permanent joint stock' charter of 1657. During this period reconnaissance's of the Kanara and Malabar coast were made with the specific aim of scoping sites for new factories and in 1660 alone at least three such expeditions were made to ports including Quilon, Cochin and Porakad and Karwar. Factories, as we know, were subsequently settled at the latter two locations.³⁶⁶ This period of measured policy however, was short-lived; by the mid-1660s the emergence of the Dutch as the dominant European power in the Malabar ensured that the Company's placement, maintenance and withdrawal of factories became largely reactionary once more.

Temporal and spatial trends

So far this discussion has concentrated on the influence of the basic geographical, economic and geopolitical framework within which English affairs in south-west India were necessarily conducted and has identified some of the periods in which the Company (and Courteen Association) were best placed to take advantage of the various commercial opportunities that came their way. At this point there would seem to be some merit in examining the putative typology set out in the preceding chapters with the aim of

³⁶⁴ IOR/E/3/50:42

³⁶⁵ More 2003

³⁶⁶ Foster 1921, 299, 330-32, 343

identifying whether the development of factories in the Malabar and Kanara regions conformed to identifiable geographical and or temporal trends.

The first observation to emerge is a simple one; it is clear from the primary documentary sources presented in Chapter 4 that for the first two thirds of the 17th century the preferred factory type was the semi-fortified purpose-built factory house, attempted at locations such as Bhatkal, Old Kayal and Porakad and realised most effectively at Karwar and Calicut. Furthermore, it may be noted that of the twelve factory sites studied, this group were situated in the more urbanised locations. Certainly Calicut and Bhatkal were, historically-speaking, principal 'international' ports of the Malabar and Kanara coasts respectively,³⁶⁷ whereas Old Kayal and Karwar were also well-established regional ports, the former since the high medieval period, the later from the early 17th century.³⁶⁸ In this respect these factories should be viewed from an English perspective as exploiting the advantages offered by pre-existing infrastructure as set out by Chaudhuri (1978) above. Their specific sites however were allocated by the Indian authorities with a rationale for effectively monitoring imports and exports, gathering taxes and minimising the political (and probably religious) influence of their European guests. It is almost certainly no coincidence that Karwar and Bhatkal, the two purpose-built factory sites that have been located with precision, both lay on the periphery of the contemporary centres of the local administration, close enough to be kept in check but distant enough to prevent their meddling in local affairs.

The second, associated, observation is that the type of factory classified as 'hovels' or lightly built structures in the indigenous style, appear to have been used exclusively as fall backs when factors were prevented from occupying purpose-built factories. Thus we see the factors ensconced in a 'thatched hovel' for most of the Company's first decade at Karwar whilst the construction of their purpose-built factory suffered successive delays and set-backs. Similarly, the Calicut factors made use of a 'little Hovel' at Tanore following their ejection from Calicut in 1666. It is perhaps quite understandable that when possession of their favoured accommodation was not possible, the factors should be forced to use the most widely available alternative, in these cases indigenous buildings of the most basic order. It might also be assumed that indigenous structures were used at some of the other factory sites whilst more permanent structures were being constructed such as the fort site

³⁶⁷ Prakash 1998, 17-18

³⁶⁸ Foster 1921, 219; IOR/G/22

at Anjengo perhaps, though no explicit evidence has been found to support this hypothesis.

The alternative to using basic indigenous accommodation was to rent better-appointed accommodation of the type sometimes utilised in Calicut, an option most probably restricted to this, by far the most cosmopolitan of the Malabar port towns. As the region's predominant commercial, political and military power the Zamorin's regime was strong enough to manage interactions with foreigners on their own terms and as such Calicut had a long tradition of providing temporary accommodation to merchants from across the western Indian Ocean, for example the *pardesi* Muslims who controlled much of Calicut's trade with the Arabian ports and beyond.³⁶⁹ In this sense the English presence in Calicut might be seen as one of a number of temporary and semi-permanent populations of foreigners whose needs were better provided for than some of the less secure provincial towns and principalities strung along the south-west Indian littoral. Such an arrangement was more typical of the factories based in urban centres in the territories of the Mughals, most notably Surat.

The emergence of a fort-building tradition in the final third of the 17th century appears to have marked something of a departure from this shaky nexus of purpose-built/hovel/rented factories, at least as far as the Company's newly acquired sites were concerned. As set out in Chapter 6, for the last three decades of the 17th century all of the new factory sites developed were either forts (Baliapatam, Tellicherry and Anjengo) or sites intended for fortification but never realised (Retturah and Brinjaon). The growing predisposition in favour of forts at this time must be viewed partially as a response to the rise of Dutch power in the Malabar set against the relative weakness of most of the indigenous rulers. Anglo-Dutch commercial rivalry in the Malabar, which manifested itself as a scramble for exclusive trading rights, had been piqued by the Second and Third Anglo-Dutch wars of 1665-67 and 1672-74. Company correspondence from the later 17th century regarding the maintenance and planting of factories is nearly always couched in terms of countering Dutch expansion. Similarly, negotiations with indigenous elites were characterised by offers of alliance against the Dutch.³⁷⁰ The Dutch were rightfully perceived as a threat. Like the Portuguese before them they sought to monopolise the pepper trade through the implicit use of force and by disrupting the regional geopolitical balance through

³⁶⁹ Prakash 1998, 18

³⁷⁰ See, for example, IOR/E/3/50 for correspondence regarding the Company's factories at Brinjaon and Retturah

sponsorship of the city state of Cochin; Arasaratnam (1994) summarises, '*The pattern of Calicut-Cochin rivalry with the European power protecting Cochin was resumed with Dutch conquest...*'³⁷¹ The Dutch policy of effecting trade at the end of a musket barrel is sufficiently demonstrated by the composition of their staff in the Malabar in 1680; of 561 Europeans in the employ of the VOC, 423 were soldiers.³⁷² Comparative figures for the English at this time are not available, but the garrison of Anjengo some 40 years later in 1721 has been estimated at 150.³⁷³

Whilst commercial and sometime military rivalry with the Dutch may well have been the main reason for the fortification of the Company's factory sites, it would be naïve to accept that this was the Company's sole motivation. As already discussed, the later decades of the 17th century saw an increase in the importance of Malabar pepper to compensate for the loss of the Company's share in the Indonesian spice trade. At the same time, European demand for Indian textiles grew. The value of the Company's exports of both commodities grew accordingly and it is likely that properly fortified factories, as opposed to lightly fortified factory houses, were deemed necessary to protect this now vital trade from external interference, be it from a European rival or an indigenous ruler.

