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The Evolution of Dragons in Asia: an Examination of how Cultural Diffusion has Impacted Depictions of Dragons over Time and Geographical Range

By Colin John Cook

ABSTRACT

This paper examines the evolution of depictions of dragons in Asia from their origins, and links these changes to the theory of cultural diffusion.

This work has the dragons of Asia divided into a number of traditions, with this work focusing on the Indo-European, East Asian, and Naga traditions. In order to do a proper analysis of these traditions, case studies have been chosen for each one, and a final case study has also been used to discuss the lack of information about dragons beyond regions of mainstream study.

This paper demonstrates that diffusion can often be linked to changes in dragon depictions, and that as a result of diffusion, the dragons of Asia form a continuum of change, moving between geographical regions.

The Evolution of Dragons in Asia: an Examination of how Cultural Diffusion has Impacted Depictions of Dragons over Time and Geographical Range

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2024

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#### LIST OF ABBREVIATIONS

PIE - Proto-Indo-European - 15

## DECLARATION

All assessed work to be submitted for my degree [or other qualification] will be a result of my own work except where group project work is involved, and that I will comply with the TEI's guidance on multiple submission. In the case of a group project, the work will be prepared in collaboration with other members of the group. In all other case material from the work of others not involved in the assessment, including the use of generative artificial intelligence tools, will be acknowledged and quotations and paraphrases suitably indicated.

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## ACKNOWLEDGEMENTS

I would like to thank Dr. Zhang for helping me gather the data for the sample dataset for case study 3, through his provision of sources and translation from Chinese to English.

## INTRODUCTION

My intention with this work is to examine dragon representations from across Asia in order to demonstrate how they have changed over time and as traditions of representation have moved geographically. One of my goals with this is to highlight how these changes can correspond to known socio-political changes in the region, thus using diffusion theory to show how these interactions can be represented in artwork and literature. Furthermore, due to the geographical scale this project covers, the dragons in this area have been divided into a number of traditions, and by doing this, diffusion theory allows one to look at potential ancient movements of people, and so the movements of ancient groups of people will also be something this project looks at.

Asia was chosen as the focus for this project for multiple reasons, the chief being because Asia is where the oldest known potential dragon representation in the world that I am aware of is from (Tu, et al., 2022:4). Combined with the presence of at least five traditions of dragons on this continent, I felt it the most suitable location for this project to be based on.

My general methodology for this project is to first separate the depictions by tradition and decide, of the dragons in the region, which ones I feel are particularly prominent or notable within each tradition to serve as the focus of a case study. For each tradition a suitable, specific methodology chosen to examine the case study will then be used to look into each of them. The reason for focusing on individual case studies is because the data collected is only a sample of the information that exists, and it will be impossible to gain information on every single representation of dragons in Asia.

The Indo-European tradition will be considered using a form of the method used by Bruce Lincoln (1976:60-61) in his reconstruction of the Proto-Indo-European dragon-slaying legend, though instead of looking for similarities to piece together the original story, I will be looking for when differences occur in order to show when divergences happened. The discussion for this case study will, due to the nature of what will be most prominently discussed about them, be primarily qualitative in nature. The case study for this tradition is the Iranian dragon Azi Dahaka.

The East Asian tradition will primarily be considered through a quantitative analysis, though later (2<sup>nd</sup> century BCE and later), as well as earlier (pre-1600 BCE) examples from this tradition will also be considered in a qualitative way similar to those of the Indo-European tradition both in the sections relating to this case study and in other sections. The case study for this tradition is the somewhat general pre-Buddhism Chinese dragon (i.e. pre-Han dynasty).

The Naga tradition will mostly be qualitative in nature, owing to how this tradition has been merged with the Indo-European, East Asian, and Austronesian traditions at the very least. The case studies for this tradition are the nagarajas, with a key focus on Sesha, Takshasha, and Vasuki.

For the Siberian and Austronesian traditions, not enough information has been made available to do a proper analysis. As such, a fourth case study focusing on the

lack of information available in certain instances will be included in this project. The dragon which this case study will focus on is the Japanese Yamata no Orochi. While this dragon is technically part of the Indo-European tradition, it is enough of an enigma that I have decided it was suitable for this purpose.

For the purposes of my discussion about these dragons, I have also divided them into categories based primarily on their physical traits. The number of heads is considered separately for the purposes of categorisation due to how common multi-headed dragons are in the Indo-European and Naga traditions.

Category 1 are sea serpents. They are dragons who are depicted as primarily residing underwater, generally in rivers and the sea. Tiamat of Mesopotamian mythology is an example of a sea serpent.

Category 2 are animal-like dragons, henceforth to be referred to as drakes. There is great variation in their appearances due to different cultures combining different animals with serpents to create the dragons of this category. Examples include the Mesopotamian Mushussu, and the Chinese Phoenix Dragon.

Category 3 are dragon-humanoid hybrids, often depicted as being primarily humanoid with some draconic features. This does not mean having a dragon parent and a human one, but instead means a chimerical being with human and dragon features. Marduk, the slayer of Tiamat, is depicted as such in the *Enuma Elis*, as is Zahhak of the *Shahnameh*, having two additional serpentine heads growing from his otherwise human body.

Category 4 are serpentine dragons, henceforth to be referred to as wyrms. They are, physically at least, identical to snakes, though are generally depicted as being considerably larger. They tend to be from the older dragon-legends of the Indo-European tradition. Azi Dahaka is an example of a wyrm.

Category 5 are four-limbed dragons, generally with no wings and possessing a long, snake-like body. Because of how these dragons are generally referred to in pop-culture, and due to their general association with the East Asian tradition, these dragons will be referred to as Eastern Dragons. More often than not, they are associated with rivers, and in the *Shahnameh*, Fereydun took the form of one to test his sons' bravery.

Category 6 are dragons with a pair of wings and either a single pair of legs, or no legs. They will be referred to as wyverns in this work. Though depictions of wyverns are rare in Asia, they are at the very least depicted on some artworks from Al-Jazira (The Khalili Collections, 2024).

Category 7 are dragons with four limbs, a pair of wings, and a body that is generally more reminiscent of a crocodile than a serpent. They will be referred to as western dragons in this work. As the name suggests, these are the dragons commonly associated with western cultures, and are generally the sorts of dragons that are represented in typical western fantasy stories and legends from Europe. In Asia, a common example of a western dragon is St. George's dragon.

Category 8 are serpentine dragons with the faces/heads of humans, which shall be referred to as nagas in this work. It should be noted that some dragons conventionally considered to be of the Naga Tradition do not come under Category 8, and this can be potentially attributed to influence from cultures where other categories of dragons are depicted much more commonly, and this is something which will be elaborated on in greater detail in later sections of this work. This category will be discussed primarily in the sections on the Naga Tradition, from which this category gains its name.

Category 9 are serpentine dragons with a single pair of legs, which shall be referred to as lindworms in this work. While the name is generally associated with northern European dragons, dragons of this body type appear as far as China. The dragon form of the Ancient Egyptian scribe Ani is an example of a lindworm (Goelet, et al., 2015:88).

Category 10 are wingless dragons that live on land and are both of particularly large size, and also have their great size being a defining part of their representation. These dragons will be referred to as behemoths in this work. Only a single behemoth dragon is considered in this work: Yamata no Orochi, a dragon large enough to tower over eight mountains, and who possessed an entire forest growing on his back.

The Oxford English Dictionary provides a number of definitions of dragons:

- “A huge serpent or snake; a python”, as an obsolete definition primarily used in the present only for etymology.
- “A mythical monster, represented as a huge and terrible reptile, usually combining ophidian and crocodilian structure, with strong claws, like a beast or bird of prey, and a scaly skin; it is generally represented with wings, and sometimes as breathing fire. The heraldic dragon combines reptilian and mammalian form with the addition of wings.”
- “In the Bible versions reproducing *draco* of the Vulgate and *δράκων* of the Septuagint, where the Hebrew has (a) *tannin* a great sea- or water-monster, a whale, shark, or crocodile, also a large serpent; or (b) *tan* a desert mammalian animal, now understood to be the jackal, and so rendered in the Revised Version.”
- “An appellation of Satan, the ‘Old Serpent’”
- “An appellation of Death” as an archaic definition.
- “A fierce violent person; *esp.* a fiercely or aggressively watchful woman; a duenna.”

Beyond here, the definitions get repetitive or are the word “Dragon” being applied to other animals, objects, plants, and a disease (2024). These various definitions show that the term can be widely applied, being used for animals, mythical entities, and even people. Owing to how broad a set of definitions these are, I will instead be using the definitions of the various categories of dragons defined earlier in this section for this work going forward in order to make it more manageable.

## LITERATURE REVIEW

### General Literature

The first works I will discuss in this section are the works of the late Robert Blust (2000 & 2023). Blust's works are fairly modern, with one of his works I am using only being published last year, as of the time of writing this. As works on dragons go, they are well-researched, using data collected through intermediaries from all across the globe. Regarding the actual content, Blust gives a nice, simple presentation of the evidence for his conclusions, and one can understand how he reached the conclusions he did, at least those mentioned within the main body of his work, even if some of the eventual, final conclusions seem like a bit of a stretch. The 2000 work can be considered to be a much more condensed version of the 2023 work, which goes into significantly more detail.

As previously stated, these works focus on dragons on a global scale. This is both a strength and a weakness in them. On the one hand, it is a strength as it provides information on dragons from cultures that aren't well documented outside their own nations, such as the dragons of Austronesia, but on the other hand, it leads to lots of generalisations in how he divides dragons up for analysis: instead of focusing on dragons within particular traditions, he focuses solely on dragons within a large geographical area, with Asia being split into the Ancient Near East, South Asia, and Central and East Asia (2023:25-27), or the Near East, India, and the Far East (2000:520). This means that he was potentially looking at dragons from three to four different traditions in some of his geographical areas. For both his tables (2023:26 and 2000:520), he needs only a single dragon within each area to give a positive mark, meaning it becomes much more likely that his results are made at least somewhat more generalised through the inclusions of dragons of multiple traditions in each geographical category, as well as reducing their direct usefulness for my work.

Furthermore, while Blust accepted the possibility of dragons originating in multiple locations (2023:24), his works seem to argue for a somewhat more hyperdiffusionist model (2000:519), and in one of his other works explicitly states that, in his opinion, dragons originated as rainbow serpents, a single belief he claimed was held by the entirety of humanity (2019:179), thus showing a hyperdiffusionist bias in his work.

Finally, we come to Blust's conclusions. While he does successfully argue the case for there being a connection between dragons and rainbows, some of his conclusions just don't feel justified by his work, in my opinion. Particularly his conclusion in his final work wherein he discusses his theory that dragons universally having their origin in rainbows is the only correct theory and that all others are wrong (2023:278), is just not convincing, mostly because of what I consider to be flaws in his methodology.

A separate work done on dragons was done by Mary Barnard in 1964. Her work, while incredibly short, was one of the earlier works that argued for multiple dragon origin points (1964:422). This is in contrast to other contemporary works, such as the *Standard Dictionary of Folklore, Mythology, and Legend*, which even in the 1975

edition claimed that all dragon legends originated in Babylonia, though with influence from Egypt (1975:323).

Aside from arguing against hyperdiffusionism, her work is also notable for the novel theory that dragon legends were based on serpent dances in various regions, which she explains are one of the most basic forms of dance, to the point that behaviour similar to serpent dances has been witnessed in chimpanzees (1964:424). Though I personally do not accept her hypothesis, owing to it being an incredible oversimplification of how different cultures in general are, some of her ideas do have some merit, such as her explanation for the use of alcohol in certain dragon legends (1964:425-426), which I find easier to accept than the alternative theory presented by Bruce Lincoln about the presence of alcohol in some Indo-European dragon-slaying myths being based on a sacrifice performed in the Proto-Indo-European original (1976:48-50). Overall, while her ideas about the origins of dragons being linked to seasonal festivals are not convincing to me, unlike her multiple origin point theory, I am of the opinion that Barnard's theory is still worth looking into more, though in a work other than this one.

Charles Gould's 1886 work, *Mythical Monsters*, while not about dragons specifically, does contain multiple sections on them. Despite being an early work, Gould attempts to separate dragons in North Africa and Eurasia into different traditions, putting the North African, European, and Indian dragons, those that would later become classified as those of the Indo-European tradition, into one group, while Chinese dragons, Japanese dragons, and sea serpents he considered as separate groups. Gould mostly used classical texts as sources for his work, and favours the idea of Indo-European dragons being based on snakes, particularly boas and pythons (1886:167, 171), while East Asian ones, owing to them being considered as separate from snakes from the earliest periods, he considers to be based ultimately on alligators (1886:221). With regards to East Asian dragons, Gould is of the opinion that diffusion is how their legends spread (1886:248), as opposed to the Indo-European dragons, which he indicates more local origins for. Strangely, despite these ideas about dragons originating as snakes and alligators, in his conclusion on dragons, he instead advocates for an idea that all dragons are based on an extinct species physically similar to depictions of East Asian dragons, which goes against most of what he had said previously (1886:258-259). Regarding sea serpents, Gould is thoroughly convinced from the outset that they exist, and concludes his section on them that he believes them to be a number of closely related species that simply have not been discovered yet (1886:335).

Regarding Indo-European dragon legends, Gould was of the opinion that, in the distant past, snakes had few natural predators and were able to grow much larger than those of today, to the point that they would ravage a huge territory just to survive, resulting in the humans living in those places having to fight them, with the luckiest, most well equipped humans being the ones who killed the snakes, being dubbed heroes for it (1886:172-173). He also suggested that, once dragons were established as mythical creatures, dragon stories were based on the capturing of castle walls and the prevention of flooding (1886:200-201). The capturing of the castle walls, which Gould supposes was the origin of the hero rescuing the princess from

the dragon, is a different interpretation of the princess motif than that depicted by Lincoln (1976:53), though I am inclined to accept Lincoln's explanation due to it having more linguistic evidence to support it. Overall, Gould provides some interesting theories for Indo-European dragons, but provides little evidence to back them up, whereas other authors do, meaning that, while interesting, his theories can generally be ignored.

Smith, in his 1919 work *The Evolution of the Dragon*, instead of merely focusing on the origin of the dragon, like some of the other authors mentioned here, instead focuses on how they have changed over time. In the beginning of his section on dragons (which, despite the name of the work, is a third of the way in), he explains that the reason why dragon myths change is because the stories have been told and retold over countless generations, with each person retelling the story having the ability to control how the narrative goes. He explains that each person "censors" the story differently, owing to their own opinions and biases, and that when it is later retold, the retelling is done by a different person, with different opinions and biases, leading to the story of the dragon changing over time as more and more people change the story (1919:77). This is something from his work I can accept since it makes sense.

In regards to diffusion, Smith takes a hyperdiffusionist perspective, arguing that all dragon myths can be traced to the Ancient Egyptian myth about the conflict of Horus (and Hathor) against Set (1919:78-79). To back up his hyperdiffusionist claim, he points out that dragons all over the world have been depicted as chimerical, and the extent to which the chimerism is arbitrary points to a single common ancestor (1919:81). Smith specifically criticises Gould's work for attempting to link dragons to real life animals due to the chimerical nature being ignored (1919:81). In his effort to link all dragon myths to Ancient Egypt, he goes as far as claiming that American dragons were influenced by those of Indonesia and Cambodia (1919:83), something we know in the present to be incorrect. Some of his other claims, such as the implication that Scottish mythology is based on Vedic mythology (1919:88), and that Edmund Spenser was stealing Māori imagery for his *The Faerie Queene* (1919:90) just show how ill-informed his hyperdiffusionist theories were. The only redeeming feature his theory has is in his description of how the associations between Horus, Hathor, and Set were equally applicable to both the concept of the dragon, and the dragon slayer (1919:78-79), and how the dragon-slayer and the dragon have much in common. Following Bruce Lincoln's reconstruction of the Proto-Indo-European (PIE) dragon-slaying myth, which the Egyptian legends of the conflict between Horus and Set, and between Re and Apep descend from, a similar parallel between the PIE hero \*Trito-, whose name means "third" (Lincoln, 1976:43), and the PIE dragon \*ng<sup>w</sup>hi, a three-headed serpent (1976:58), can be seen, with the number 3 being integral to both the hero and the dragon, indicating that they may have been viewed as equals and opposites, in much the same way Smith argues for the associations between Horus, Hathor, and Set.