The predilection towards fort building in the later 17th century may also be considered in a proto-colonial light as it has been argued, with strong reason, that this period saw the beginnings of the Company's emergence as a colonial power.³⁷⁴ Bombay, England's first sovereign territory in India, had been ceded to the Company in 1668 following its acquisition by the Crown as part of the Portuguese Catherine of Braganza's marriage dowry in 1661. With no real mercantile or urban infrastructure, the Company's directors initially viewed the colony as a financial liability. However, by 1688, a year after the headquarters of the Company's western presidency had been transferred there from Surat, the fortified settlement was thriving, supporting a population of some 60,000.³⁷⁵ At round the same time, a new charter granted to the Company by James II in 1686 had contained a number of proto-colonial clauses, notably confirmation that the Company could use troops and ships against native princes who obstructed their trade.³⁷⁶ These measures were taken up with gusto by the Company's incumbent governor, Sir Josiah

³⁷¹ Arasaratnam 1994, 98

³⁷² Prakash 1998, 135

³⁷³ More 2003, 354

³⁷⁴ Keay 1991, 178

³⁷⁵ *Ibid.*, 134

³⁷⁶ *Ibid.*, 177

Child, an uncompromising advocate for the expansion of trade through territorial control. In the later 1680s, at Child's insistence, a small Company army attempted to force trading concessions with the Mughals in Bengal. The unmitigated disaster of what has become known as the 'Anglo-Mughal War' resulted in Bombay falling under siege, diplomatic humiliation and the eventual payment of a huge fine in order to restore the Company's trading rights in the Mughal dominions.³⁷⁷

Against this political backdrop it seems sensible to consider the Company's Malabar forts as, at the very least, symbols of their growing commercial and military strength. Setting aside the short-lived hybrid-fort at Baliapatam, the factories at Brinjaon and Retturah should be viewed as forerunners to the very strong fort built at Anjengo in the final few years of the century. At around the same time the defensive capability of the former French factory at Tellicherry was also substantially improved.

Tellingly, the first opponents to test the defences of these forts were not the Dutch, but forces of local *nairs* who attacked Anjengo in 1697 and 1721 and Tellicherry intermittently from 1703.³⁷⁸ More (2003) goes so far as to view the 1721 attack on Anjengo as an early manifestation of resistance to colonialism and even labels it a 'revolt'.³⁷⁹ This may be overplaying the significance of the incident, which appears to have been caused by underlying local resentment to the fort and catalysed by the bullish personality of its incumbent chief factor, William Gyfford.³⁸⁰ Having survived these assaults however, it is perhaps telling that Anjengo and Tellicherry became two of the Company's more significant Indian holdings, helping to protect British interests during the Mysore Wars of the later 18th century and subsequently secure British territorial control of the Malabar.

³⁷⁷ Robins 2006, 50

³⁷⁸ More 2003, 345; Hamilton 1727, 297-98

³⁷⁹ More 2003, 352

³⁸⁰ *Ibid.*, 345-353; Keay 1991, 252; Hamilton 1927; 322-23

CHAPTER 9: CONCLUSIONS

The following concluding comments cover the four principal elements of the study. First, the construction of the factory typology itself including the evidence used, the veracity of the ensuing model and its potential for use as an interpretive tool. Following on from this, the research aims are reviewed in light of the empirical evidence presented herein and its subsequent interpretation. The third element looks at the potential for furthering the study of 17th-century Anglo-Indian trade through archaeological investigation of the factory sites. Finally, the possibilities for developing this research are considered.

The factory typology

A basic typology comprising four categories of factory has been constructed using a range of documentary, physical and comparative evidence. The principal body of evidence is drawn from correspondence between the factors themselves and their employers at the presidential headquarters in Surat (later Bombay) and the governance of the East India Company in England. References to the physical and locative characteristics of the factories are for the most part disparate; therefore these documents have been supplemented with the accounts of visitors to the factories whose descriptions of the factories are often more cohesive and detailed. The documentary evidence has been supplemented where possible with cartographic and in a few instances, pictorial evidence.

As may be expected, the body of documentary evidence for the longer-lived factories tends to be larger than those that operated for only a few years. Similarly, the later factories, particularly those that survived beyond the end of the 17th century, tend to be better evidenced than those that were withdrawn. Conversely, most of the documentary evidence deriving from the later 17th century is less accessible as it has not been transcribed within the 'English Factories Series' and is poorly catalogued within the India Office Records. Further recourse to original correspondence from this period together with a review of evidence held in peripheral catalogues for all of the factories in question would not doubt improve the model.

The results of archaeological surveys at Bhatkal and Karwar have aided the construction of the typology and shed light upon the nature of the archaeological resource. Similar exercises at the other factory sites (where locatable) would remove the bias introduced by the geographic constraint imposed by this element of the study. Nevertheless, the

perspective afforded by the physical evidence has made a valuable contribution to the formation of the typology and its application as an interpretive tool. Much more could be achieved here.

Despite the inherent bias of the categories of evidence and the time and budgetary limitations under which the study has been completed, a typology of four factory types – purpose-built, temporary ‘hovel’, fort and rented house – has emerged. Whilst the evidence clearly demonstrates that the term ‘factory’ in the context of early Anglo-Indian trade was a generic label applied to the premises used by the Company for furtherance of trade, regardless of architectural form, the construction of a typology presents a useful framework for factory foundation, maintenance and withdrawal to be studied.

Within each of the type sets, there are factories which emerge as clear exemplars of their type whereas others have been assigned on comparatively light bodies of evidence. Nevertheless, there is every indication that further research would tighten this typology, perhaps around sub-sets within the proposed categories, rather than effect major revision.

The value of this approach as an interpretive tool is demonstrated by comparing the chronological and temporal distribution of the four types is against shifts in the contemporary political and economic landscape, as set out in the previous chapter and summarised in Table 5. Thus a pattern based upon the preference for lightly-fortified purpose-built factories for the first three quarters of 17th century moving towards full-blown fortifications for the final decades emerges. Where this development was interrupted either by reversals in fortune or at the behest of the ruling elite, temporary ‘hovels’ or rented premises might be used. All were viewed a factories in the eyes of those engaged in the trade.

Review of Research Aims

In Chapter 1 a series of research questions were proposed that it was hoped might be addressed through the construction and interrogation of a factory typology. These questions can now be considered in light of the preceding chapters.

- What were the physical characteristics of a factory in the context of early Anglo-Indian trade and to what degree can factories be assigned types on the basis of these characteristics?

Evidence for the physical characteristics of the factories varies considerably from site to site. For some (including Karwar, Calicut, Tanore, Tellicherry and Anjengo) a very clear picture emerges and these have been used to establish a basic typology. Other factories benefit from enough evidence to allow their allocation to a type to be undertaken with confidence (Bhatkal, Baliapatam, Brinjaon). A third category exist for whose precise physical form remains speculative and their allocation to type is less secure (Cranganore, Old Kayal, Porakad, Retturah). See Chapters 3-7.

- Assuming types can be assigned to individual factories, were they static assignments or did circumstance affect movement between types?