Another text which is of great importance for working with diffusion theory in general is Claude Lévi-Strauss' *Structural Anthropology, Vol. 2*, owing to its discussion of transformations within a narrative as reflexes are created. The key

transformation discussed by Lévi-Strauss that has been of use in this work is the transformation of inversion, whereby a feature is changed to its opposite when its reflex is created (1976:30-31). Since this concept can be somewhat confusing, I shall briefly give an example of this that has come up over the course of this work: in the Ainu *yukar* (saga) of the dragon *Sak-somo-ayep* (“That which must not be mentioned in the summer”), which the evidence I have collected suggests is ultimately of Indo-European origin, describes amongst other things the first encounter between the hero and the dragon. In the reconstructed Proto-Indo-European original, this first encounter involves the dragon stealing something important from the hero, identified by Lincoln as cattle (1976:58) and by West as the world’s waters (2007:255). In this Ainu version, though, the first encounter has the hero instead trick the dragon, ultimately leading to the second encounter, wherein *Sak-somo-ayep* is killed (Phillipi, 1979:115-157).

Ultimately, the reason this text is important for my overall work is because it explains how things that can initially seem very different can, in fact, be closely related to each other.

The use of this piece of theoretical work is sufficiently divorced from the problems I personally have with other parts of Lévi-Strauss’ works that I feel it is a suitable addition to my theoretical framework. The issues I have are with some of the conclusions Lévi-Strauss comes to based on similarities between some European and North American mythologies, which, instead of attributing to hyperdiffusionism like some scholars of his time would, he instead attributes to humanity’s underlying instincts causing the same motif to be repeated in vastly different parts of the world (1976:33), something I also find a stretch to believe. While I do not suggest diffusionism, yet alone hyperdiffusionism as the explanation for this, I do not accept that the underlying instincts of humanity could be responsible for vastly different cultures independently developing myth cycles based, to use Lévi-Strauss’ example, on a connection between mother-son incest and the solving of a puzzle. Such a thing seems, to me at least, too farfetched to be realistic, and in my opinion is more likely to be the result of coincidence than the effects of underlying human instincts.

*Polynesians in America: Pre-Columbian Contacts with the New World*, a volume edited by a number of individuals including Terry Jones, discusses diffusion theory and hyperdiffusionism, and why hyperdiffusionism has caused archaeologists to shun diffusion theory since the 1970s. The writers of this book explain how hyperdiffusionism is inherently racist, owing to it limiting the existence of true innovation to an incredibly select handful of people, and thus detracting from the developments made by people of every other culture in the world, and they specifically call out Smith’s hyperdiffusionist views for his incredibly racist claim that all cultures aside from that of Egypt were degenerate knock-offs. They then go on to describe how diffusionist narratives were demanded by politicians in some countries, such as Ecuador, which caused diffusion theory to be deemed “unscientific”, with some archaeologists then denouncing diffusionism and presenting alternative theories (Jones, et al., 2011:10-21). This is important background for my work as, since my work is based on diffusion theory, one of my goals is to show that it is a viable

archaeological theory, in line with the improved form of diffusionism suggested by these authors (Jones et al, 2011:19-21).

### Indo-European Tradition

The key source for the Indo-European dragon tradition is Bruce Lincoln's *The Indo-European Cattle-Raiding Myth*, where he presents a reconstruction of the Proto-Indo-European (PIE) dragon-slaying/cattle-raiding myth (1976:58-64). Lincoln's work regarding the Indo-European dragon tradition, at its simplest, is using extant dragon stories, as well as similar stories, to reconstruct the original PIE myth. Lincoln admits that his work is not definitive, and that future research would be beneficial to provide more information on the PIE myth cycle (1976:64-65). From my perspective, while most of his work is sound and well-reasoned, there are some flaws in his arguments, and there are some aspects with which it would be advantageous to consider Lincoln's work in the context of more recent scholarship.

This source, contrary to other contemporary sources such as the *Standard Dictionary of Folklore, Mythology, and Legend*, implicitly argues for multiple dragon traditions due to its focus on the PIE origin, discussing dragon legends from Europe, the Middle East, and India, with mention made as well of Egypt and Indonesia (1976:44). No mention is made though of China, the Americas, or Africa beyond Egypt, which creates the implication that the dragons of these regions belonged to wholly separate traditions to the Indo-European ones. This therefore shows a move away from hyperdiffusionist thought regarding dragons which, while not the first to do so (e.g. Barnard, 1964:422), is one of the first to properly discuss it and provide evidence to separate a particular tradition from the others, instead of merely hypothesizing.

The main issue I have with Lincoln's work is his implication that the uniquely Indo-Iranian feature of \*Trita drinking \*sauma- to gain his heroic powers (1976:48) can be considered a feature of the earlier PIE myth. Though he repeatedly says this is a feature unique to Indo-Iranian stories (1976:63-64), he also includes it as a category in his table comparing various features of Indo-European dragon myths (1976:60), hence creating the implication which he provides no other evidence to support.

A more recent work on reconstructing Proto-Indo-European mythology is *The Oxford Introduction to Proto-Indo-European and the Proto-Indo-European World*. This work has a chapter focusing on Proto-Indo-European myths and their reconstructions (Mallory & Adams, 2006:423-441). It is primarily descriptive in nature, and the section on the serpent-slaying myth is no exception to this, though it does provide some examples from descendant mythologies to back up some of the points made. Mention is made about Lincoln's theory about the dragon-slaying myth being the same as the cattle-raid myth (1976:43-44), but they make it clear that this is just a theory (Mallory & Adams, 2006:437). Ultimately, while short, this section of the work is direct about what it is trying to get across.

While adding nothing new to the reconstructed PIE dragon myth itself the main use of this source is providing information on additional reconstructed PIE

myths (Mallory & Adams, 2006:431-440), which can be used to provide more context to later descendant myths and, possibly, be additional parts of the PIE dragon-slaying myth, such as the fire in water story (Mallory & Adams, 2006:431-440), which could give an origin for the idea of fire being used as a weapon against dragons, as depicted in the Egyptian *Book of Overthrowing Apep* (Faulkner, 1938:44).

An alternative reconstruction of the PIE dragon-slaying myth is given by Martin West, in his *Proto-Indo-European Poetry and Myth*. This reconstruction is based primarily on myths where a storm deity, or a hero with the traits of a storm deity (2007:238-255), fights against the evil water serpent, and thus has a number of differences to Lincoln's version.

While the dragon-slaying myth is not the focus of West's work, it is the most relevant section for my work. West discusses many myths in his work, many more than Lincoln, which therefore increases the reliability of his conclusions as he is drawing on a wider variety of sources. He also, due to his work focusing on poetry, uses many instances of identifying identical phrases from different accounts of the dragon-slaying myth to support his arguments, as he is able to claim a potential shared Proto-Indo-European origin for these phrases, which further supports the accuracy of his reconstruction due to him being potentially able to identify actual phrases from the PIE original (2007:256-259).

Overall, though he argues soundly for his points where he has much evidence supporting the events of the myth, the differences in the level of detail regarding the PIE dragon-slayer himself given by Lincoln and West is somewhat jarring. West, using identical phrasing between different cultural depictions, understands the dragon to have been burned and beaten with a blunt object before being left in the water (2007:256-259), and even undermines his theory of it being done by the storm deity by including the stories of Apollo and Python, and Apaoša and Tištrya (2007:257-258). Lincoln, on the other hand, has a much more coherent argument specifically for \*Trito- as the dragon-slayer as a result of his analysis of the names of a number of mythical dragon slayers, as well as other details from their myths, whereas West just makes the assumption of it being the storm god due to many myths that have reached the present being about storm gods. As such, while West is a good source for specifically what happened during the fight, Lincoln is, as far as I am concerned, more reliable for the identity of the PIE dragon-slayer, though I would not be surprised in the slightest if there was a connection between \*Trito- and \*Perkwunos (the PIE storm god) that we are as-of-yet unaware of.

Another source helpful for working with the Indo-European tradition of dragons was the *Dictionnaire Infernal*. The 1863 edition of the *Dictionnaire Infernal* is the most famous edition of this work, containing not only the famed wood-carved illustrations, but also a number of entries not present in the previous five editions. This work is primarily an encyclopaedia about world folklore, as it was understood in 19<sup>th</sup> century France. This source is a particularly good one for very obscure information, such as that on a Napoleonic Apep cult in Egypt (1863:55), but it has some serious flaws as well: de Plancy has a strong French Catholic bias in his work, which causes him to occasionally misrepresent information to make it fit better with his worldview, such

as referring to Hindu deities as demons (1863:295-296). In short, whenever he refers to something as a demon and it isn't mentioned in the *Ars Goetia*, it is likely a non-Christian deity he is referring to. He is also very racist in his work, primarily for religious reasons, and displays a special animosity for the English due to Protestantism. Like the *Standard Dictionary of Folklore, Mythology, and Legend*, there is also the issue for modern readers of antiquated terms that now have racist connotations, but de Plancy goes further to the point that there is no real political correctness in his work – he is confident that Catholics (primarily the French ones) are the greatest people in the world, and everyone else he talks about are misguided heretics. The level of political incorrectness does fluctuate though: when dealing with more obscure topics, he tends to keep this to a minimum in order to convey the information he has on it, whereas less obscure topics are where he is more willing to insult other cultures. Ultimately, de Plancy was a product of his time and, while much of what he says is considered rude and incorrect at best by modern audiences, his work is still a valuable source of information, particularly for the more obscure topics relating to folk beliefs. It is also a valuable source of other sources to look into, owing to de Plancy often referencing his own sources, and these sources generally provide further information.

Regarding diffusion theory, though, de Plancy's work is not especially suited for a discussion about it, and while this work is useful for supplying context, one must get through the biases first.

*The Near-Eastern Roots of the Neolithic in South Asia* is an article that has been of use for this project in regards to the support it offers a hypothesis of mine relating to Mesopotamian dragons. This article provides evidence for a connection between Neolithic Mesopotamia and the Indian subcontinent (2014:2), which supports my hypothesis based on irregularities in Mesopotamian dragon depictions and both Tiamat and Vritra being associated with the act of creation despite their closest common origin being \*ng<sup>w</sup>hi as far as I can tell. My hypothesis is that there was an ancient dragon tradition originating in Mesopotamia, which the Vritra connection suggests was spread to the Indian subcontinent at one point, and was eventually subsumed by the Indo-European tradition, though there was seemingly some resulting influence on the Indo-European dragon legends in the areas where this hypothetical tradition was present. What this article does is suggests a means for diffusion between ancient Mesopotamia and the Indus Valley civilisation, and provides evidence to show that diffusion did occur between these places in other contexts at the very least. As such, though it does not contribute majorly to this work, this text is of great importance to this hypothesis of mine which this work develops.

Furthermore, the focus on this work on diffusion also helps with exploring and justifying diffusion theory, though the timeframe it discusses, predating Indo-European influence in the regions, does limit its usefulness in this context beyond developing my hypothesis, as it is otherwise seemingly divorced from the depictions of dragons.

## East Asian Tradition

One of the most useful sources I have found for this case study is *Economy, sharing strategies and community structure in the early Neolithic village of Chahai, Northeast China*. The parts of this work that are useful to me are the images of the Chahai dragon-like stone pile (2022:4) and the analysis of its purpose (2022:13-14), ultimately a very small part of this work. These sections are important for my work though, because the Chahai stone pile is, as far as I have been able to find, the oldest potential dragon image in the global archaeological record, dating back to the Xinglongwa culture, (c. 8-7.2 kya) (2022:3). There has been a distinct lack of scholarship on this site, and this article is the only source for it that I have deemed reputable. The analysis of the dragon, as well as the information on its location, also provides important cultural information for how the dragon was viewed by the people of Chahai, as well as serving as a potential starting point for looking at diffusion of Chinese-style dragons through Asia. My view, though, is that there is a distinct lack of scholarship on this culturally significant potential dragon, possibly due to political issues, and though I can mention this dragon in my own work, the general lack of information about it means my capacity to do so is somewhat limited.

Another work I have found notably useful is Yuka Kadoi's *Islamic Chinoiserie: the art of Mongol Iran*, because the work as a whole focuses on diffusion of cultural imagery due to political changes in a region, something I have attempted to demonstrate in other instances. Specifically, in one section it discusses how Iranian dragon imagery was altered after the Mongol conquest of the 13<sup>th</sup> century to bring it more in-line with that of China, while also acknowledging that in Eastern Iran there was already significant Chinese influence on dragon imagery (2009:20). This work is important because it not only gives a working demonstration of the process of change due to politics that I have been trying to show in my work, but it also gives a technical breakdown of the changes that occurred in the process of dragon imagery being altered. On the other hand though, there are a number of issues with this work: primarily the pro-China bias. Regarding this bias, Kadoi makes a number of comments about the Iranians of this period, claiming that their crafts were inferior to contemporary Chinese ones (2009:40), and how they were poorly educated due to Chinese motifs being used in unusual ways in post-Mongol Iranian art (2009:84), instead of understanding that similar motifs appeared in pre-Mongol Iranian art, and that, while their appearance was changed to be more in-line with the art of China, the use of the motifs did not necessarily change. Similarly, Kadoi also implies that the Mongols considered China's dragon depictions as superior to their own when she discusses their adoption of Chinese motifs and then describes the dragons in ways that sound more applicable to Chinese ones than Mongol ones, implying that the Mongols completely scrapped their earlier dragons and replaced them with Chinese ones (2009:22-23), something that I find unlikely to be an accurate representation of the actual situation due to the importance placed by the Mongol Empire on cultural equality. This overall means that, while Kadoi's work is useful in terms of giving a technical description of how things changed after the Mongol Conquest of Iran, there are times when she makes herself seem quite racist towards the people she is discussing.

A third work which I deemed to be of great importance to looking at the dragons of this tradition was Tan Chung's *Across the Himalayan Gap: An Indian Quest for Understanding China*, a book focusing on trying to bridge the gap between India and China. Specifically, it was the chapter *A Sino-Indian Perspective for India-China Understanding*, written by Chung himself which I have made use of, owing to its explanation of the impacts of Buddhism on Chinese depictions of *long* (1998:135). Chung's description of early *long*, while contrasting with the depictions in other sources, such as Roberts' (2010:33-34), is backed up by references to Wang Chong, a Han scholar who wrote about the contemporary depictions of *long* (Chinese dragons) in his lifetime, as well as those who wrote before (1998:135), which would suggest that this can be considered reliable at the very least. On the other hand, Chung's work has a notable Sino-Indian conceptual bias, with his goal being to try to depict the two cultures as being similar to each other, and even more so, he has a stronger pro-India bias in his writing due to (despite his insistence to the contrary) his depiction of India as being the source of just about everything about China he extols. As such, it is possible that he has exaggerated the impact of Buddhism on Chinese *long* in order to highlight his view that China has relied on India for many of its cultural developments over the millennia. Chung also makes claims about the god Siva and the Buddha being nagas (1998:135) which are ideas I have not come across before, suggesting he is either drawing from notably obscure sources, or that he is altering some of the facts in order to fit his narrative. While both are associated with nagas, with Siva being closely associated with the *nagaraja* (Naga king) Vasuki, and the Buddha being associated with many *nagarajas*, they themselves *being* nagas seems like something that belongs in an esoteric Buddhist tradition, like the tantric tradition he later paraphrases (1998:136-137), which suggests that he is drawing on the more questionable of sources in order to make his point.