Here the evidence is clear; the type of premises used at individual factory sites was sometimes subject to change. Thus we see the Company use a mixture of temporary 'hovel' and purpose-built factories at Karwar and rented and purpose-built premises at Calicut. Further it is speculated that some of the other factory sites may have originally utilised either 'hovels' or rented premises whilst purpose-built factories and forts were constructed. See Chapters 4, 5 & 7.

- How were factory sites obtained by the English and what were the principal factors that influenced their setting?

The evidence demonstrates that the factory sites were always obtained through the patronage of the local elite, though the means by which this patronage was won could be dependent on complex circumstances which are discussed in Chapter 8. The settings of factories were partially dictated by their function as storage facilities for acquired goods - therefore the juxtaposition of proximity to centres of production and coastal shipping routes was key. Inland waterways were the preferred means of transporting goods to the coast and therefore riverine locations were favoured. A second tier of issues affecting setting is introduced by the host authorities who allocated the specific sites for the English factories. Further research from an Indian perspective would no doubt greatly expand our understanding of this issue. See Chapters 4-8.

- Why did certain factory sites survive into the 18th century whereas others were withdrawn?

This is a complex issue, both site specific but also subject to more generalised political circumstances and economic trends. Withdrawn factories were often those which suffered

loss of local patronage and loss of trade through Dutch commercial and/or military aggression. Those that survived were generally the forts. See Chapter 8.

- How was factory-based trade organised and how did factories operate within the dynamics of local, regional and international commerce?

This is a question only partially addressed by the construction of the typology, or more accurately that discussion that follows on from it. The importance of riverine, coastal and urban settings are of relevance here, as are interactions with centres of production and inland markets via native intermediaries or brokers. See Chapter 8.

- Is archaeological investigation of the factory sites possible and if so, what might it contribute to our understanding of Anglo-Indian and intra-Asian trade in the 17th century?

The fieldwork undertaken as part of this study has demonstrated the contribution that archaeological investigation might make. See Chapter 4, Appendix 1 and below.

Assessment of Archaeological Potential

The potential contribution that archaeological investigation might make to the study of 17th-century pre/proto-colonial sites has been ably demonstrated by the non-Indian comparative studies (Chapter 2). Investigation of the factory sites themselves poses a number of intrinsic problems, not least the issue of accurately pin-pointing the locations of some of the sites on the ground. Conversely, where factory sites are preserved and maintained as historic monuments, as is the case at Tellicherry and Anjengo, issues of tightly regulated access rise to the fore. For this reason, the sites with the best archaeological potential in practical terms are those whose locations can be reconstructed from documentary and cartographic evidence, then corroborated on the ground through archaeological survey. Where these sites fall within lightly developed areas, theoretical potential for intrusive works might then be considered.

Two such sites are those of the factories at Karwar and Bhatkal, both of which were visited as part of this study (see Appendix 1). The probable absence of upstanding factory structures at both sites was tested by walkover survey and combined with a broader appraisal of the topographic and historic landscape features in the vicinity to corroborate documentary evidence for their settings.

At both sites, multi-period structural remains were observed, some clearly representing historic building fabric of reasonable antiquity. However, on the basis of visual inspection alone, the only features that could be unequivocally attributed to the English factories were the three factor's graves at Bhatkal. The designation of the graves as Monuments of National Importance and subsequent regulation of development in their vicinity has been the subject of some controversy and has resulted in the majority of the ground around them being left open.³⁸¹ This open aspect has probably resulted, in part, from the reported levelling and clearance of the immediate area around the graves during their recent restoration.³⁸² The archaeological potential of this part of the site has probably been reduced accordingly.

The site of the factory at Karwar, which has no formal designation, presents a different set of constraints to archaeological investigation. Whilst it lacks definitive upstanding evidence for the factory, a number of sections of semi-ruined wall and a series of denuded wall foundations were observed in various locations in and around the postulated factory compound demonstrating considerable potential for archaeological survival of contemporary features. Scatters of pottery and ceramic building material were observed in the vicinity of these remains and were present in a number of locations across the entire site, with noteworthy concentrations observed in a series of inter-joining domestic yards in the northern part of the postulated factory compound, an open yard to the west of the church and the scrubland to the north of the church. It is, perhaps, no coincidence that these three areas were the most open and easily accessible of the village plots. It is assumed that further denuded wall foundations and pottery scatters are present across the site, but are currently obscured by vegetation or lie within enclosed private property. Perhaps two thirds of the compound's area falls into this category, being divided between fenced and walled-off cultivated plots attached to the village houses and areas of heavily overgrown impenetrable scrubland. Palm trees are also prevalent throughout the compound area, with particular dense groves located at its centre where the factory house itself might be expected to have been located.

Where scatters of pottery could be examined, sherds were dominated by locally-produced coarse earthenwares. Whilst some sherds are probably of comparatively modern date, others were very abraded and appeared of greater antiquity. Sherds in other fabrics were noted in only very small quantities. These included a heavily abraded body sherd in a hard

³⁸¹ <http://www.sahilonline.org/english/newsDetails.php?cid=7&nid=11336>, accessed 21.10.13

³⁸² ASI 2005, 30

pale grey fabric similar to stoneware, but with a fine shell and chaff temper. It had a smooth outer surface and a heavily sooted, finely rilled inner surface. Glazed wares were uncommon, but included a sherd of English plain-glazed earthenware dating to the 18th or 19th century.³⁸³

At both sites a combination of truncation through modern development, issues pertaining to accessing privately owned land and dense vegetation cover (more so in the case of Karwar) proved detrimental to the detection of potential archaeological features. Furthermore, at Bhatkal, the more open of the two sites, the protection afforded to the graves by the Archaeological Survey of India and consequent restriction on land for development is a matter of some controversy and makes free movement across the wider site problematic. Nevertheless, the field surveys suggest that fragmentary upstanding remnants of the factories may survive, with almost certain potential for buried archaeological remains replete with artefact assemblages.

Should appropriate permissions be gained, and with the support of the local residents, limited programmes of fieldwork could be undertaken at either site with the aim of corroborating the documentary, cartographic and historic landscape evidence for the factories. This could involve geophysical survey (resistivity) and systematic surface artefact collection (field walking) focussing on open plots, test pit evaluation and even limited excavation of the foundations of visible ruinous structures.

The basic fieldwork undertaken at the Kanara factories has therefore enabled their archaeological potential to be assessed and similar scoping exercises undertaken at the locatable Malabar sites would no doubt enable this assessment to be developed. In theory, this could most easily be achieved at the maintained fort sites of Tellicherry and Anjengo. The site of the fort at Baliapatam could also be located on the ground with little difficulty owing to the very good topographical descriptions given in contemporary accounts. The site of the final factory at Calicut might be located through enquiry. The remaining factory sites, however, would present greater difficulty unless more specific locative evidence emerged from further documentary evidence.

³⁸³ Many thanks to Iain Soden (IS Heritage) and Ran Zhang (Durham University) for offering comment on the pottery

Future research

In identifying the shortcomings of the present study, a number of immediate opportunities for future research present themselves. In the first instance the factory typology might be tightened and/or refined through further documentary research focussing on additional catalogues of material held in the India Office Records of the British Library. To complement this documentary work, walkover, photographic and historic landscape surveys of the Malabar factory sites is recommended in order to complete the study. Thus informed, a typology of factories based on the examples from south-west India might be expanded to other regions and tested against the prevailing political and economic developments. Such work might include the assembly of an expanded tabulated concordance of factory types and key events as presented in Table 5 - potentially a valuable interpretive tool for comparing the stimuli for factory development across India.

Moving beyond the physical characteristics of the factories and their settings, a detailed study of early Anglo-Indian trade could be undertaken through a systematic appraisal of company correspondence and other documents such as ships logs and inventories. This would allow temporal and geographical variations to be observed and related to wider commercial trends. Similarly, domestic life at the factories could be studied by approaching the same data sets from a different angle. In both cases, the introduction of assemblages of material culture obtained through archaeological investigation might test and therefore greatly enhance the available documentary evidence. In this light a historical archaeology approach to early Anglo-Indian trade could make a real contribution to wider issues such as the transformation of global trade and the emergence of colonialism.

APPENDIX 1: FIELDWORK REPORT

ARCHAEOLOGICAL WALKOVER SURVEY OF TWO 17TH CENTURY ENGLISH FACTORY SITES IN UTTARA KANNADA, KARNATAKA, INDIA

By Paul Mason (University of Durham)

Introduction

Background

In November 2013 walkover and photographic surveys were undertaken at the sites of two 17th-century English factories located near the towns of Karwar and Bhatkal in Uttara Kannada, Karnataka, India (Figure 1). The work was undertaken in support of the author's MA by Research (Durham University) and was funded by grants awarded by the Indian National Trust for Cultural Heritage (INTACH) and the Society for Post-Medieval Archaeology (SPMA). In addition to the factory sites, visits were made to the early 18th-century fort at Sadashivgad, Karwar and the sites of the former dynastic capitals of the Keladi Empire at Keladi and Ikkeri, Shimoga District, Karnataka.

Aims and Objectives

The principal objectives of the fieldwork was to corroborate documentary and cartographic evidence for the location of the factories and to undertake landscape study to aid a greater understanding of their setting in relation to contemporary natural resources, lines of communication and nearby centres of occupation.

The specific aims of the fieldwork were:

- To identify any surviving elements of historic settlement morphology and building fabric
- To make a rapid, in situ, assessment of surface artefact spreads to identify origin, form and function
- To assess the potential for undertaking further archaeological work at the sites



Figure 1: Locations of Bhatkal and Karwar

Karwar Factory Site

Site Location

Karwar occupies a wide bay in the very northern part of Karnataka's Uttara Kannada District, close to the mouth of the Kali River (or Kalinadi) which separates the town from the village of Sadashivgad (Plate 1).

Documentary and cartographic sources place the site of the East India Company factory in the village of Sunkeri which lies c.4.6km north-east of the centre of the Karwar. Sunkeri occupies low-lying ground on the southern bank of a channel that connects a large lagoon to the Kali River, c. 3.25km from its mouth (Plate 2). It is set amid dense palm groves, with water meadows and paddy fields lying to the south and east.

The factory site, which documentary sources describe as being set within a large compound, lies on the eastern edge of the village, to the immediate south of the recently re-built Church of Our Lady of Immaculate Conception (originally founded 1709). Here the village house plots, field boundaries and the road pattern respect a distinct square parcel of land which, it is postulated, represents the compound, fossilised in the modern landscape (Plate 3). A number of English-speaking villagers were able to corroborate that this part of Sunkeri was indeed the site of the English factory, one even reported that his children had learned this at the local school.

Beyond the factory compound, to the east of Sunkeri, a footbridge spans the 0.6km-wide expanse of open lagoon, over which lies the village of Kadwad (Plate 3). This was once the principal settlement of the area and seat of the local governor when the English factory was founded; it was eventually supplanted by the 'new town' of Karwar in the 19th century. A number of historic documents allude to Kadwad as being the site of an East India Company factory for a time,³⁸⁴ most likely intermittently in the 1660's prior to the re-occupation of the former Courteen Association factory site in Sunkeri.

Walkover Survey Results

The factory compound

A sinuous road runs through the northern part of Sunkeri on a meandering east to west alignment, loosely following, at a distance, the southern bank of the Kali and the channel that connects with the lagoon. As it approaches the eastern part of the village, it turns suddenly southward (Plate 4a) and straightens before making a sharp right-angled turn to the east and straightening again (Plate 4b). To the north, on a parallel alignment, is Church Road (Plate 4c), a metalled track giving access to the church, which runs east to west then angles to the south providing access to village houses. To the east of this track, the village building plots terminate along a well-established heavily overgrown north-south boundary that divides the settlement from the agricultural land beyond (Plate 4d). Together, these four linear boundaries define the postulated site of the factory compound at its largest extent, which encloses an area of c.5ha.

Modern land use within the enclosed area falls into five broad categories: 1) domestic plots; 2) community facilities, including temples and a school; 3) small cultivated plots; 4) stands of palm trees; and 5) areas of heavily overgrown scrubland.

³⁸⁴ Fawcett 1954, 360

Domestic plots within the compound present their frontages to the enclosing road system and also line Church Road where it cuts through the eastern part of the compound (Plate 4e). Many of the village houses are bungalows of relatively recent date, and a number of others are still being built. Stacks of laterite blocks for their construction, quarried from nearby Ankona (according to one local informant), are a common site in the village.

In the south-eastern part of the postulated compound, some of the houses appear of an older vernacular style to the others, built in two stories with wide gabled roofs. The road hereabouts swerves sharply to the north to avoid the most easterly of these structures which, on the basis that its southern boundary aligns with the strong east-west alignment respected by the roadside plots to the west, would appear to occupy a position corresponding with the south-east corner of the postulated compound (Plate 4f).

Within the compound itself, a scatter of houses with yards and gardens occupy the northern part of its interior and are reached via either a small track which joins the 'main' road to the west or a footpath which provides access to the northern arm of Church Road next to the school. Here the footpath passes through a narrow aperture in a low, denuded wall (Figure 4; Plate 4g). Whereas the wall either side of the path has been rebuilt and is securely bonded with mortar, to the west it consists of crudely dressed, unbonded blocks of granite laid in irregular courses reminiscent of a dry stone wall. A short distance to the west, a possible southerly return of this wall is preserved as a low linear mound capped with granite rubble. Walls of similar construction were absent from the rest of the village, but were noted at the fort of Sadashivgad. Scatters of abraded pottery were noted across the yard area adjacent to these walls.