Another source which has been of use for the East Asian tradition is the *I Ching*, an ancient Chinese guide to performing divinations with additional appendices on Chinese cosmology. This text has been useful in two main ways: firstly, it provides an early description of dragons of the East Asian tradition, both physically, and in terms of their associations (2020:95-96). Secondly, it gives information on the Four Symbols of Chinese astrology and their importance: according to the text, *Khwǎn* (inactivity) and *Khien* (activity), through the application of *Yi* (understanding which enables human action) in various forms, creates the Four Symbols, which, in turn, created the Eight Trigrams to determine good actions from evil actions in order to allow humanity to flourish (2020:346-347), ultimately meaning that the Azure Dragon of Chinese astrology can be understood to be one of the four key influencers of everyday human life through their interaction with the other three of the Four Symbols, particularly the influences associated with the east and spring, through their action and inaction, at least as far as this cultural tradition is concerned.

A final source that I have found particularly useful for looking into this tradition is Jeremy Roberts' *Chinese Mythology A to Z*. This book provides a general overview of Chinese mythology and, while not going into enough detail to mention things like the *yin shu* (a Chinese reflex of the dragons of the Siberian tradition), it does contain a number of dragon legends, including some about the *longwang* (dragon kings), as

well as providing information about the impacts of Buddhism on the Chinese portrayal of *long* (2010:32-37). In addition, this book also provides information about Leigong, a Chinese storm god who bears indications of having strong Indo-European influence, who also killed a “demon lizard” (2010:71-72), which can be identified as a category 5 dragon separate from the East Asian *long*. This has implications for the overall development of dragons in China, and for the spread of the Indo-European tradition as well.

### Naga Tradition

The *Standard Dictionary of Folklore, Mythology, and Legend* is a substantial, encyclopaedic volume containing information from all over the world. The benefit of this work is that it includes much information, some of which is otherwise very difficult to find, and the information it contains was compiled by a number of different folklorists, allowing it to deliver a high degree of professionalism on the vast majority of its content. Its main downside though is its notable American bias: for a work that deals with cultures from all over the world, there is a noticeably high number of references to various Native American cultures, likely owing to the book originally being published in America, and many of its contributors being American. There is also a degree of racism in the work, most notably when different areas with vastly different cultures are grouped together in the sections giving cultural overviews. In my research, this was most noticeable in the section on the mythologies of the Malay Archipelago (1975:518-521), which, while acknowledging that there are a number of cultures there, was referred to just as “Indonesia”. In addition, to modern readers in particular, some of the terms used are now outdated and considered racist. Another problem with this work was the fact that it was originally published over 70 years ago (the edition used was the 2<sup>nd</sup>, more recent edition), and thus some of the information is unfortunately based on theories that have been discounted by more recent scholarship, such as the claim that all dragons came from Mesopotamia (1975:323), something which has since been disproved. This specific piece of information demonstrates a hyperdiffusionist perspective which, while unfortunately common at the time this source was written, is incorrect. All in all, it is a very useful source for specific topics, but the accuracy decreases when it comes to more general topics.

On the other hand, it contains a good amount of information about mythical traditions that emerged from the Indian subcontinent, meaning it can be used to help with the case study for the Naga tradition at the very least.

*Symbolic Animals in the Land between the Waters: Markers of Place and Transition* is a work detailing the animal myths of Indonesia. It is useful particularly because it mentions a number of island-specific naga legends, links them to Hindu legend, and then goes on to describe the evolution of these legends into stories purely about animals (namely the Hornbill and the Watersnake) (2006:208-212). This is useful not only for providing cultural context for how nagas are viewed in Indonesia, but by also linking it to the legends of the Indian subcontinent, it can therefore be connected to existing scholarship on Indo-European dragon myths, including work on Proto-Indo-European beliefs, as well as naga myths. This is useful for discussion on diffusionism

because it fits it into wider scholarship on dragon diffusionism, as well as giving a concrete link between the dragons of Indonesia and India.

*Ethnic Conflict and Reconciliation in Sri Lanka* is another source for this work and, while not a major one, it is notable for presenting the theory, based on the descriptions given in the *Mahavamsa*, *Ramayana*, and *Mahābhārata*, as well as the description of the native peoples of Sri Lanka by Ptolemy, that the Naga and Yaksha people, at the very least, were populations of Tamil-speaking people living in Sri Lanka before the Sinhalese people arrived. The key evidence for this are the descriptions of Naga and Yaksha kingdoms in Sri Lanka predating Sinhalese arrival in both the *Mahavamsa* and *Ramayana* (1987:21), and the links between the Dravidian peoples (including the Nagas and Yakshas) with populations in north-west India (1987:22), influencing the depiction in the *Mahābhārata*.

This is important for my work as it establishes an origin point for the Naga tradition of dragons, identifying them with an ancient people of Sri Lanka. Having read the relevant sections of the *Mahavamsa*, *Ramayana*, and *Mahābhārata*, I am very much inclined to accept this theory and this work is written with the premise that it is likely true.

#### Other

One of the few sources I was able to find about Siberian dragons was *Arabic and Chinese Trade in Walrus and Narwhal Ivory*. Mentioned in this source is a Sino-Siberian myth about a creature known to the Chinese as a *yin shu*, an amphibious, subterranean rodent-dragon based on finds of mammoth bones in Siberia (Laufer & Pelliot, 1913:329). I was unable to find the sources mentioned in the text, nor was I able to find any other reputable sources that make mention of these creatures or any primary sources detailing them. As such, I was forced to cut them out of this work.

Another source I found relating to a dragon tradition that otherwise has little dated archaeological evidence linked to it is *The Prehistory of the Daic (Tai-Kadai) Speaking Peoples and the Hypothesis of an Austronesian Connection*. This presentation, given by Roger Blench to the European Association of Southeast Asian Archaeologists, discusses a proposed link between the Tai-Kadai-speaking peoples of South-East Asia and the Austronesian peoples. In one section, the serpent cults of the Austronesian natives of Taiwan and the Tai-speaking Zhuang people of Southern China are discussed in an attempt to show similarities in the typical iconography used by both cults in order to further support Blench's hypothesis (2008:7). While this work suggests that typical Austronesian dragons would be considered wyrms by my categorisation, there is no dating provided for Blench's examples of depictions, nor is there much context either. This seems to be the general state of information available about Austronesian dragons within Asia: little concrete dating and little direct information. As such, I have been forced to remove them as a dragon tradition my work focuses on.

Relevant instead to my case study focusing on where there is a lack of information was Zgusta's *The Peoples of Northwest Asia through Time: Precolonial Ethnic and Cultural Processes along the Coast between Hokkaido and the Bering Strait*, owing to

the information it provided about the people in the vicinity of the Amur River, specifically about their cultures' heavenly dragon, *mudur* (heavenly dragon), and their origins. This source was important because it provided key information demonstrating diffusion from the East Asian tradition into Siberia, while also demonstrating diffusion amongst the cultures of the Amur River. This linked to case study 4 due to the evidence for diffusion between the Ainu and the Nivkh, one of the cultures of this area. This, therefore, helped demonstrate diffusion theory in practice, as well as allow the evolution of a particular Ainu dragon to be traced back to China (2015:126).

On the topic of the Nivkh, another source relating to them was *Écailles de dragon et têtes d'ours – chez les Nivkhs*, an article which, amongst other things, describes some Nivkh beliefs revolving around *mudur*, including how they attack demons, causing these monsters to have a fear of the dragons' scales (Delaby & Beffa, 1998:146). This is useful for my work because it provides additional context relating to *mudur* and general Nivkh beliefs in this dragon and, as such, I was enabled to link this dragon with the Ainu Kanna Kamui, owing to the strong similarities between the two dragons. The text is not in English, though, resulting in me having to translate it myself, increasing the likelihood of mistranslations.

## RESEARCH QUESTIONS

The broadest of this work's research questions is "How have dragons in Asia changed over time and over geographical area?". This question is partially addressed by Kadoi in *Islamic Chinoiserie* when she looks at how Iranian dragons changed after the Mongol conquest of the region. It is also tangentially addressed by the other general sources, though they mostly focus on the origins of dragons, instead of how they have changed between their inception and the present day.

This question is important because there is a lack of scholarship focused primarily on how dragons have changed through time, at least beyond their ultimate origins, and the works that have addressed this have other focuses than dragons specifically, thus meaning it is a gap in modern knowledge. Furthermore, the sources which do focus specifically on dragons, such as the works of Blust, have what I deem to be major flaws in their conclusions and general theory (as discussed in the Literature Review) which mean that the flawed information which is provided by modern scholarship is something I would attempt to correct.

This most broad research question can be broken down into two narrower questions: "How have dragons in Asia changed over time?", and "How do dragons in Asia vary over area?".

Regarding the question about change over time, looking at primary sources has indicated that there are a number of different traditions of dragons in Asia, and as such it would only be appropriate to consider each tradition separately, rather than lumping them together based on geographical location in the way performed by Blust (2000:520, 2019:171, 2023:26-27). By separating them into different traditions, the resulting information becomes much more specific and meaningful, instead of the more general results provided by Blust.

The question of dragons varying over area also requires separating dragons by tradition in order to get more meaningful results. This is for much the same reasons as presented in the question about changes over time, being in order to get more meaningful results by providing a starting point from which change can be seen.

These two questions are important because they allow my work to correct what I consider to be a major mistake in modern scholarship regarding dragon depictions.

The other broad research question for this work is "To what extent do the changes in dragons in Asia demonstrate diffusion theory in practice?". This question is addressed by the general sources, though their hyperdiffusionist perspective makes the information they provide suspect at best. Regarding the sources that are more realistic in their approach to diffusion theory, the most notable one would be Kadoi's mentions of dragons throughout *Islamic Chinoiserie*, due to one of the focuses of her work being on the influence of East Asian dragons on Iran after the Mongol conquest and, to a lesser extent, the influence of Chinese dragons on Mongol depictions following their conquest of China.

To answer this question, the most suitable way, as demonstrated by Kadoi, is to look at the influence different traditions have had on each other, such as the East Asian tradition on the Indo-European tradition in Iran. This question can also be answered on a scale within a single tradition, by looking at how dragons vary between nearby regions.

This question is important due to the present perception of diffusion theory, which there seems to be a bias against due to the influence of hyperdiffusionism and accusations of racism (Jones, et al., 2011:10-15), to the point that a number of scholars refuse to even use the term “diffusion”, instead preferring to use “cultural transmission” (Jones, et al., 2011:20). Diffusion, though, is part of the reality of archaeology, and refusing to have anything to do with it leads to as many wrong conclusions as hyperdiffusionism leads to. A suitable modern approach would be to ignore hyperdiffusionist arguments, while also accepting that innovations can occur, no matter when, where, or by who, but while simultaneously accepting that diffusion and migration have and still do occur (Jones, et al., 2011:19-21). Through including this question in my work and basing the work itself on diffusion theory, I intend for this work to act as a support for this theory in the modern day, and to prove that it is sensible.

Linked to this question is the question of “To what extent can changes in dragon distributions over time be explained through diffusion theory?”. While this may sound almost identical to the previous question, there is a key difference: whereas the previous question asks about dragons demonstrating diffusion theory through their changes, this question instead focuses on using diffusion theory to explain the changes. An example of this would be, as Kadoi points out in *Islamic Chinoiserie*, Iranian dragons changing as a result of the Mongol conquest. The explanation for the change in this case is the Mongol conquest of Iran.

In terms of answering this question, this question will be addressed primarily by case studies 1 and 2 (Indo-European and Naga). This question is important because it demonstrates how diffusion theory can be used to explain why demonstratable changes occurred in the past.

Similar to that question is the research question of “To what extent did the Indo-European tradition influence the development of dragon depictions in China?”, which will primarily be answered through case study 2 (Naga), though case study 1 will also be of value for showing the reverse occurring, as demonstrated through Kadoi’s work. For investigating changes between pre- and post-Buddhism dragons in China, case study 3 will be used, owing to its focus on pre-Buddhist Chinese dragons, with links to the 2022 article by Tu et al. due to it containing information on potentially the earliest known Chinese dragon. Wessing’s 2006 article highlights the influence of combined Indo-European and Naga traditions on south-east Asia, through the spread of religions from the Indian subcontinent, and a similar spread is known to have occurred with China via the transmission of Buddhism into the region. This question therefore focuses on the extent to which the spread of Buddhism influenced Chinese dragon depictions.

This question is important because it investigates the common idea of there being a major divide between western and eastern dragons, and examines the extent to which this is a misconception.

Another of the smaller questions this work attempts to answer is “Where is there a general lack of information on Asian dragons?”. This question, drawing on Roger Blench’s 2008 presentation to the European Association of Southeast Asian Archaeologists, and Laufer & Pelliot’s 1938 article mentioning the *yin shu*, is directly addressed by my fourth case study, which focuses on where information is lacking.

This question is important for the overall academic value of this work as it highlights the areas where we know little, thus giving a direction as to where future research should be conducted.

Finally, perhaps the most basic question of this work, which focuses on dragons from a number of different cultural traditions, is “Can we consider ‘dragons’ from each of the different origin points to be the same sort of mythical creature?”. This question, which draws on all the general sources discussed in the Literature Review, as well as case studies 2 (Nagas) and 3 (East Asian), aims to discuss whether we can divide the dragons of each tradition into distinct mythical entities separate from each other, or whether dragons across Asia act as more of a continuum, slowly changing as one goes from west to east, north to south. This is a question that has come up in many discussions I have had about this work, with opinions being very mixed.

This is important for wider scholarship regarding depictions of dragons, as current scholarship, primarily highlighted by Blust (2000:520, 2019:171, 2023:26-27), tends to group them all under the general category of “dragon”, as well as considering creatures that most would not consider to be dragons at all within that category (2023:35, 112), and just does not really question whether they are distinct types of mythical creatures, whereas Gould, writing in 1886, clearly separated sea serpents from dragons, and also separates eastern and western dragons, though also claiming through his hyperdiffusionist perspective that they probably shared a common origin (1886:258). As such, there is no consensus at all regarding this, or even what, exactly, a dragon is.

## MATERIALS

The materials for this project can be divided into two categories: archaeological data, and historical data. The archaeological data is in the form of artefacts, while the historical data comes from historical documents and texts about mythology, as well as religious texts.

From these primary sources, data was collected about various aspects of the appearance and perception of the particular dragon(s) depicted, along with the culture, location, and creation date of the source, all of which were also written down.

Due to the sheer number of dragon depictions being more than is practical to analyse for a work such as this, the decision was made to instead focus on particular case studies, using the data collected to support these and the conclusions based on them. This, as far as I am concerned, makes this work valid as, instead of focusing on analysing every existing representation of dragons in Asia, the analysis is instead going to be more focused and meaningful.

### Limitations

For the data about physical appearance, the data is limited in different ways by the artefact and literature sources. For the artefacts, the main limitation for the data is the quality of craftsmanship. This is a major factor for their current states of preservation, with higher quality objects generally being preserved better, allowing more data to be collected from them, but this also applies to their original construction as well. The main issue with their initial construction is the potential for poorer-quality objects having a higher level of simplification compared to higher quality objects. This can potentially be seen in some of the early artefacts from China, with some having no legs, while others have one or two pairs.

Another issue with the artefact sources is some being limited in how much of a dragon is depicted. Most depict the head of a dragon, but from the neck downwards, numbers of depictions become increasingly limited. This means that there is reduced data available for these body parts, meaning there are fewer dragon representations available for certain forms of analysis.

A third issue with artefact sources is the colouration. Colour is a key part of dragon depictions, with Blust listing it as a notable trait of dragons and using it to support his theory about dragons being linked to rainbows (2022:104-105). For many of the artefact sources though, as far as they show in the present, the dragons tend to just have the colouration of the substance the artefact is made of. Whether this is because individual artefacts did not have additional colouration when initially produced, or if they had additional colouration initially but have since lost it, the artefacts that do not clearly show the colouration of the dragon they are depicting reduce the effectiveness of this part of the depiction analysis.

Finally, while artefact sources are still very useful, particularly for the physical traits of the dragon(s) represented, they tend to fall short on the contextual side of things. Unless a depiction shows a dragon being fought by a known individual, or is a dragon with specific physical traits that let it be identified as a particular cultural

figure, it is difficult to ascertain the dragon's identity, meaning the etymology of their name cannot be deduced, nor is it generally possible to tell how the dragon was perceived by members of the culture its depiction originated from, either positively, negatively, or neutrally.

For the data from literary sources, they lack the issues mentioned above, but have their own particular problem: the only data available is what is written in the text. If a particular source says little more than something along the lines of "there was a dragon", it is much less useful for this work than one that gives a detailed physical description of the dragon. For the latter, the data can be tabulated and analysed properly, whereas with the former, while it can be listed as a data entry, it cannot be used for any sort of analysis of the dragon's "physical" depiction, just the more cultural side of it.

## METHODOLOGY

The methodology for my work will be different for each of the four case studies, due to the particular natures of each of them.

Case study 1 will be a qualitative discussion based on the depictions of the dragons in question.

To begin with, the main dragon for this case study, the Avestan Azi Dahaka, will be discussed in terms of his physical features, as well as traits associated with him, with the *Kordeh Avesta* being the main source used. Once this is done, I will discuss the reconstructions of \*ng<sup>w</sup>hi by both Lincoln (1976) and West (2007) in the same way, and then discuss the differences and similarities between the depictions of the dragons. Afterwards, this method will be followed for the reflexes (dragons whose origins can be traced back directly to an earlier figure) of Azi Dahaka, with both the physical features and associations discussed, followed by a comparative discussion. Once this is done, Ahi/Vritra, a Vedic dragon with a relatively recent common origin with Azi Dahaka, will also be analysed and compared to Azi Dahaka to show differences between two contemporary dragons with a common origin but separated geographically, instead of the purely temporal discussion of the others. It will also allow for traits associated with \*Aghi, the common origin of both Azi Dahaka and Vritra, to be determined from the comparison, by looking at the common features shared by Azi Dahaka and Ahi/Vritra.

Case study 2 will be examined in much the same way as case study one; through a qualitative examination of the dragons this case study focuses on. Unlike the first case study, in which it is a single dragon being examined primarily through time, this case study focuses on a group of dragons, the *nagarajas*, and how they have changed primarily across geographical location, though change over time is still a major factor.

Case study 3, unlike the first two, will be a quantitative analysis of pre-Han Dynasty Chinese dragons. These dragons were chosen because, with the spread of Buddhism into China during the Han Dynasty, elements of the Naga and Indo-European traditions were introduced into China, which is discussed within case study 2. To give an idea of the dragons of the East Asian tradition before external influences from other parts of Eurasia influenced them, it is therefore the pre-Han dragons of China that are most suitable for study in my opinion, and thus they are the ones that have been chosen.

The dataset used for case study 3 is separate from that used otherwise due to the quantitative nature of this case study meaning it focuses primarily on physical attributes and, in contrast to the previous case studies, focuses little on associations with these dragons, owing to how these associations are rarely, if at all, represented by the material culture. Furthermore, unlike case study 2, which focused on change over location, this case study is more similar to case study 1 in that it instead examines change over time within a single location (China). The dataset is a sample of dragon depictions within the physical archaeological record, with a focus on jade and bronze works, though some carved clay bricks from the Qin Dynasty and a painting from the Warring States period have also been included.

The time span this analysis focuses on begins at 1600 BCE (the beginning of the Shang Dynasty), and ends in 206 BCE (end of the Qin Dynasty). This has been split into lengths of 50 years, ending in the year 200 BCE. Each dragon representation has been assigned a value of “1”, which has then been divided amongst the years of its calculated period of manufacture. By doing this for all the dragon representations, this gives an averaged number of representations for each 50 year period. From these averaged numbers of representations over 50 year periods, a descriptive analysis of the changes of various features over the period in question has been performed, the nature of the results preventing tests of significance from being performed.

Beyond these dragons, this case study also features a qualitative discussion of a Neolithic depiction of a dragon from the Hongshan culture, as well as the potential dragon representation from Chahai, which may be the oldest known dragon depiction of this tradition. These two have been focused on separately due to their dating putting them far beyond the timespan of the other depictions in the dataset used for this case study.

Case study 4 focuses, instead of on what we do know, on what we do not due to a lack of available information.

This will primarily be a qualitative discussion in the vein of case studies 1 and 2 based on the sources available. The main dragon of this case study is Yamata no Orochi of Japanese mythology who, despite being a dragon of the Indo-European tradition, is something of an anomaly as to how he appeared in Japanese mythology before Buddhism reached the islands. The case study will trace what we know about the origins of Orochi, and where we are unable to learn more.

## RESULTS

### Case Study 1

Case Study 1 focuses on the Indo-European tradition. To examine how dragons of the Indo-European tradition have changed over time and geographical area, the case study I am using is Azi Dahaka from Iranian mythology.

To properly understand how Azi Dahaka can demonstrate changes through time and area, we shall look both to Azi Dahaka's origin, his later depictions, and the depictions of Ahi/Vritra, a dragon from a neighbouring region who Azi Dahaka shared a relatively recent common origin with (\*Aghi (Lincoln, 1976:52)).

Azi Dahaka is described in the *Kordeh Avesta* as being a serpent with three mouths and six eyes, as well as three bodies, being the most powerful druj/drukh (evil spirit) created by Anra Mainyu (Bleek, 1864:55), and is later slain by the hero Thraetaona (Bleek, 1864:108). This description suggests a wyrm (category 4 dragon) with three heads and three tails. As well as his physical appearance being described, it is made clear through him being classed as a druj/drukh, and the most powerful one at that, that he was considered to be a notably malevolent entity. This is further supported by the description of him having been created by Anra Mainyu for the sole purpose of destroying purity in the world (Bleek, 1864:55), highlighting that he is the opposite of what society aimed for. He is also described as possessing "a thousand strengths" (Bleek, 1864:35, 55, 108), which is suggestive of intelligence, as the "strengths" mentioned most likely refer to skills he is competent at, thus suggesting intellectual power, as well as the impression of physical power that his physical description invokes. Overall, the *Kordeh Avesta* paints an image of an intelligent, powerful, malevolent category 4 dragon with three heads and three tails, and thus this is the image we have for the Avestan form of this case study.

The origin of Azi Dahaka can be traced back to the Proto-Indo-European dragon \*ng<sup>w</sup>hi, whose identity has been reconstructed by Bruce Lincoln, as being a three-headed serpent, identified with the people living in the areas that the PIE people were moving into, who may have stolen cattle from \*Trito- or someone close to him (Mallory & Adams (2006:437) do not seem convinced by this argument), who was later defeated by \*Trito-, who, if the cattle were stolen, reclaimed the cattle (1976:58). Alternatively, the work of West indicates that, instead of stealing cattle, \*ng<sup>w</sup>hi blocked off the world's waters, and it was a later association between these waters and the cattle that created the link between the two in the story, and was later killed by the storm god (2007:255-259) \*Perkwunos (2007:240). He also identifies \*ng<sup>w</sup>hi as a water serpent (2007:255). West's discussion of possible parts of the conflict between \*ng<sup>w</sup>hi and his slayer indicates that \*ng<sup>w</sup>hi was burned, had his heads smashed with a blunt weapon, and was then left to lie in the waters once they had been freed (2007:256-259). This, therefore, shows potential weaknesses of the serpent.

Regardless of whether \*ng<sup>w</sup>hi stole \*Trito-'s cattle, or \*Perkwunos' waters, the overall depiction is one of a thief. This gives an impression of both intelligence and malevolence, as well as power, particularly in West's reconstruction in which he

steals the world's waters (2007:255-259). The intelligence comes from the fact that he is considered able to steal things and keep what he has stolen in a specific location, likely a cave or other source of water. While this behaviour can be considered animalistic in the case of the cattle, the fact that they are not depicted in the reconstruction as having been consumed by the dragon, instead merely kept, suggests this is a deliberate malevolent action of thievery, similar to the act of stealing the world's waters. The impression of malevolence comes from the depiction of, instead of helping or remaining neutral, \*ṅwhi actively wronging others and bringing suffering. Furthermore, Lincoln's claim that \*ṅwhi represents native people in regions the Proto-Indo-Europeans were expanding to (1976:58) indicates that \*ṅwhi was to be considered an enemy of the Proto-Indo-European people, who were represented in the myth by either their hero or their god, and thus from their perspective \*ṅwhi was always going to be a malevolent force due to his "otherness". In West's version, where \*ṅwhi blocks off the world's waters (2007:255), an impression of power is also created, by having \*ṅwhi be presented as being capable of rivalling the gods' strength, requiring his defeat in a physical confrontation to release the waters. This, if anything, suggests that \*ṅwhi's might was primarily through supernatural means instead of physical ones, though on the other hand the storm god, a god known for violence (2007:238-239), being the one to defeat him does suggest that \*ṅwhi was physically powerful to a degree as well since it was this particular god who had to defeat him.

Physically, what can be gleaned from the reconstructions of \*ṅwhi is that he was a three-headed serpentine dragon who may have had an association with water, thus indicating categories 4 and possibly 1.

What can be seen from this is that, with the Proto-Indo-European people leaving their homeland and some of them heading to what is now Iran, the dragon underwent both physical changes and changes in associations when they eventually became Azi Dahaka, though there were still a number of similarities:

Physically, the main change is Avestan Azi Dahaka gaining three tails instead of one (Bleek, 1864:55) (Lincoln, 1976:58). The key similarities are that they are both still considered category 4 dragons due to them being understood to have been snake-like dragons with no limbs, and they both had three heads (Bleek, 1864:55) (Lincoln, 1976:58).

In terms of their associations, the key difference is that Avestan Azi Dahaka seems to have lost his association with water and instead became more associated with urban society though his purpose of corrupting purity (Bleek, 1864:55) (West, 2007:255). A key similarity between the depictions, though, is that both are depicted as being intelligent, with their non-physical abilities being key parts of their depictions. Azi Dahaka is repeatedly stated as having "a thousand strengths" (Bleek, 1864:35, 55, 108) which can be interpreted as skills, while \*ṅwhi may have had greater supernatural power over water than the storm god as demonstrated by the theft of the world's water from him (West, 2007:255), which, while not directly linked to skills in most regards, can be so if the skills are assumed to be of a more

supernatural nature. Regardless of this assumption, there is the similarity in both being associated with non-physical power to an extent.

After his appearance in the Avestan texts, Azi Dahaka undergoes two main divergent evolutions in Iran: the character himself becoming more human, and Azi Dahaka serving as the prototype of other Iranian dragons, known as Azhdaha. Both were present in Iranian folklore by the late 10<sup>th</sup> century, when Ferdowsi began writing his *Shahnameh*, between approximately 750 and 325 years after the *Kordeh Avesta* was written down. Of these two, we shall begin with Zakhak, the depiction of the character of Azi Dahaka during the lifetime of Ferdowsi.

Zakhak, also known as Bivarasp, a word meaning “ten thousand horses”, is initially depicted as a human. Originally a prince from Arabia, the demon Eblis appeared before him and tempted him into serving him in return for his father’s throne (Ferdowsi & Davis, 2016:9-10). He then started grooming Zakhak into a blood-thirsty, cannibalistic emperor, and kissed him on the shoulders, causing a black snake head to grow from each one (Ferdowsi & Davis, 2016:10-11) Zakhak then took over Iran (Ferdowsi & Davis, 2016:12-13). He was later defeated by Feraydun, who imprisoned him within Mount Damavand (Ferdowsi & Davis, 2016:26-27).

Physically, Zakhak is very different to the Avestan Azi Dahaka. The most notable difference is that, instead of being a three-headed, three-tailed serpent, he is now a man with two additional snake heads. A potential reason for this change is based on the etymology of the name “Dahaka”, which may come from the Sakan word *Daha*, meaning “man/manlike”. Thus, a possible explanation for the change could be due to the possible etymology influencing how he was depicted during Ferdowsi’s lifetime. Like Azi Dahaka, though, Zakhak is depicted as having three heads, of which two are snake-like, and the third is also said at one point to be snake-like (Ferdowsi & Davis, 2016:12). This, therefore, shows a notable similarity between Azi Dahaka and Zakhak, beyond the context of the story. Overall, the depiction of Zakhak is one of a category 3 hybrid dragon, owing to his depiction as a human with draconic features, contrasting with Azi Dahaka’s depiction as a category 4 serpentine dragon.

Another major difference in their depictions is their fate. Azi Dahaka is stated to have been slain by Thraetaona (Bleek, 1864:108), whereas Zakhak is not killed by Feraydun, only mutilated and bound within Mount Damavand (Ferdowsi & Davis, 2016:25-27). West supplies a possible explanation for this change in his work by suggesting that in the original Proto-Indo-European story, \**ng<sup>w</sup>hi* was not actually slain, but merely defeated and imprisoned underwater (2007:259). The imprisonment of Zakhak could potentially be a reflex of this aspect of the original myth, with the change from underwater to in a mountain seemingly being due to the separation of Azi Dahaka from the association with water. The change from the depiction in the *Kordeh Avesta* to the *Shahnameh*, a return to a potentially earlier feature of the legend, could be indicative of the influence of other serpent stories descended from the Proto-Indo-European origin, wherein dragons are imprisoned instead of being killed, something which will be discussed in greater length in the discussion about Ahi/Vritra.

In terms of associations, there are also a number of differences. The first one mentioned in the *Shahnameh* is that Zahhak is an Arab Prince (Ferdowsi & Davis, 2016:9). One potential explanation for this comes back to the initial portrayal of \*ng<sup>w</sup>hi as representing the enemy of the Proto-Indo-European people (Lincoln, 1976:58). The *Shahnameh* is a poetic retelling of the mythical history of the Iranian people until the Arab conquest of Iran. Though Ferdowsi himself was a Muslim, with his work containing much Muslim terminology, the content of his epic is primarily Zoroastrian in nature, and the final chapter in particular of his work, that focusing on the reign of Yazdegerd III, shows a strong anti-Arab bias (Ferdowsi & Davis, 2016:940-961). Therefore, even though \*ng<sup>w</sup>hi seemingly represented people who were to be conquered, and the Arabs are the conquerors, they were both considered “the enemy” by the culture the story belongs to, thus showing a similarity. This can also be linked to Azi Dahaka as well, due to his presentation as the most prominent of the druja/drukhs making him one of the spiritual enemies of Zoroastrianism. Thus, Zahhak being written in as an Arab prince is shown to be an evolution of Azi Dahaka being the spiritual foe of the Iranian People. The change can also therefore be linked to the Arab Conquest of Iran due to the depiction.

Another association Zahhak has is that of being a conqueror, due to his depiction of taking over Iran when the previous king proved unfit to rule (Ferdowsi & Davis, 2016:12), and later being mentioned as having taken over seven kingdoms (Ferdowsi & Davis, 2016:19). This can be linked to Azi Dahaka’s depiction in the *Kordeh Avesta* as having collaborators and profiteers (Bleek, 1864:35), which creates an impression of Azi Dahaka trying to increase his influence at the very least. It also contrasts with the reconstructed depiction of \*ng<sup>w</sup>hi, who was representative of the conquered (Lincoln, 1976:58). Together, though, it shows an evolutionary progression from conquered, to gaining influence, to conqueror, which can be seen as a natural progression instead of as a transformation via inversion, and may, as has been discussed in the association of Zahhak with Arabia, have arisen due to conflicts with other nations.