Nirmal Rani High School presents its frontage to Church Road, opposite the church itself (Plate 4h). It is an English Medium School run by an order of Nuns, the Sisters of St Charles Borromeo but was closed for the Deepawali holidays at the time of the survey. A small convent lies adjacent to the school.

Two Hindu temples, one little more than a shrine, present frontages to the road defining the western side of the compound (Plate 5a). Another simple shrine is located under a large banyan tree on the eastern arm of Church Road. A number of chamfered granite blocks, resembling coping stones have been placed around the base of the tree trunk.

The remainder of the compound's area is divided between small cultivated plots and heavily overgrown scrubland, largely inaccessible and occasionally clearly obscuring

underlying man-made features (Plate 5b). Palm trees are prevalent throughout the compound area, but are particularly dense in its centre.

The only 'open' expanses of land within the compound are the cultivated plots and the 'maintained' yards and tracks associated with the houses, school and temples. Here the ground surface comprises a compact reddish brown sandy clay, more often than not covered by a low tangle of grass and weed. Scatters of heavily abraded pottery are common in these open areas (see below).

The churchyard

To the immediate north of the postulated factory enclosure, on the bank of the lagoon channel, is the Church of Our Lady of Immaculate Conception and its churchyard (Plate 5c). The existing church comprises a white washed octagonal nave which was built in the 1990s to replace the previous church (consecrated 1803) that had fallen into a state of disrepair. However, the first church to be built on the site was constructed almost a century earlier on land granted to Carmelite missionaries by the East India Company. Records held by the General of the Carmelite Order in Rome, state that in 1709 the English gave 'a place in their own grounds' for its construction,³⁸⁵ an assertion corroborated by records held by the church itself.³⁸⁶

Although the modern church is smaller than its immediate predecessor,³⁸⁷ nothing of the earlier structure remains to be seen above ground other than a well lying to the immediate north-west of the church in an overgrown corner of the churchyard. It is built of granite blocks in the local style, with a monolithic lintel decorated with a simple incised crucifix (Plate 5d).

The lagoon channel lies only 60m north of the modern church and is reached by small footpath leading through a stand of palms interspersed with thick foliage. At the water's edge a heavily worn, tiered laterite revetment is built into the bank, the estuarine silt at its base is strewn with ceramic building material, presumably deriving from the demolition of the early 19th-century church (Plate 5e). The bank hereabouts presents an open aspect to the 150m-wide channel and its confluence with the Kali River, some 900m to the west (Plate 5f); this juxtaposition of topographical features offers comparison with both the

³⁸⁵ Silva 1957, 82

³⁸⁶ Pinto 1993, 19

³⁸⁷ Father Anthony D'Souza, pers comm

factory location as depicted on an anonymous survey of 1680³⁸⁸ and the position of a moored East Indiaman depicted in Barlow's sketch of 1670.³⁸⁹

Adjoining the churchyard to the west is a dusty, open plot of ground that probably serves as the playground for the nearby school. A section of heavily denuded laterite wall foundation is aligned north to south towards the western site of the plot (Plate 5g). The area is scattered with a large quantity of abraded pottery (see below). To the immediate north-west, a small well is present in an area of thick undergrowth. Its form is markedly dissimilar to the well in the churchyard, being of perhaps half the diameter and constructed using unbonded blocks of laterite in a style that appears of greater antiquity (Plate 5h).

The pottery

Scatters of pottery and ceramic building material were observed in a number of locations across the site, with noteworthy concentrations observed in the yards in the northern part of the enclosure, the yard to the west of the church and the scrubland to the north of the church. It is perhaps no coincidence that these three areas were the most open and easily accessible of the village plots and it is assumed that further scatters are present across the site, currently obscured by vegetation or lie within private property.

The sherds were dominated by coarse earthenwares in dull orange brown to dark red sandy fabrics with inclusions of either quartz and grit or grog. It is assumed that much of this material is locally produced, and may derive in part from the village houses themselves. Whilst some sherds are probably of comparatively modern date, others were very abraded and appeared of greater antiquity.

Sherds in other fabrics were noted in only very small quantities. These included a heavily abraded body sherd in a hard pale grey fabric, but with a fine shell and chaff temper. It had a smooth outer surface and a heavily sooted, finely rilled inner surface but is perhaps too coarse to be anything other than a locally produced coarseware. Glazed wares were uncommon, but included a small base sherd from a plate or dish in a highly fired white

³⁸⁸ British Library, Add MS 15737.22. Foster (1914) argues that the chart was actually surveyed in the late 1640s and therefore depicts the Courteen Association factory rather the East India Company's. See Foster 1914b

³⁸⁹ Reproduced in Lubbock 1934, 194

fabric with an off-white enamel glaze. This is probably a sherd of English plain-glazed earthenware dating to the 18th or 19th century.³⁹⁰

Bhatkal Factory Site

Site location

Bhatkal lies some 105km south of Karwar at the southern extreme of Uttara Kannada District. The town is situated inland, on the northern bank of the meandering channel of the Chowtani River; the town's port is located on the river's mouth some 3km to the west.

Roughly 1km west of the historic core of Bhatkal in the village of Dongarpalli, the graves of three English factors are maintained as historic monuments by the Archaeological Survey of India. The site is located on the sloping northern bank of the river, 2.5km upstream from the port.

Following negotiations with the representatives of the Courteen Association early in 1637, the Ikkeri Raja wrote to the Governor of Bhatkal instructing him to provide the English with materials and labour to build their factory together with a burial ground for their dead.³⁹¹ It is therefore assumed that the graves lie on or very close to the site of the factory.

Walkover Survey Results

The graves occupy a prominent position in the village, on a natural terrace overlooking the river (Plate 6a & b). A low wall encloses the grave monuments (replacing an earlier wall, now a denuded foundation). The monuments themselves appear to be later additions but they are capped with the original grave slabs which are inscribed with the biographical details of the incumbents. These are named as; Anthony Verneworthy, Merchant (d. 1st April 1637), George Wye, Merchant (d. 31 March 1637), William Barton, Surgeon (d. 30 November 1638) (Plate 6c & d). Peter Mundy, who was with the Association embassy to Ikkeri, identifies Anthony Verneworthy as the principal factor and George Wye as the purser; he also mentions a surgeon, but not by name.³⁹²

³⁹⁰ Many thanks to Iain Soden (IS Heritage) and Ran Zhang (Durham University) for offering comment on the pottery

³⁹¹ Temple 1919, 92

³⁹² Temple 1919, 95. Verneworthy was commissioned on 16th March 1637 and was dead little more than two weeks later – a testament to the prevalent high mortality rates among Association and Company staff at this time.

The designation of the graves as Monuments of National Importance and subsequent regulation of development in their vicinity has been the subject of some controversy³⁹³ and has resulted in the majority of the ground around them being left open, albeit covered in tall grass which grows in a thin sandy soil. The ASI publication, *Indian Archaeology - A Review* (1999-2000) mentions restoration works to the upstanding grave monuments and the levelling of the area around them.³⁹⁴ There is no mention of whether remains of the factory itself were revealed (and destroyed) by these works.