A key way the depiction of Zahhak differs from that of Azi Dahaka is through their interactions with Iblis/Aṅra Mainyu. Zahhak is depicted as being repeatedly manipulated and ultimately groomed by Iblis, transforming him from an (admittedly already evil) prince into an outright monster (Ferdowsi & Davis, 2016:9-13), whereas Azi Dahaka is simply stated to have been created by Aṅra Mainyu for a specific purpose, and is seemingly being left to fulfil this purpose according to his own devices (Bleek, 1864:55). This therefore makes Zahhak seem, on a certain level, as being weaker than Azi Dahaka due to him needing help to gain power and, possibly, less outright evil due to him initially being manipulated into doing deeds which Ferdowsi describes as taboo (Ferdowsi & Davis, 2016:10), instead of doing them even initially of his own volition.

Finally, there is a link between the two representations of this dragon in the form of wealth. In the *Kordeh Avesta*, Azi Dahaka made a sacrifice of “a hundred male horses, a thousand cows, and ten thousand small cattle” to Ardvî-çûra as part of a request to have the seven Kareshvares emptied of men (Bleek, 1864:34), and in the *Shahnameh*, Zahhak is known as Bivarasp, meaning “ten thousand horses”

(Ferdowsi & Davis, 2016:9). This shows that both possessed a great number of animal possessions, with Lincoln noting in particular that cattle were what the early Indo-European economies likely revolved around (1976:62-63), thus highlighting Azi Dahaka's wealth in both these depictions. Whereas \*ṅ<sup>w</sup>hi is depicted by Lincoln as having acquired his wealth through thievery (1976:62), Azi Dahaka is depicted as acquiring wealth through human agents (Bleek, 1864:35), and Zahhak's depiction begins with him already owning them, with a later statement revealing that his father gave him all the wealth he desired (Ferdowsi & Davis, 2016:9-10). Though the means of having acquired the wealth are different for each of the three dragons, the universal is that they acquired wealth in the form of animals from humans. The different types of animals in the depictions likely are representative of the animals considered to be of the greatest importance at the times the different primary sources were composed.

Similar to Zahhak is the Armenian Azhdahak/Ašdahak. He was, in most regards, considered to be mostly identical to Zahhak, except that he was identified with the Median king Astyages (\*Aršti-vaiga) (Shahbazi, 2017:133). The identification seems to be due to both his characterisation in histories being similar to Zahhak through being a tyrant and having nightmares that influenced his behaviour, but also because he was a Mede, which became *Mār* in Armenian, which was identical to the word for snake in Persian, hence further linking him to the dragon (Shahbazi, 2017:133). As well as identifying him with Astyages, his killer became the Armenian hero Tigran the Great, who is made into an ally of Cyrus the Great (the historical slayer of Astyages) so the slaying could be attributed to him (Shahbazi, 2017:133).

Owing to the names of Zahhak, Azhdahak, and Azi Dahaka, and the features of their myths, it would seem that, instead of the depiction of Azhdahak evolving from that of Zahhak, Azhdahak and Zahhak diverged from a common origin sometime after the Avestan depiction of Azi Dahaka, with Shahbazi identifying an Iranian version with the draconic king being Ažidahāg and his slayer being Frēdōn as the common origin of the two (2017:132-133). In terms of both physical features and most associations, they are all-but identical. The main difference is that Azhdahak is depicted as being Iranian instead of Arabic. This is likely to be for much the same reason as Zahhak was likely depicted as being Arabic in the first place: due to the many times Iran conquered Armenia, it was likely that the concept of "enemy" was associated with them in Armenia, instead of with the Arabs, thus the dragon was made into an Iranian.

Aside from Zahhak and Azhdahak, Azi Dahaka also has reflexes in the form of the Azhdaha, the generic dragons from Iranian mythology. These dragons are described as being the size of mountains, with horns the size of tree branches. They have long, stringy hair, glowing red eyes the size of wagon wheels, a pair of tusks as long as a man's arm, and a long black tongue. They have eight legs, though they are often said to prefer to slither instead of walking, and they have scales. They are poisonous, with poison seeping from their nose and tail. They are also generally depicted as having little, if anything to do with water, and they are generally depicted as living in arid regions (Skjærø, et al., 2011). In the *Shahnameh*, they are also mentioned

throughout the work as being akin to wild animals, such as lions, who attack travellers.

Physically, the key differences between the Azhdaha and Azi Dahaka are the Azhdaha possessing legs and other, more mammalian features such as branch-like horns (similar to those of a deer) and hair, as well as them only having one head. The *Encyclopaedia Iranica* suggests that these features, combined with a few of them becoming associated with rivers and the sea, indicates influence from the area that is now modern Iraq (Skjærvø, et al., 2011). As



Figure 1 Mesopotamian Mushussu from the Ishtar Gate (Staatliche Museen zu Berlin, 2021)

Figure 1 shows, arguably the most well-known Mesopotamian dragon, the *Mushussu* (red/fierce serpent),

is unlike most other dragons throughout the world in that, instead of looking like a reptile with mammalian and avian features, they are more like mammals with reptilian and avian features (Blust, 2023:15). They have the general body shape of a big cat, with the back feet of a bird, the scales, neck and head of a snake, the mane of a horse, and horns from various other animals. From what can be seen in this image, and in the description from the *Encyclopaedia Iranica*, which draws on early Iranian texts, it is certainly a distinct possibility that Azhdahas gained these mammalian features and, in some cases, an association with water from Mesopotamian influence. This is further supported by Sassanian dragon representations, such as Figure 2, which are visually reminiscent of the *Mushussu*, being largely mammals with avian and reptilian features. This therefore shows potential diffusion from



Figure 2 Sassanian Dragon from near the River Helmand, dated to the 3rd century CE (British Museum, 2024)

Mesopotamia to the Sassanid Empire, and its impact on later representations of dragons in the

region that empire previously covered. Kadoi mentions that in at least one illustrated copy of the *Shahnameh*, Azhdahas are depicted in much the same way as the dragon shown in Figure 2, further supporting the Mesopotamian influence (2009:204).

Overall, these early medieval Azhdahas can be considered to be category 2 dragons, since they do not necessarily have an association with water, lack wings, possess numerous limbs, and have horns. The most notable reason for them being considered to be category 2 dragons is because they are often considered in the *Shahnameh*

alongside lions as a type of wild animal. Those depicted as living in rivers or in the sea can also be considered category 1 dragons, or sea serpents.

Azhdahas later underwent a physical change following the Mongol conquest of Iran. As described by Kadoi, Chinese dragons became increasingly popular on Iranian textiles after the Mongol invasion (2009:25), as well as on Iranian ceramics (2009:50). As can be seen in Figure 3, these later Azdahas have a strong resemblance to typical Eastern (category 5) dragons. Aside from their appearance, these Azdahas are depicted in much the same way as the earlier ones, appearing in the same legends and so forth.



Figure 3 Azhdaha image dating to c. 1560 CE. (LACMA, 2021)

The associations with these dragons are the same owing to the change being predominantly a physical one, though Kadoi mentions at least one example where an Azdaha is visually presented as being non-threatening (2009:208). The non-threatening dragon can be interpreted as influence from the East Asian tradition of dragons due to a lower proportion of those having an outwardly negative portrayal than dragons from most other traditions considered in this work (Chung, 1998:135).

Physically, these later Azhdahas are artistically represented as being considerably smaller than the mountain-sized Azhdahas from earlier medieval Iranian depictions (Skjærvø, et al., 2011), and possessing fewer legs. They still have branching horns and hair, though this is in a style more typical for a dragon of the East Asian tradition, making them comfortably category 5 dragons. They are also physically represented as being wreathed in flames, as shown in Figure 3, while the *Shahnameh* generally depicts them as breathing it instead. Kadoi explicitly mentions this as having been adapted from Chinese Buddhist depictions of dragons (2006:204). As such, one can safely attribute this change occurring throughout Iran, and not just in the regions closest to China, to being a result of the Mongol conquest of Iran.

The final dragon who will be considered for this case study is the Vedic Ahi, also known as Vritra (Unknown, 1975:29). Ahi and Azi Dahaka share the common origin of the Proto-Indo-Iranian dragon \*Aghi (Lincoln, 1976:52), and thus Ahi can be compared to Azi Dahaka for this case study to show how variation occurred from their common origin. In order to represent this difference properly, I will be drawing on the *Rig Veda*, one of the earliest known sources to mention Ahi/Vritra.

In the *Rig Veda*, Vritra is described as the “firstborn of dragons” (Anonymous & Doniger, 1981:149), as well as being “shoulderless... like the trunk of a tree whose branches have been loped off by an axe,” (Anonymous & Doniger, 1981:150). This provides two major pieces of information about Vritra: firstly, that he was not the only dragon in Vedic mythology, though he was the oldest and, implicitly, the strongest, and secondly, gives details about Vritra’s physical appearance and what happened during the battle. The physical description of Vritra suggests that Vritra

originally had limbs, and that these were lost in his battle against Indra. Another indication of Vritra's physical features is given in the description of Vritra's defeat, in which it is stated that the sun, sky, and dawn were brought forth into the world (Anonymous & Doniger, 1981:149). Assuming this is to be taken in the same way Lincoln suggests in his description of the death of \*Yemo (1976:42), and is intended in a similar way as described in the *Enuma Elish* with the butchering of Tiamat (Stephany, 2014:29, 33), it is therefore given that Vritra was of immense size, though this is otherwise not a major feature of the depiction. Furthermore, Vritra is also described as, after having his limbs cut off, continuing to fight against Vritra (Anonymous & Doniger, 1981:150), which potentially suggests a serpentine body capable of moving and being used to attack alongside his mouth. Finally, there is some ambiguity as to whether Vritra was truly killed or not as, despite the text mentioning repeatedly that he was slain by Indra, it also states that Vritra's broken body was covered by both the waters and the corpse of his mother, suggesting possible imprisonment and incapacitation instead of outright death (Anonymous & Doniger, 1981:150).

These physical features; a serpentine body, limbs, and great size, are suggestive of a category 5 eastern dragon, though not one of the East Asian tradition, though since the number of limbs are unknown and may only have been two, owing to the use of "shoulderless" (Anonymous & Doniger, 1981:150), which would instead result in Vritra being a category 9 lindworm. Despite the association with water though, I would not consider him to also be a category 1 sea serpent, owing to how, following the interpretation that Vritra survived the conflict with Indra, water is used to imprison him (Anonymous & Doniger, 1981:150), suggesting it hinders his movements instead of being what he moves through and while this could be attributed to the loss of limbs and breaking of his body, I would still argue that it being used to seal him away would support the idea that Vritra is not a sea serpent.

In terms of associations, Vritra bears a number of similarities to Azi Dahaka, though some differences are also present. Firstly, there is the association with evil. Just as Azi Dahaka was described as being a druj/drukh (Bleek, 1864:55), Vritra is counted amongst the sons of Dānu, whose children were considered a type of demon (Anonymous & Doniger, 1981:151). Thus showing a similarity between the two. Furthermore, there is the suggestion of power. While this is explicitly stated with Azi Dahaka, it is more implicit with Vritra. Vritra's description of being the first-born dragon (Anonymous & Doniger, 1981:149) seems to have been done specifically to mention that, by being older, he was more powerful than the rest. In addition to this, throughout the section of the *Rig Veda* about the hymns to Indra his status as the slayer of Vritra is repeatedly mentioned (Anonymous & Doniger, 1981:139-162), implying it to be a great feat that few others could hope to accomplish, thus indicating Vritra's power.

As well as being individually powerful, both Azi Dahaka and Vritra are mentioned as working with others. Like how Azi Dahaka's collaborators are mentioned in the *Korveh Avesta* (Bleek, 1864:35), Vritra seems to have, in an earlier version of the story alluded to in the *Rig Veda* at least, helpers in the form of the Paṇis. The Paṇis were a group who stole Indra's cattle and imprisoned them,

whereas Vritra stole the waters which are likened to the cattle (Anonymous & Doniger, 1981:149-151). Lincoln argues that the cattle theft and dragon stories were originally one and the same, and that the waters were originally cattle (1976:52), which therefore creates a link between Vritra and the Paṇis. As the term *Paṇis* refers to a group, it can thus be indicated that Vritra did not originally work alone, but had helpers in the common origin story of both his theft of the waters and the Paṇis' theft of the cattle.

Linked to this is the association of wealth with the dragon. As previously mentioned, Azi Dahaka had access to vast quantities of animals (Bleek, 1864:34), and Vritra gained control of the waters (Anonymous & Doniger, 1981:149), which are vital for the growth of crops, thus giving him control over the source of wealth of others. While Vritra's wealth is admittedly somewhat removed from the more direct economic power Azi Dahaka commanded, Vritra's waters can still be considered wealth due to the power they granted him over others, much as wealth grants power through exchange.

A difference between Azi Dahaka and Vritra is that the text is somewhat ambiguous as to whether or not Vritra was killed by Indra. Despite it being said repeatedly that Indra killed Vritra, the actual part of the text describing Vritra's fate merely says that his broken body was left underwater with the corpse of his mother on top of him (Anonymous & Doniger, 1981:150), and later the text even includes a section in a spell saying that sorcerers who seduce pure-hearted men or corrupt good men to evil should be taken by Soma and fed to Vritra (Anonymous & Doniger, 1981:293-294), which suggests that Vritra was still considered to be alive to some extent, whereas Azi Dahaka was explicitly killed by Thraetaona (Bleek, 1864:108). That Zahhak is later shown to be likewise imprisoned in later stories (Ferdowsi & Davis, 2016:25-27) indicates that this potential feature of Vritra surviving may have been an influence on the later source. The idea of Vritra being depicted as surviving is, as mentioned previously, supported by West (2007:259).

The aspect of the sun, sky, and dawn arising from the defeat of Vritra, as has already been mentioned, can be linked to the similar butchering of Tiamat in the *Enuma Elish* (Stephany, 2014:29, 33). This is not present in the stories of Azi Dahaka, nor is it occurring with a dragon part of the reconstructed Proto-Indo-European legend, as depicted by West or Lincoln. Lincoln, in fact, attributes the feature of being butchered to cause parts of existence to be created to \*Yemo, the brother of \*Trito- (1976:42). Owing to the uniqueness of this feature being attributed to a dragon in the context of Indo-Iranian mythology, I hypothesise that it was introduced into the Vedic culture from pre-Indo-European Mesopotamia, likely through the trade that originally occurred with the early, pre-Indo-Aryan cultures of the northern Indian subcontinent (Gangal et al., 2014:2), and that this was adopted by the Indo-Aryans when they entered the region and interacted with the locals. This therefore suggests a potential dragon origin point in Mesopotamia that was later subsumed by dragons from the Indo-European tradition, with a feature of the pre-Indo-European Mesopotamian dragons being that they were involved in the creation of the world. A separate Mesopotamian dragon origin is further supported by the unique

depictions of dragons such as the *Mushussu* (see Figure 1), which are notably different from contemporary Indo-European dragons.

What can be understood from this is that the divergence of Azi Dahaka and Ahi/Vritra from their common origin of \*Aghi created a number of differences between the two, though many similarities, particularly in terms of associations with them, remained, if somewhat changed by culture-specific factors.

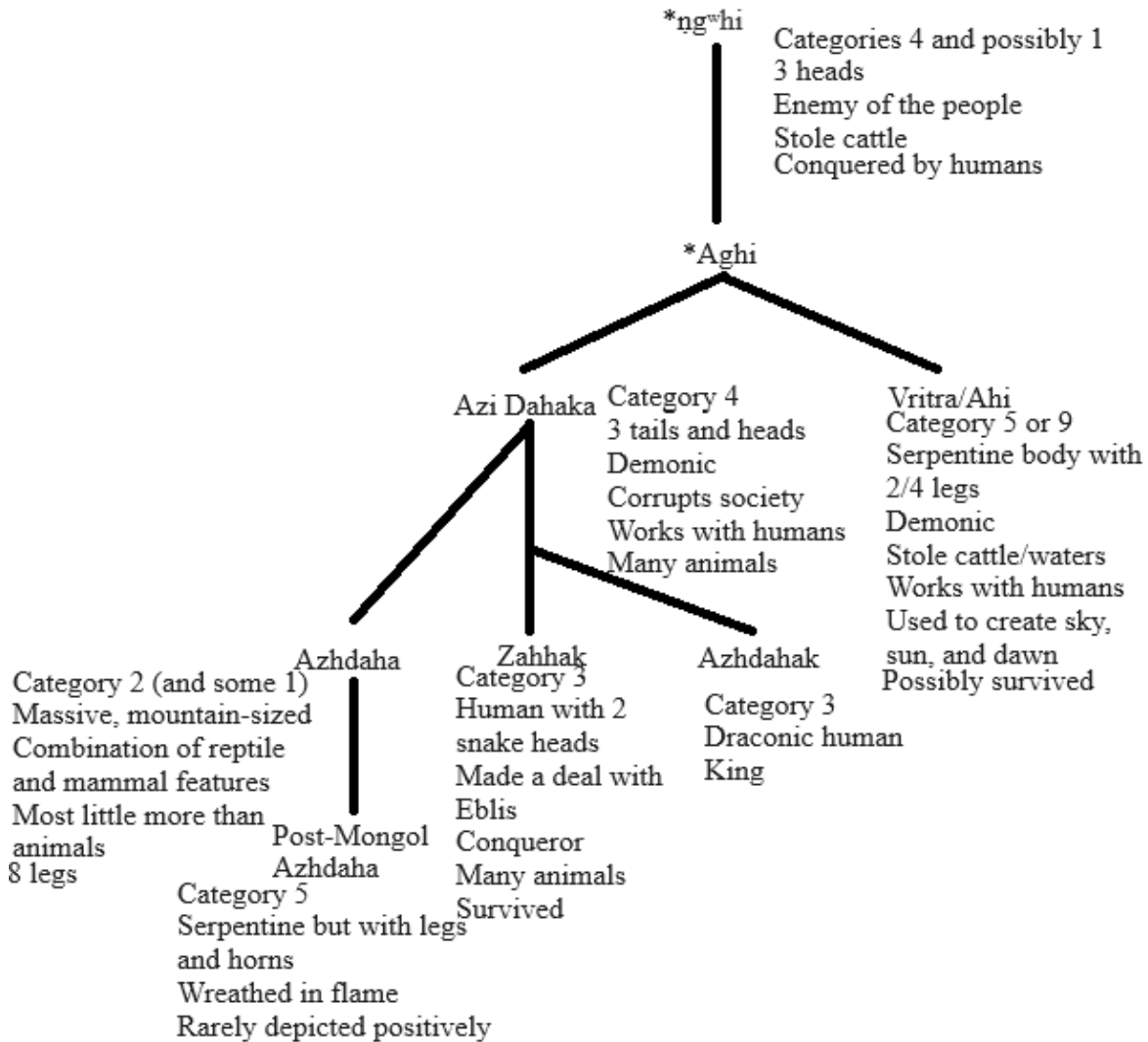


Figure 4 Chart showing major features of dragons in Case Study 1

What this all shows is that the line of dragons featuring Azi Dahaka has undergone many changes throughout history and, while geographically most (with the exception of \*ngwhi) are not too far from each other, even then there are a number of differences even between dragons of the same timeframe that share a common origin. Figure 4 shows major physical features as well as associations, and shows how they changed over time. In short, physically they went from multi-headed serpents to both serpentine dragons with limbs and a single head, or multi-headed humans. In terms of associations, in the Iranian line at least, they went from a thief representing conquered locals to both foreign tyrants and mythical animals. It is interesting to note

that \*Aghi was likely the first of this line to be considered demonic, seeing as both of his immediate reflexes are considered that way, but beyond the first generation of reflexes, they lose that association, becoming more normalised, with the greatest extent they can be considered demonic being that Zahhak made a deal with Eblis. \*Aghi was also probably the earliest to work with humans, something Azi Dahaka is stated to have done, and Vritra seems to have done in a version of the story pre-dating that in the *Rig Veda*, thus suggesting it is a feature inherited from their common origin.

## Case Study 2

Case study 2 focuses on the Naga tradition, originating in what is now Sri Lanka and southern India. Like how case study 1 focused on Azi Dahaka, this case study focuses on the *nagarajas*: the naga kings of Indic mythology. Unlike case study 1, which focused largely on a single geographical region and explored how dragons changed across time, case study 2 focuses on both time and geographical location to an equally large degree.

It is thought that the nagas originated as tribes native to Sri Lanka and southern India before the Indo-Aryan people made their way there, and that they likely worshipped cobras (Manogaran, 1987:21). By the time we get to the earliest written sources about nagas, though, they were already being depicted as serpentine, draconic people. In the *Ramayana*, the earliest versions of which were compiled between the 7<sup>th</sup> and 5<sup>th</sup> centuries BCE, the mother of the snakes is said to have been Surasā, a shapeshifter who lived in the sea between India and Lanka (Egenes & Reddy, 2016:227). The *Mahavamsa*, a work compiled in the 5<sup>th</sup> century CE from annals written from the 3<sup>rd</sup> century BCE, presents nagas as having lived on and around Sri Lanka before the Indo-Aryan Sinhalese arrived, with their first mention in the text being an inheritance crisis between Mahodara, the *nagaraja* ruler of the undersea naga kingdom, and his nephew, Culodara, another *nagaraja* who was the ruler of the naga kingdom on Mt. Kannavaddhamana (Mahanama & Geiger, 2018:7). Neither of these sources mention the most prominent *nagarajas* of Hindu and Buddhist mythologies, Takshaka, Vasuki, and Sesha, who this case study generally focuses on, instead focusing on separate *nagarajas* in the case of the *Mahavamsa*, but they do provide context for the later depictions of them. Both depictions represent them as being superhuman serpentine entities, with the *Ramayana*'s depiction giving the implication of them being both amphibious, due to their mother living underwater, and also demonic due to her shapeshifting into a rakshasa. This more monstrous depiction could be due to the perspective of the *Ramayana*'s composer, who is telling a tale about an Indian hero going to Lanka and killing the island's ruler, Ravana, with the naga therefore being grouped with the antagonists. In the *Mahavamsa*, the nagas are somewhat more humanised, despite still being reptilian people who have a kingdom under the sea. A number of *nagarajas* are mentioned in the text, but they are depicted as being *rajas* (kings) in the human sense of the word, being the rulers of the naga kingdoms. They are also depicted as getting involved in the same struggles faced by human rulers, such as inheritance issues and dealing with changes in their kingdom's main religion. This makes the Sri Lankan nagas into little more than snake-people.

For the most prominent *nagarajas*, they first appear in stories such as the *Mahābhārata* from further north in India, where they are depicted as the sons of Kadrū (and thus the cousins of Vritra from Case Study 1). With the possible exception of Sesha, due to his disgust with the other nagas, the nagas are depicted as gaining their forked tongues by licking the spot where the amṛta had rested after Indra removed it (Anonymous & Smith, 2009:7), and are otherwise depicted as being outwardly identical to snakes.

Takshaka, in his first appearance in the *Mahābhārata*, is depicted in a way reminiscent of the IE dragons from Case Study 1, with Takshaka stealing a pair of earrings from Uttānka, which Uttānka then has to reclaim (Anonymous & Smith, 2009:3-4). Later, Takshaka is used by Śamika to curse king Parikṣit to death, with Takshaka bribing a holy man capable of saving Parikṣit to go away so he could do his job (Anonymous & Smith, 2009:8), resulting in Parikṣit's son, Janamejaya, instituting mass sacrifices of nagas. Since Takshaka is the main target of Janamejaya, he goes to Indra to seek refuge. Indra is then summoned to the site of the sacrifices, and Takshaka is brought with him and the priests then prepare to sacrifice him. Astika, Takshaka's half-naga nephew, then has the sacrifices ended before Takshaka could be killed (Anonymous & Smith, 2009:9-10).

The first appearance of Vasuki in the *Mahābhārata* is in the myth of the gods acquiring the amṛta, where Vasuki is used as the rope which was used by the gods and asuras to churn the sea using Mt. Mandara (Anonymous & Smith, 2009:5). Later, Vasuki works to try to prevent a prophecy that the nagas would all be sacrificed by Janamejaya, and learns that his sister's son would end the sacrifices when only the wicked nagas were killed. He actively goes to confirm whether or not this is the case (Anonymous & Smith, 2009:7-8), and later arranges the marriage that would lead to the child being born. When his sister is left by her husband, he is shown to only be concerned about whether or not their child has been conceived (Anonymous & Smith, 2009:9). When the child, Astika, is grown up, the snake sacrifices begin, and Vasuki begins to grieve for his lost family. He then has Astika go before Janamejaya and praise him and the sacrifices, which results in Janamejaya offering Astika a boon, and Astika then asks to have the sacrifices ended (Anonymous & Smith, 2009:9-10).

Shesha is shown in the *Mahābhārata* as turning his back on his siblings and going to holy places to be austere due to his disgust with the wicked nagas. He is then granted a boon by Brahmā, and chooses dharma, asceticism, and a lack of passion. For this, Brahmā appointed Shesha to be the serpent on whose back the Earth rests (Anonymous & Smith, 2009:7).

Of these three, Takshaka seems to show the greatest amount of influence from the IE dragons, such as those discussed in Case Study 1, with his depiction as being a thief who a hero had to reclaim what was stolen from being a reflex of the story about the dragon stealing the waters (West, 2007:255) or cattle and the hero having to regain them (Lincoln, 1976:58), as well as being a dragon who fire was going to be used against, which is similar to the use of fire against Apophis (Faulkner, 1938:42) and other Indo-European dragons such as the Greek hydra (West, 2007:259). Vasuki and Shesha are further removed from the Indo-European dragon stories, and

presumably retain more details unique to the naga tradition due to not having these Indo-European features applying to them.

Like the Indo-European dragons, Takshaka is also depicted as wealthy, owing to the large amounts of treasure he needs to offer in order to bribe the holy man (Anonymous & Smith, 2009:8). This further strengthens the link between Takshaka's representation and the Indo-European dragon tradition.

They are also presented as being of great power, with Takshaka, for example, being able to reduce a tree to ash with his bite (Anonymous & Smith, 2009:8), and Shesha being able to support the entirety of the earth on his back (Anonymous & Smith, 2009:7), not to mention Vasuki having the ability to visit gods to get information (Anonymous & Smith, 2009:8). This depiction is in stark contrast to the *nagarajas* of the *Mahavamsa* who, aside from being able to breathe underwater, are otherwise depicted as being akin to serpentine humans, whereas the *nagarajas* of the *Mahābhārata* demonstrate god-like power.

There is also a difference in how each of the three are presented: Takshaka is presented as an agent of fate who, while being immoral in his act of thievery and bribing the holy man in the course of ensuring events play out as dictated to him by those with the power to do so, is still ultimately on the side of cosmic order by doing what he is told to do. This is supported by his friendship with Indra, one of the major Hindu deities. Vasuki is depicted as a more neutral actor, doing what he feels is necessary to protect his people and caring about little else, as shown when his sister came to him following her husband leaving her, and him only caring about whether or not she had conceived the child mentioned in the prophecy. Shesha, meanwhile, is shown in a much more positive light, being disgusted by the immoral actions of the other nagas and being rewarded for it. Overall, the three *nagarajas* are all depicted as being creatures of cosmic order, with each following a different form of order.

In terms of their physical features, the *nagarajas* are depicted in the *Mahābhārata* as being serpentine in form, having hatched from eggs, having forked tongues, lethal bites, and being specifically differentiated from lizards (Anonymous & Smith, 2009:4). Despite this, the sister of the *nagarajas* is shown to have married a human and given birth to a human child by him, suggesting at least some human-like physical features. As such, whereas the description of the nagas in the *Mahābhārata* would initially suggest a category 4 dragon, category 8 is more suitable for how nagas are depicted in this work.



Figure 5 Gandharan panel showing a naga feast (British Museum, 2024).

Remaining in the Indian subcontinent, naga depictions continue to have evolved. Figure 5 shows a panel from Gandhara (modern Pakistan and parts of western Afghanistan) dating to the 2<sup>nd</sup> or 3<sup>rd</sup> centuries CE. This representation shows regular nagas serving a *nagaraja* and his wife. The regular nagas are depicted as having a human form with an additional serpentine head, while the royal nagas are depicted as having six snake heads in addition to their overall human form, for a total of seven heads. While it is impossible to tell which of the *nagarajas* is meant to be depicted in this figure, it is likely one of the three key *nagarajas* of this case study.

This representation of the *nagaraja* shows a clear fusion of human and serpentine features, as well as the possession of multiple heads. The multiple heads can be interpreted as an Indo-European influence, due to dragons such as the Iranian Azi Dahaka having three heads, as discussed already. Their general depictions are reminiscent of Zahhak from case study 1, and as such are clear examples of category 3 dragons. Like their depiction in the *Mahavamsa*, these nagas are depicted in Figure 5 as being little more than humans with snake features in terms of their behaviour, due to this scene not being out of place in a depiction of a human royal feast. Thus, this shows a continuation of the naga tradition's depictions of dragons as people similar to humans. The number of heads being seven, though, is likely drawn from the Hindu tradition, owing to the number 7 representing the worlds in the universe in Hindu cosmology and the seas of the world, thus giving it an association linked to the entirety of existence, which highlights the supernatural nature of the nagas, in contrast to their otherwise human depictions, which fits with the representations of nagas both in the *Mahavamsa* and *Ramayana*.

In contrast to this notably human-like depiction of the *nagaraja*, depictions from the south-east Indian city of Amaravati from the 8<sup>th</sup> or 9<sup>th</sup> centuries at the very least show a very different physical depiction of a *nagaraja*. Figure 6 shows a *nagaraja*, likely Vasuki owing to the gem on the central head. Unlike the earlier depiction from Gandhara, this depiction shows a wholly serpentine dragon with seven heads, with the only signs of intelligence being that he wears a gemstone on his head and a piece of jewellery around the base of his necks.

This image shows nothing about the associations of this *nagaraja*, with the exception of wealth, which is highlighted by the gemstone he wears. This fits with the earlier depictions of the *nagarajas* from the *Mahābhārata*, particularly with Takshaka for being notable for the wealth he used to bribe the holy man (Anonymous & Smith, 2009:8).



Figure 6 Nagaraja from Amaravati (British Museum, 2024)

Aside from wealth, there are few other associations that can be gleaned from this representation. It can be taken that this naga is depicted as being of at least human intelligence due to him being shown to wear jewellery, such as the gemstone and the band around the base of his necks.

Beyond the associations, more can be said about this *nagaraja*'s physical depiction. Like the earlier Gandhara royal nagas (Figure 5), this *nagaraja* is shown to possess seven heads, thus creating the mystical association due to the number representing the entirety of spatial existence, thus providing a continuation of the mystic nature of nagas, despite their simultaneous depictions as being human-like.

The main difference between Figure 6 and the earlier depictions of nagas, is the wholly serpentine body. This creates a separation from humans not so present in the earlier depictions of nagas, which could potentially be linked to contemporary socio-political or religious changes within India. This depiction is certainly that of a category 4 dragon, owing to the wholly serpentine form with multiple heads, much like the early dragons of the Indo-European tradition.