The only modern structure to infringe on the exclusion zone around the graves is a long single storied building which lies to the immediate north-east (Plate 6e). It's built in the local vernacular style and is of no great antiquity; however, it occupies one side of an overgrown plot of land defined by a much older partially ruined wall of laterite blocks (Plate 6e). The village mosque is located on the opposing side of this plot.

The only other evidence for historic fabric in the vicinity of the graves lies a short distance to the west where part of a laterite platform can be seen cloaked in grass adjacent to a modern house (Plate 6f).

Pottery and other cultural material was not observed in the vicinity of the graves; perhaps not surprising given the nature of the ASI clearance works.

Conclusions

Whilst the field surveys enabled an assessment of the topography and historic landscape features in the vicinity of the two factory sites to be made, structural remains relating unequivocally to the factories themselves were not present at either site. At both sites, multi-period structural remains were observed, some clearly representing historic building fabric. None of these, however, could be positively attributed to the English factories on the basis of visual inspection alone.

At Karwar, material culture in the form of pottery was present in large quantities but was dominated by non-diagnostic earthenwares whose provenance and date of manufacture would be difficult to prove without further specialist analysis. Most are probably local wares and span a broad range of dates. Diagnostic fabrics were scarce and of the few examples noted, neither appeared to be of 17th-century European origin.

³⁹³ <http://www.sahilonline.org/english/newsDetails.php?cid=7&nid=11336>, accessed 21.10.13

³⁹⁴ ASI 2005, 30.

At both sites a combination of truncation through modern development, issues pertaining to accessing privately owned land and dense vegetation cover proved detrimental to the detection of potential archaeological features. Furthermore, at Bhatkal, the more open of the two sites, the attitude of the local people towards the ASI protection of the monument also makes unrestricted movement across the site problematic. Nevertheless, the field surveys have proven that fragmentary upstanding remnants of the factories and their buried archaeological remains cannot be ruled out at either site.

Should appropriate permissions be gained, and with the support of the local residents, limited programmes of fieldwork could be undertaken at both sites with the aim of corroborating the documentary, cartographic and historic landscape evidence for the factories. This could involve geophysical survey (resistivity) and systematic surface artefact collection (field walking) focussing on open plots, test pit evaluation and even limited excavation of the foundations of visible ruinous structures.



Plate 1: The Bay of Karwar from Sadashivgad, looking south across the mouth of the Kali River



Plate 2: The factory site at Sunkeri, looking north-west from the footbridge to Kadwad



Plate 3: Kadwad, looking south-east from the footbridge



Plate 4a: Road, west side of compound, looking south



Plate 4b: Road, south side of compound, looking east



Plate 4c: Church Road, north side of compound, looking west



Plate 4d: Eastern perimeter of compound, looking north-west



Plate 4e: Interior of compound, looking north from southern end of Church Road



Plate 4f: Village house occupying south-east corner of compound, looking south



Plate 4g: Interior of compound, looking south from footpath to west of school, wall section to foreground



Plate 4h: Village school (background), looking south-east from possible schoolyard.



Plate 5a: Temple, west side of compound, looking east



Plate 5b: Overgrowth, interior of compound, looking north-east



Plate 5c: Our Lady of the Immaculate Conception Church and Churchyard, looking north-east



Plate 5d: Well in churchyard, looking north-west



Plate 5e: Laterite revetment of channel bank north of church



Plate 5f: The open channel north of the church, looking north-west towards the the Kali River



Plate 5g: Robbed laterite wall footing in school yard (?) west of church, looking south



Plate 5h: Early (?) well to west of churchyard



Plate 6a: The Bhatkal factory site at Dongarpalli, looking south



Plate 6b: The Bhatkal river from the factory site, looking east



Plate 6c: The English graves, looking north



Plate 6d: Detail of Verneworthy's grave



Plate 6e: Partly ruined laterite wall, Dongarpalli village, looking north-east



Plate 6f: Laterite platform, Dongarpalli village, looking south

BIBLIOGRAPHY

Manuscript Sources

British Library Online Gallery, 'Tellicherry on the Coast of Malabar' by James Forbes, accessed online: <http://www.bl.uk/onlinegallery/onlineex/apac/other/largeimage69553.html>

British Library Online Gallery, 'Calicut on the Coast of Malabar' by James Forbes, accessed online: <http://www.bl.uk/onlinegallery/onlineex/apac/other/019xzz0000455c7u00033000.html>

British Library Online Gallery, 'A ruined bungalow, perhaps part of the old East India Company's factory, at Jellasore, Balasore district (Orissa)' by Shaikh Abdullah, accessed online: <http://www.bl.uk/onlinegallery/onlineex/apac/other/019wdz000000677u00000000.html>

IOR/G/1, Factory Records: Anjengo

IOR/G/3, Factory Records: Bombay

IOR/G/22, Factory Records: Karwar

IOR/G/22/1, Factory Records: Karwar, Diary entry of 5th July 1717

IOR/G/22/1, Factory Records: Karwar, Letter of 20th December 1717

IOR/G/22/1, Factory Records: Karwar, Letter of 20th December 1717

IOR/G/36, Factory Records: Surat

IOR/G/37, Factory Records: Tellicherry

IOR/E/3, Original Correspondence

IOR/E/3/16:234-35, Original Correspondence, Letter of 26th January 1639

IOR/E/3/50:36, Original Correspondence, Letter of 31st May 1693

IOR/E/3/50:42, Original Correspondence, Letter of December 1692

IOR/E/3/50:115, Original Correspondence, Letter of 25th July 1693

IOR/E/3/50:118-121, Original Correspondence, Letter of 27th July 1693

IOR/E/3/50:223, Original Correspondence, Translation of *O/a* dated 29th June 1694

IOR/E/3/50:224, Original Correspondence, Letter of 29th June 1694

IOR/E/3/51:88-95, Original Correspondence, Letter of 29th June 1695

IOR/E/4, Original Correspondence

IOR/L/MAR, Marine Department Records

IOR/X, India Office map Collection

IOR/X/2773/1-2, India Office Map Collection, 'A Sketch of the General Traverse of Soanda, 1817'

Map Coll: Maps SEC.12 (802.PL.2), Map Collection, 'Mount Formosa...and Carwar by T.C Templar, c.1780'

Map Coll: Maps SEC.XII. (242), Map Collection 'Sedashigur Bay and River surveyed by Lieutenant A D Taylor and M A Sweeny, 1855'

Western Manuscripts, Additional MS.15,737, f.22, 'A Chart of the Bay of Carwar 1680'