In the *Lotus Sutra*, a key Buddhist text, the *nagarajas* Nanda, Upananda, Sâgara, Vasuki, Takshaka, Manasvin, Anavatapta, and Utpalaka are described as having come to the Buddha to hear him teaching (Anonymous & Kern, 1909:5). Monta and Roberts both link this episode from the *Lotus Sutra* to the creation of the idea of the *Wufang longwang* (five directional dragon kings) during the Sui and Tang Dynasties, after the *Lotus Sutra* was introduced to China while also accepting that the concept of the directional dragons existed at least as far back as the Chinese state of Wei, by linking the colours in the terminology and other associations with colours to features from the Buddhist texts (Monta, 2012:13-15) (Roberts, 2010:34). This shows a syncretism of nagas with Chinese *long*, as naga terminology, once translated into its Chinese equivalents, was applied to Chinese *long* as well as influencing the perception of these Chinese dragons, including their directional dragons.

Figure 7 shows a late Tang Dynasty representation of a dragon depicted amongst those coming to attend to the Maitreya Buddha. This dragon can be identified as a *longwang* due to it mirroring the earlier depiction from the *Lotus Sutra* of the *nagarajas* doing the same for the Gautama Buddha (Anonymous & Kern, 1909:5).



Figure 7 Dragon from a Tang representation of the Paradise of Maitreya (British Museum, 2024)

As can be clearly seen in Figure 7, the *longwang* being depicted is clearly a category 5 dragon, with the four legs, long, serpentine body, and horns. This can almost certainly be attributed to the idea that it was the concept of god-like dragon kings that was imported through Buddhism, rather than the physical appearance of the dragon. As case study 3 shows, the image of a *long* in China was more-or-less settled on from the Warring States period, before the introduction of Buddhism into China, hence increasing the likelihood of an adverse reaction to radical changes in

depictions of dragons, which making the dragons more similar to the serpentine nagas of Figure 6 and the *Mahābhārata* would likely result in. As such, Figure 7 supports the idea that Chinese Buddhists adopted the associations of the nagas, but not their physical forms for their depictions, instead using the physical forms of East Asian dragons already depicted in the region.

Aside from this physical difference from contemporary depictions of *nagarajas* such as Figure 6, as well as their shared origin with the *nagarajas* from sources such as the *Mahābhārata*, it can be assumed that the associations of these *longwangs* were fairly similar to those of the *nagarajas*, owing to the mirrored depiction of the *nagarajas* in the *Lotus Sutra* (Anonymous & Kern, 1909:5) and Figure 7. The *nagarajas* of the *Mahābhārata*, most of whom are explicitly mentioned in the *Lotus Sutra* as coming to listen to the Siddhartha Buddha (Anonymous & Kern, 1909:5), are shown to be god-like in power, and the Chinese *longwang* are shown to represent each of the cardinal directions, as well as the land in the centre of the world (Monta, 2012:15). This therefore supports the idea that the *longwang*, as depicted in Figure 7 at least, were essentially *nagarajas* that had become category 5 dragons.

This image of the Dragon King was brought from China to Korea, with Figure 8 being an example of a depiction from the Goryeo Dynasty. The dragon is identified as the blue dragon king due to the presence of the Black Tortoise, White Tiger, and Red Phoenix, known as the “Four Symbols”. This is part of a similar tradition to the one discussed above, but only one (two in China) of the supernatural entities associated with a direction is a dragon king, hence allowing the dragon to be identified. These beings, through their action and inaction in relation to each other, influence all aspects of human life in Taoist cosmology (Anonymous & Legge, 2020:346-347).

Physically, this dragon looks like a stylised example of a category 5 dragon, possessing a long, serpentine body with four legs and a head bearing the characteristics of a number of different animals.

In terms of associations, this dragon can be understood as being similar to the Chinese equivalent; the Blue Dragon of the East, one of the directional dragon kings, as well as one of the four sacred animals.

Aside from the identification of this dragon as a dragon king, there is nothing really to suggest much influence from the naga tradition with this dragon, its depiction otherwise being based on traditions that arose as part of the East Asian dragon tradition.



Figure 8 Goryeo Blue Dragon King (British Museum, 2024)

Aside from the identification with Chinese *long*, the *nagarajas* were also exported to South-East Asia. Figure 9 shows a depiction of five nagas (of which only three are visible) emerging from the mouth of a Makara, and was likely used as a surround for a Buddha image.

While the Makara itself is identified by Elliot Smith as a form of dragon (1919:88), the image of nagas emerging from their mouth is one of the ways they are commonly represented, and they do not seem to share a common origin with the Makara, the Makara likely being Indo-European due to its Vedic origin. This representation of the nagas being used as a surround for the Buddha, like with Figure 7, invokes the depiction of the *nagarajas* in the *Lotus Sutra* (Anonymous & Kern, 1909:5). Therefore, the nagas represented in Figure 9 can be identified as, at the bare minimum, being somewhat inspired by the depiction of the *nagarajas*.



Figure 9 Thai depiction of Nagarajas emerging from a Makara. (British Museum, 2024)

As is a problem with many artefactual depictions, there is a general lack of information that can be gleaned from them about ideas associated with the nagas depicted. The Makara, due to being the steed of Varuna, the water deity (Smith, 1919:88), could be used to signify the connection between the nagas emerging from it and water, highlighting their early depictions in the *Mahavamsa* and *Ramayana* as having the capacity to live underwater.

They are also associated with the Buddha due to this depiction being part of a surround of an image of him. Drawing on the *Lotus Sutra*'s depiction of the *nagarajas* attending the Buddha's lessons, they can be seen as being wise at the very least. While it is unknown if the nagas in this representation are meant to rule over other nagas as the *nagarajas* of the *Lotus Sutra* did, an assumption of power is still likely, due to their general depiction beyond Sri Lanka as having god-like power.

Physically, these dragons have a number of major differences from the other depictions of *nagarajas*, not to mention the depictions of the *longwang* from China.

In terms of their categorisation, they can be seen as being Category 1 and/or 4, as well as 2: 4 for their serpentine bodies with no real human parts to them, and 1 for the possible Makara metaphor for them living underwater. Their being placed in category 2 is due to the depictions of their faces, and is the same reason they do not fall under category 8 (nagas). Their faces are shown to be somewhat elephantine in nature due to their tusks and trunks. This could potentially be due to influence from the Makara, due to some Indonesian depictions showing it as being elephant-like (Smith, 1919:88). The cause of this for these nagas, and by extension the Indonesian Makaras, is unknown, and anything I could suggest as an explanation would be pure speculation.

These dragons are shown as being bearded, suggesting some influence from the East Asian dragon tradition, owing to those dragons having prominent beards. This influence could also be an explanation for the notably un-snake-like teeth these dragons are shown to possess, which are straight and triangular, instead of curved and thin. This therefore likely shows some form of diffusion from northern parts of East Asia to South East Asia.

Further examples of south-east Asian naga legends are given by Wessing. According to him, nagas are, generally, considered to be female dragons, and were associated with waters, subterranean spaces, and fertility. Wessing describes a Cambodian legend about a prince marrying a naga in the subterranean naga kingdom, before going on to found his own nation (2006:211). He also describes a Sumatran legend about how, with the death of a naga on Mt. Marapi, the island was greatly enlarged (2006:211). Finally, the conflict between Garuda and the nagas, as depicted in the *Mahābhārata*, is also given a reflex in south-east Asia, with Garuda becoming a mythical falcon/hornbill who fights with the nagas, with Garuda being a falcon in Java, while the hornbill form appears beyond Java and Bali. Notably, in the Garuda stories, Garuda is depicted with naga-like scales, and the nagas are given bird-like feathers (2006:211). Though, with the exception of the Garuda legends, little physical information is given, this is an interesting source for associations, as it shows associations in Cambodia with royalty, in Sumatra with both land and water, and in the Garuda legends with the sky as well.

Of these legends, the Cambodian one can be seen as being primarily of the naga tradition, since the naga is depicted in a similar way to the sister of the *nagarajas* in the *Mahābhārata*. The Garuda legends, in which Garuda also becomes a category 2 draconic hybrid, fit most strongly into the Indo-European tradition, though with heavy influence from the naga tradition, owing to the conflict between Garuda and the nagas being closely related to the legend of Indra and Vritra. Finally, the Sumatran legend is, most likely, originally of the Austronesian tradition, with the dragon being altered into a category 8 dragon as a result of the influence of the naga tradition.

What can be gathered from this overall is that, as the concept of nagas travelled further from their origin point of what is now Sri Lanka and southern India, they became associated with dragons of other traditions, and by the time they reached Korea, there was little remaining from the naga tradition save a title.

Starting off likely as a serpent-worshipping people, they entered mythology as serpent people with the ability to survive underwater. They were elevated to godlike beings in Northern India when they became associated with serpents from the Indo-European dragon tradition, with the *nagarajas* in question entering the Hindu mythical corpus as cousins of Vritra. The *nagarajas* are furthermore shown to have become multiheaded, a trait generally associated with Indo-European dragons derived from \*ng<sup>w</sup>hi, with those in the west becoming humans with additional serpent heads similar to Zahhak, whereas those in the east became multi-headed serpents. Buddhism introduced these dragons to China and later Korea, where they were identified with the dragons of the local tradition, and ended up adopting their appearances while keeping many of their earlier associations as *nagarajas*. They also became associated with spatial directions, and could be considered true deities. By this point, though, they had lost their original names, and it would be a stretch to identify the dragons from original legends about the naga with the much later East Asian dragon kings.

As well as being spread to China, these dragons were also spread to South-East Asia, where they seem to have retained many of their earlier features, including general form and their mythic associations, but they do seem to have lost their human aspect and have become more monstrous than most other dragons of this tradition before the 8<sup>th</sup> and 9<sup>th</sup> centuries.

### Case Study 3

This case study is more quantitative in nature than the previous two, mostly qualitative discussions. It is going to be divided into two parts. The second part is a full quantitative analysis of a dataset of 182 pre-Han Dynasty Chinese dragon depictions. The first part focuses on a single one of those 182 depictions dated to Neolithic China. The reason this one is being considered separately is because, owing to the long span of Neolithic cultures in China, it makes an all-but negligible impact on the data with the exception of making it visually more difficult to express on a graph. As such, that one depiction will be briefly considered separately. As well as that depiction, the possible dragon representation from Chahai will also be discussed due to it being the oldest known possible representation of a dragon in not only China, but the world as a whole.

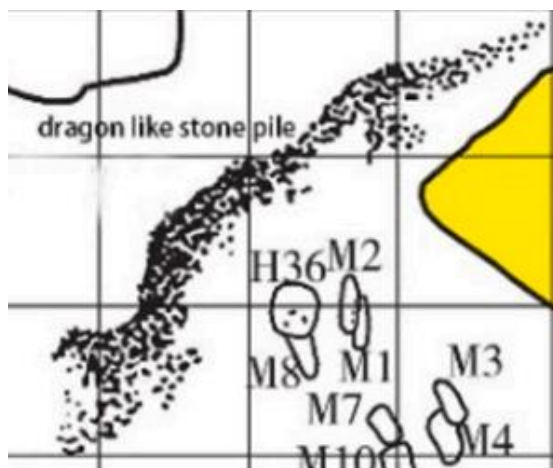


Figure 10 Dragon-like stone pile from Chahai (Tu, D., et al., 2022:4)

The dragon-like stone pile from Chahai (Figure 10) is possibly the oldest known dragon depiction in the world, dating to the third phase of the Chahai site of North-Eastern China, approximately 7.7 thousand years ago (Tu, D., et al., 2022:4). The creature depicted by this stone pile can be seen to have a head, limbs, serpentine body, and a long tail. Acting on the assumption that this depiction is of a dragon, the details that can be gathered from it show this depiction to be fitting the description of a category 5 dragon, the category most

associated with the East Asian tradition. The representation is, unfortunately, somewhat vague in relation to the head, so it is difficult to tell if this is similar to the pig-like shape of later Neolithic dragon heads. Aside from this, though, it shows all the characteristics that can be associated with later dragons of the East Asian tradition.

The other Neolithic dragon of this tradition that will be discussed separately here, this time from the sample of pre-Han Dynasty depictions making up the dataset, is a depiction of a dragon from the Hongshan Culture of North-East China (Figure 11), dating to between 6.7 and 4.9 thousand years ago. This depiction shows a dragon with a long, serpentine body, pig-like head, and what can be identified as hair. The head and hair are typical of a category 5 dragon, but the body is otherwise that of a category 4 dragon. There do not seem to be any markings on the artefact indicative of limbs. This thus suggests two possibilities: either the active decision was made to not include limbs on the artefact, likely either for stylistic or practical reasons, or at the time this artefact was made, dragons of this tradition were not considered to have limbs. The cause of this, owing to the prehistoric nature of this artefact, is beyond our knowledge. This artefact can be confirmed to be a depiction of a dragon though, owing to its similarity to later dragon depictions, and as such serves as a confirmable starting point for the analysis of East Asian dragons, even if the Chahai depiction cannot.



Figure 11 Hongshan Culture Jade Dragon depiction. (Anonymous, 1991:26)

From these two, we go onto the more in-depth analysis of pre-Han Dynasty Chinese dragons. To start with, Figure 12 shows the average number of dragon depictions in 50 year periods, starting with the beginning of

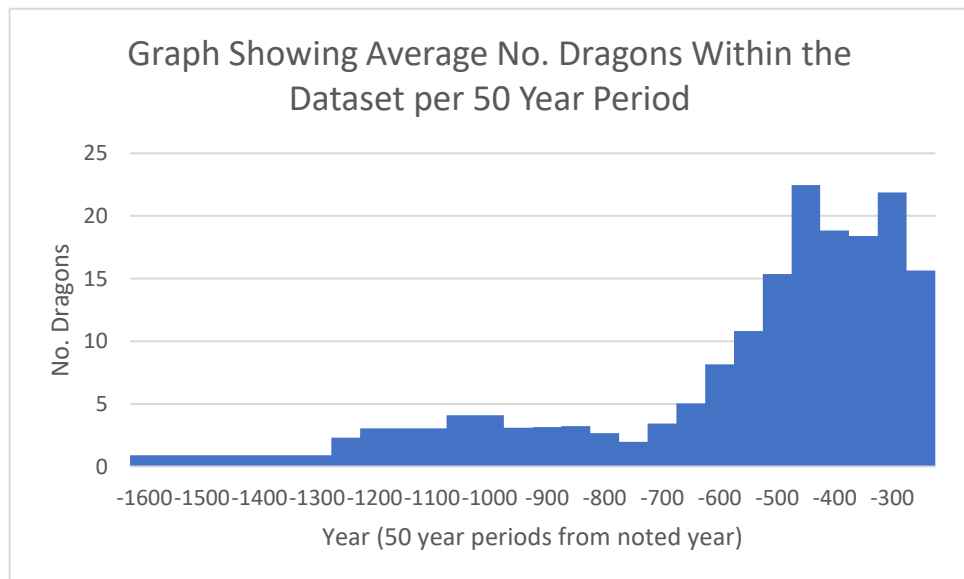


Figure 12 Graph showing the average number of dragons within the dataset per 50 year period between 1600 BCE and 250 BCE.

the Shang Dynasty, and ending with the Qin Dynasty. As can be seen from this, the average number of representations in the dataset considerably increases starting in the

Spring and Autumn period and continuing into the Warring States period, decreasing slightly during the Qin dynasty. Part of this could be due to archaeological bias, in that the more recent examples of dragon images have survived intact more often than the older representations from the Shang and early Zhou Dynasties. The eventual drop-off can potentially be linked to the association between the dragon and the Emperor, with Qin Shi Huang becoming the first Emperor of China in 221 BCE. This is purely supposition though, as without a more in-depth study of dragon depictions immediately before and during the Qin Dynasty, it is unconfirmable whether or not dragon depictions fell out of favour with those who disliked the Emperor.