Royal Museums Greenwich Picture Library, 'Plate from Edward Barlow's journal of his life at sea in king's ships, East & West Indiamen & other merchantmen from 1659 to 1703', accessed online:

http://images.rmg.co.uk/en/search/do_quick_search.html?q=edward+barlow

Royal Museums Greenwich Picture Library, 'View of Calicut (Calcutta, India)', accessed online: http://images.rmg.co.uk/en/search/do_quick_search.html?q=edward+barlow

Contemporary Printed Primary Sources

Darrell, J, 1652, *Strange News from th' Indies: OR, East-India Passages further discovered*, London

Davies, J, 1669, *The Voyages and Travels of J Albert de Mandelslo (a Gentleman belonging to the Embassy, sent by the Duke of Holstein to the great Duke of Muscovy, and the King of Persia) into the EAST-INDIES*, London, Second Edition

Dellon, G, (trans. Jodocus Crull) 1698, *A Voyage to the East Indies*, London

Fryer, J, 1698, *A New Account of East-India and Persia*, London

Hamilton, A, 1727, *A New Account of the East Indies*

Herbert, T, 1638, *Some Years Travels into Divers Parts of African and Asia the Great*, London

Ovington, J, 1696, *A Voyage to Surat in the Year 1689*

Purchas, S, 1625, *Purchas His Pilgrims*, London

Thévenot, Jean de, (trans Lovell, A) 1687, *The Travels of Monsieur De Thevenot, The Third Part: Indostan*

Valle, P Della, 1665, *The Travels of Sig. Pietro Della Valle, a noble Roman, into East India and Arabia Deserta*, London

Subsequently Printed Primary Sources

Archaeological Survey of India 1959, *Indian Archaeology 1958-59 - A Review*, New Delhi

Archaeological Survey of India 1983, *Indian Archaeology 1979-80 - A Review*, New Delhi

Archaeological Survey of India 1992, *Indian Archaeology 1986-87 - A Review*, New Delhi

Archaeological Survey of India 2005, *Indian Archaeology 1999-2000 - A Review*, New Delhi

Brayley, Brewer and Nightingale, 1814, *A topographical and historical description of London and Middlesex, Vol II*, London

Danvers, F C, 1896, *Letters received by the East India Company from its servants in the East, Vol 1, 1602-1613*, London

Fawcett, C G H, 1936, *The English Factories India, Vol I (New Series) (The Western Presidency) 1670-1677*, Oxford

Fawcett, C G H, 1954, *The English Factories in India, Vol 3 (New Series) (Bombay, Surat and Malabar Coast) 1678-1684*, Oxford

Fawcett, C, and Burn, R, 1947-8, *The Travels of the Abbe Carre in India and the Near East, Vols 1-3, 1672 to 1674*, Hakluyt Society

Forbes, J, 1834, *Oriental Memoires: A Narrative of Seventeen Years Residence in India*, Volume 1 (Second Edition), London

Foster, W, 1897, *Letters received by the East India Company from its servants in the East, Vol II, 1613-1615*, London

Foster, W, 1899, *Letters received by the East India Company from its servants in the East, Vol III, 1615*, London

Foster, W, 1900, *Letters received by the East India Company from its servants in the East, Vol IV, 1616*, London

Foster, W, 1901, *Letters received by the East India Company from its servants in the East, Vol V, 1617 (January to June)*, London

Foster, W, 1901, *Letters received by the East India Company from its servants in the East, Vol VI, 1617 (July to December)*, London

Foster, W, 1906, *The English Factories in India 1618-1621*, Oxford

Foster, W, 1908, *The English Factories in India 1622-1623*, Oxford

Foster, W, 1909, *The English Factories in India 1624-1629*, Oxford

Foster, W, 1910, *The English Factories in India 1630-1633*, Oxford

Foster, W, 1911, *The English Factories in India 1634-1636*, Oxford

Foster, W, 1912, *The English Factories in India 1637-1641*, Oxford

Foster, W, 1913, *The English Factories in India 1642-1645*, Oxford

Foster, W, 1914a, *The English Factories in India 1646-1650*, Oxford

Foster, W, 1915, *The English Factories in India 1651-1654*, Oxford

Foster, W, 1921, *The English Factories in India 1655-1660*, Oxford

Foster, W, 1923, *The English Factories in India 1661-1664*, Oxford

Foster, W, 1925, *The English Factories in India 1665-1667*, Oxford

Foster, W, 1927, *The English Factories in India 1668-1669*, Oxford

Lubbock, B, (ed), 1934, *Barlow's Journal of his Life at Sea in King's Ships, East and West Indiamen, and other Merchantmen from 1659-1703*, London

Temple, Sir R C (ed), 1907, *The Travels of Peter Mundy in Europe and Asia, 1608-1667*, Cambridge

Secondary sources

Anderson, P, 1856, *The English in Western India*

Arasaratnam, S, 1994, *Maritime India in the Seventeenth Century*, OUP

Barrass, S, 2011, 'An Introduction to Artillery Fortification', *Fortlet*, No. 1

Biddulph, J, 1917, *Pirates of Malabar*

Blusse, L, and Gaastra, F, 1981, *Companies and Trade*

Brujin J R, and Gaastra, F S, 1993, *Ships, Sailors and Spices: East India Companies and their Shipping in the Sixteenth, Seventeenth and Eighteenth Centuries*, Amsterdam

Chakrabarti D K, 2003a, *Archaeology in the Third World: A History of Indian Archaeology since 1947*, New Delhi

Chakrabarti, D K, 2003b, *The Archaeology of the European Expansion in India, Gujarat c. 16th-18th centuries*

Chaudhuri, K N, 1969, 'Towards an 'Intercontinental Model': Some Trends in Indo-European Trade in the Seventeenth Century', *Indian Economic Social History Review*, 6, 1-29

Chaudhuri, K N, 1978, *The Trading World of Asia and the English East India Company 1660-1770*

Chaudhuri, K N, 1985, *Trade and Civilisation in the Indian Ocean: An Economic History from the rise of Islam to 1750*

Chaudhury, S and Morineau, M 1999, *Merchants, Companies and Trade*, Cambridge University Press

Douglas, T, 1893, *Bombay and Western India*

- Floore, P M, and Jayasena, R M, 2010, 'In want of everything? Archaeological perceptions of a Dutch outstation on Mauritius (1638-1710)', *Post-Medieval Archaeology* 44/2, 320-340
- Fortenberry, B and Brown III, M, 2011, 'Bermuda's archaeology in context', *Post-Medieval Archaeology* 45/1, 1-6
- Foster, W, 1914b, 'A Seventeenth-Century Cartographer', *The Geographical Journal*, 44:1, 78-82
- Gaastra, F S, and Bruijin, J R, 1993, 'The Dutch East India Company's Shipping, 1602-1795, a comparative perspective' in Bruijin and Gaastra, 1993, 177-208
- Green, A, 2010, 'Heartless and unhomely? Dwellings of the poor in East Anglia and North-East England', in McEwan and Sharpe, 2010, 69-101
- Goor, Jurrien van, 2004, *Prelude to Colonialism: the Dutch in Asia*, Hilversum
- Horning, A, 2006, 'Archaeology and the construction of America's Jamestown', *Post-Medieval Archaeology*, 40/1, 1-27
- Jacobs, E M, 1991, *In Pursuit of Pepper and Tea: The Story of the Dutch East India Company*, Amsterdam,
- Jarvis, M, 2011. 'Bermuda's 'Domesday Book': Richard Norwood's surveys and the development of the Somers Islands, 1616-63' *Post-Medieval Archaeology*, 45/1, 54-73
- Jayasena, R, M, 2006, 'The historical archaeology of Katuwana, a Dutch East India Company fort in Sri Lanka', *Post-Medieval Archaeology*, 40/1, 111-128
- Kasthurba, A K, 2012, *Kuttichira – A Medieval Muslim Settlement of Kerala*
- Keay, J, 1991, *The Honourable Company: A History of the English East India Company*, Harper Collins, London
- Kieniewicz, J, 1969, 'The Portuguese Factory and Trade in Pepper in Malabar during the 16th Century', *Indian Economic & Social History Review*, 6, 61-84
- Kieniewicz, J, 1986, 'Pepper gardens and market in pre-colonial Malabar' *Moyen Orient & Océan Indien XVIe – XIXe s.*, 3, 1-36

- Krishnappa, M V, and Gopal, R 2000, *Recent Researches in Karnataka Archaeology*, Mysore
- Malekandathil, P, 2003, 'Maritime Malabar and a Mercantile State: Polity, and State Formation in Malabar under the Portuguese 1498-1663', in Mathew 2003, 197-228
- Malekandathil, P, 2013, 'Indian Ocean in the Shaping of Late Medieval India'
- Mason P, McAree, D and Soden, I, forthcoming, *Coventry's Medieval Suburbs: Excavations at Hill Street, Upper Well Street and Far Gosford Street*
- Mathew, K S, 2003, *Maritime Malabar and the Europeans*, New Delhi
- Mayer, A C, 1952, *Land and Society in Malabar*, Oxford University Press
- McEwan, J, and Sharpe, P, 2010, *Accommodating poverty: the housing and living arrangements of the English poor, c. 1600-1850*, Palgrave
- Mehta, R N, 1979, *Medieval Archaeology*, New Delhi
- More, L, 2003, 'Early Indian Resistance to Colonialism in South Kerala', in Mathew 2003, 339-362
- Nelson, W A, 1984, *The Dutch Forts of Sri Lanka*, Glasgow
- Nambirajan, M, 2007, *Coastal Archaeology of Western India*, Delhi
- Nilavendan, M, 2012, 'Archaeological excavation of Thrangampadi (Tranquebar) at Danish Fort', *Indian Streams Research Journal* 2/8
- Orme, R, 1805, *Historical Fragments of the Mogal Empire*
- Panikkar K M, 1929, *Malabar and the Portuguese*, Bombay
- Pearson M N, 1981, *Costal Western India: Studies from the Portuguese Records*
- Pearson, M, 1987, *The Portuguese in India*, Cambridge University Press
- Pecoraro, L J and Givens, D M 2006, 'Like to perish from want of succor or reliefe: the provisioning of 17th-century Virginia during times of change', *Post-Medieval Archaeology* 40/1, 62-79
- Pinto, Dr D A, 1993, *The Church of Our Lady of Immaculate Conception, Sunkeri, Karwar*

Prakash, O, 1981, 'European trade and South Asian Economies: some regional contrasts, 1600-1800 in Blusse and Gaastra 1981

Prakash, O, 1998, *European Commercial Enterprise in Pre-colonial India*, New Delhi, OUP

Rawlinson, H G, 1921, *British Beginnings in Western India*, Oxford

Robins, N, 2006, *The Corporation that Changed the World: How the East India Company Shaped the Modern Multinational*, Hyderabad

Shashidhar, H and Murthy, N S, 2004, *A Historical Atlas of Karnataka*, Karnataka

Silva, S, 1957, *History of Christianity in Canara*, Vol I, Kumta

Smith, F H and Watson, K, 2009, 'Urbanity, Sociability, and Commercial Exchange in the Barbados Sugar Trade: A Comparative Colonial Archaeological Perspective on Bridgetown, Barbados in the Seventeenth Century', *International Journal of Historical Archaeology*, 13, 63-79

Steensgaard, N, 1973, *The Asian Trade Revolution of the Seventeenth Century: The East India Companies and the Decline of the Caravan Trade*, Chicago

Subrahmanyam, S, 1986 'Aspects of State Formation in South India and Southeast Asia, 1500-1650', *Indian Economic and Social History Review*, 23, 357-377

Tripathi, S, Gaur, A S, Sundaresh, S and Bandodker, S N, 2001, 'Exploration for shipwrecks off Sunchi Reef, Goa, west coast of India', *World Archaeology*, Vol 2: No 3, pp 355-367

Watson, I B, 1976, 'The Establishment of English Commerce in North-Western India in the Early Seventeenth Century', *The Indian Economic and Social History Review*, Vol XIII, No. 3, 375-391

West, E W, 1989, *History of the Bombay Karnataka: Mussalmán and Marátha A.D. 1300-1800*, New Delhi

Online Resources

Archaeological Survey of India, Excavation Sites in Karnataka,

http://asi.nic.in/asi_exca_2005_karnataka.asp

Archaeological Survey of India, Thrissur Circle Excavations,

<http://www.asithrissurcircle.in/Excavations.htm>

Archaeological Survey of India, Thrissur Circle Monuments,

http://www.asithrissurcircle.in/Monuments.html#Tellicherry_fort

BBC Your Paintings, <http://www.bbc.co.uk/arts/yourpaintings/about/#section18>

Biosource Potential of Karnataka,

http://wgbis.ces.iisc.ernet.in/energy/water/paper/TR109/tr109_mainframe.htm

British Library Online Gallery,

<http://www.bl.uk/onlinegallery/onlineex/apac/other/019wdz000000677u00000000.html>

Frontline, Issue10,

<http://www.frontline.in/navigation/?type=static&page=flonnet&rdurl=fl2010/stories/20030523000106500.htm>

Johnson's Dictionary Online, <http://johnsonsdictionaryonline.com/dictionary/1020.gif>

Jenson.in, English-Malayalam Dictionary,

http://jenson.in/dicts_mal.php?word=cota&submit=1

Kerala Tourism, <http://www.keralatourism.org/malabar/thekkepuram-kozhikode.php>

Oxford Dictionaries, <http://www.oxforddictionaries.com/definition/english/factory?q=factory>

SahilOnline, <http://www.sahilonline.org/english/newsDetails.php?cid=7&nid=11336>

The Times of India, <http://timesofindia.indiatimes.com/india/First-English-factory-in-India-in-ruins/articleshow/20622537.cms>