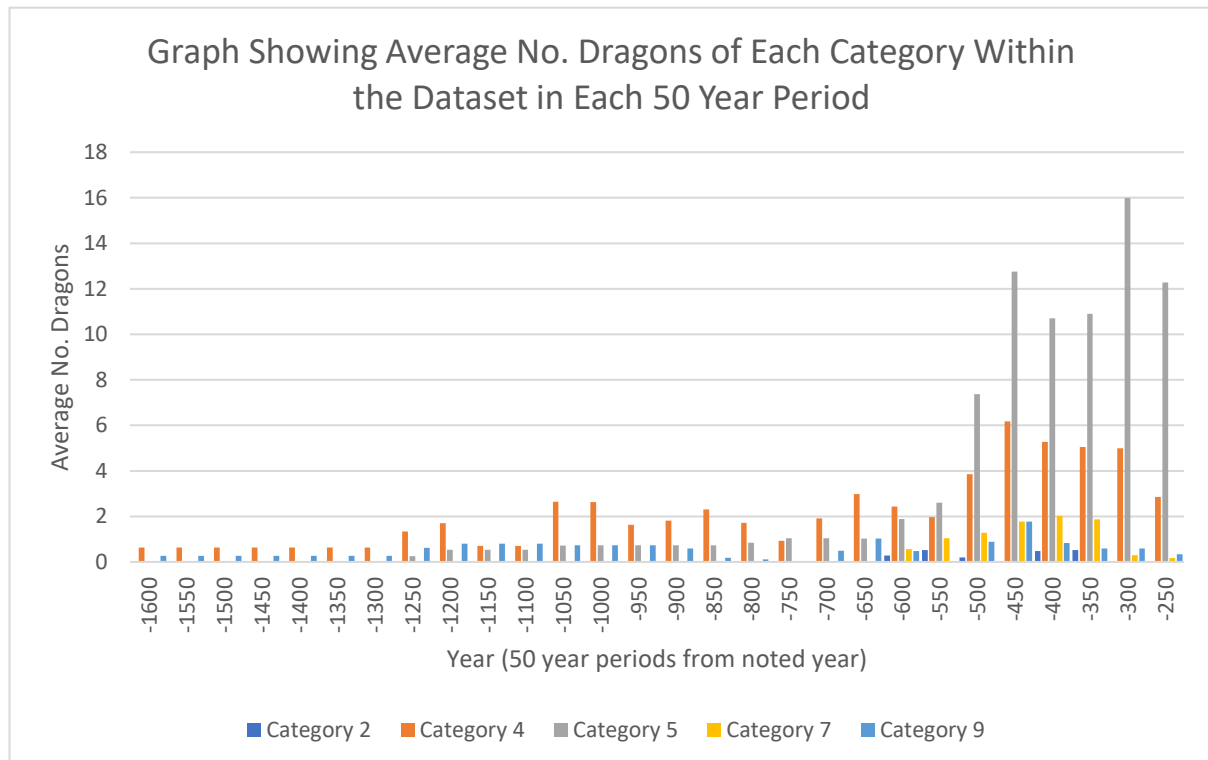


Figure 13 Graph showing average number of dragons within the dataset in 50 year spans, broken down by category.

Figure 13 shows how the average numbers of representations of different categories of dragons in pre-Han Dynasty China changed over time. Only categories 2, 4, 5, 7, and 9 are represented within the dataset, and of these, both instances of category 2 are also considered category 5 dragons.

What this graph shows is that, in the early Shang Dynasty, when this graph begins, dragon depictions, as far as the sample dataset goes, were limited to categories 4 and 9. These dragons are depicted as being of primarily serpentine form, with category 9 also having a pair of legs. Figure 14 shows an early Shang Dynasty category 4 dragon, while Figure 15 shows a category 9 dragon from the same period. The dragon depictions from the period containing the Qin Dynasty are not only of those previously mentioned categories, but also of categories 5 and 7. Category 5 dragons are commonly depicted as having serpentine bodies and, unusually, these Chinese category 7 dragons are also represented as having serpentine bodies, unlike the crocodilian body-types more typical for this category. Also unlike the more typical representations of category 7 dragons, these dragons seem to have feathered wings instead of the bat-like ones shown on most dragons of this category. An example of one of these category 7 dragons can be seen in Figure 16. As well as these unusual category 7 depictions from the Qin Dynasty, there were some examples of dragons within the dataset which were both category 2 and 5 dragons.

These dragons are depictions

of phoenix-dragon hybrid creatures, possessing generally draconic forms, but with the



Figure 14 Early Shang Dynasty category 4 dragon (Anonymous, 1991:51)



Figure 15 Early Shang Dynasty category 9 dragon (Anonymous, 1991:50)

heads and other features of phoenixes. Figure 17 shows one of these phoenix-dragon depictions.

The key common feature for all these dragon depictions is the generally serpentine form. The number of legs vary throughout time, but as can be seen in Figure 13, the four-legged dragon becomes by far the most common by the time of the Qin Dynasty, with both the category 5 and 7 dragons (as well as the earlier category 2 dragons) all possessing four legs. Despite this, the legless category 4 dragons remained

fairly common going into the Qin Dynasty. There are two possible explanations for this notable difference in legs: the first is that different regions of China had variations in the number of legs their depictions of dragons possessed, with some regions giving them a set of four legs, while others kept them legless. This variation helps explain why some are depicted as only having a single pair of legs. The other possibility, supported by the theory that the stone pile from Chahai (Figure 10) depicts a dragon, is that dragons in China were always understood to possess four legs, and the reason some are depicted either as being legless or as having only two legs is due to varying degrees of stylisation in their depictions and/or ease of workmanship making it impractical to depict four legs on occasion. The later trend of four-legged dragons could potentially be due to improved crafting techniques making it less impractical to give dragons four legs.

Ultimately, we can't be sure at this point based on the archaeological evidence alone. What can be said for certain, though, is that representations of four-legged dragons in the archaeological record

seem to increase as time goes on, while the proportion of legless dragons seems to decrease from the 6<sup>th</sup> century BCE onwards.

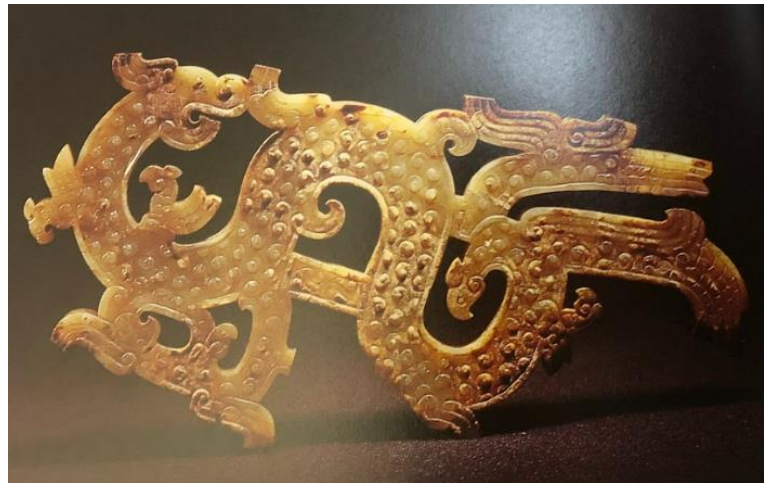


Figure 16 Winged dragon from the end of the case study period (Anonymous, 1991:187)



Figure 17 Phoenix-Dragon Hybrid (Anonymous, 1991:24)

As for the phoenix-dragon hybrids, such as Figure 17, a potential explanation for them can be found in the relationship between the dragon and the *fenghuang* (Chinese phoenix). Phoenixes were mythical creatures who were considered to be imperial animals of equal standing to dragons (Roberts, 2010:98), and in later times were considered the feminine equivalent of the masculine dragon. As such, the phoenix-dragon hybrid depictions could have been representative of a merging of great powers at the time they were created. If they were made in later periods, an argument could be made for the hybrids representing unity of opposing universal forces, but that would only apply to Qin Dynasty and later depictions.

The category 7 dragons, having four legs and seemingly feathered wings, are similar in physical depiction to the much later category 5 Persian Azhdaha shown in Figure 3, with the Chinese dragons' wings being visually similar to the flames wreathing the Azhdaha. While it is possible that what are being considered wings are actually early depictions of similar flames, there is a precedent in Chinese mythology for winged dragons, with Yu the Great supposedly being born as a winged dragon (Roberts, 2010:32). This would then suggest that the later flames originated as wings possessed

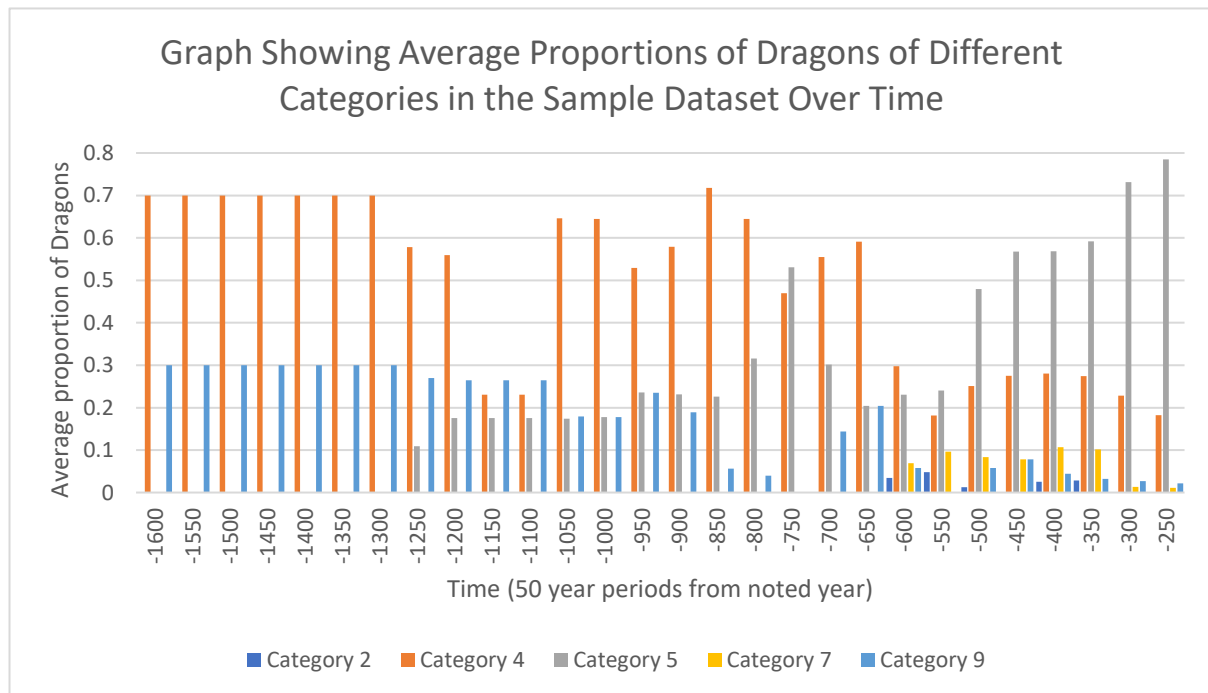
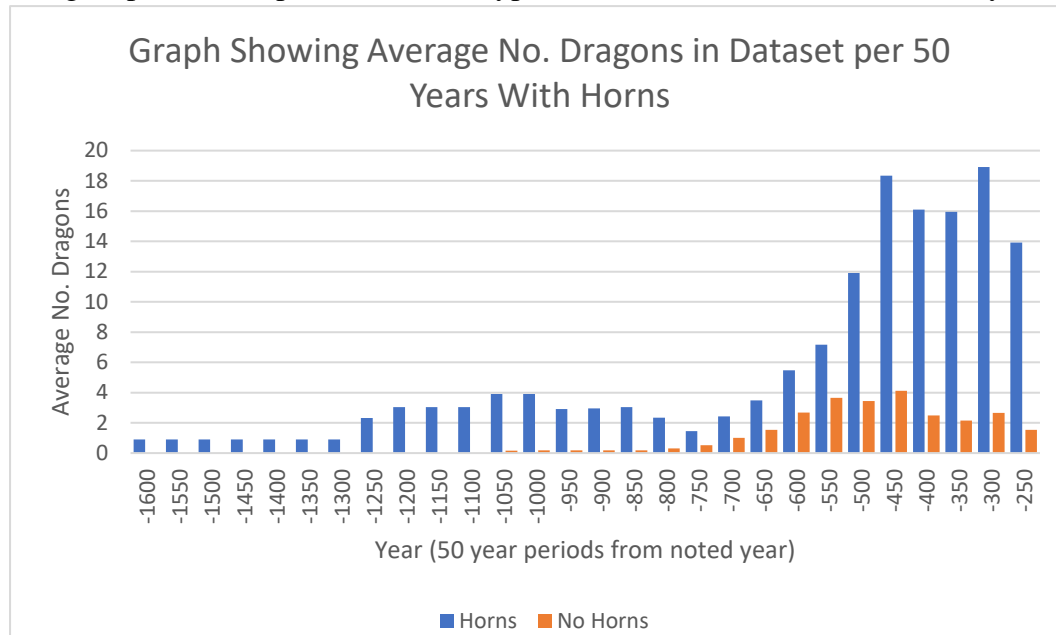


Figure 18 Graph showing average proportions of dragons of different categories in the sample dataset over time

by certain dragons which over time were replaced with flames, possibly owing to the belief that East Asian dragons could fly without needing wings, making them superfluous and unnecessary, and the depicted parts instead being reinterpreted as magical flames.

Figure 18 better highlights the changes in the presence of different categories of dragons over time, due to it depicting the proportions of them, mitigating visual errors from just using the average numbers. What this shows is that, with the exception of the end of the Shang Dynasty (1150-1050 BCE), there was a fairly constant proportion (approximately 63% of dragons depicted) of category 4 dragons

being depicted compared to other types until the end of the 7<sup>th</sup> century BCE. At this



point there is a sharp decrease to a new, fairly constant level of 25%. Category 9 dragons are also fairly constant, at

Figure 19 Graph showing average number of dragons in the sample dataset per 50 years with and without horns

approximately 26% of depictions, until the mid 9<sup>th</sup> century BCE, at which point there is also a significant decrease before they eventually settle at approximately 4% by the 6<sup>th</sup> century BCE. The category 2 phoenix-dragons, even in terms of proportions of dragons in the dataset, have a minuscule presence, but for the period they appear in have a fairly constant rate of roughly 2% of depictions. Category 7 dragons, once they first appear in the 6<sup>th</sup> century BCE, also have a fairly constant proportion, this being approximately 9%, though this decreases in the late 4<sup>th</sup> century BCE to 1%, where it remains until the end of the Qin Dynasty. Finally, the category 5 dragons begin in the late 13<sup>th</sup> century BCE with a fairly constant proportion of 19% lasting until the late 9<sup>th</sup> century BCE, before peaking initially in the late 8<sup>th</sup> century BCE, then falling again, only to rise continuously until the end of the 3<sup>rd</sup> century BCE at least. It should be noted that the notable decrease in the proportion of depictions of category 4 dragons during the Shang Dynasty begins at the same time as the depictions of category 5 dragons enter the archaeological record, suggesting a possible link between the two. The category 5 dragons are the only ones who do not settle into constant proportions, with the exception of their early depictions before the 8<sup>th</sup> century BCE. After this point there is much fluctuation. The cause for this I cannot say, though the initial peak seems to coincide with the beginning of the Spring and

Autumn period, during which there was a distinct loss of royal power in China and the rise of regional warlords, which could have been a contributing factor.

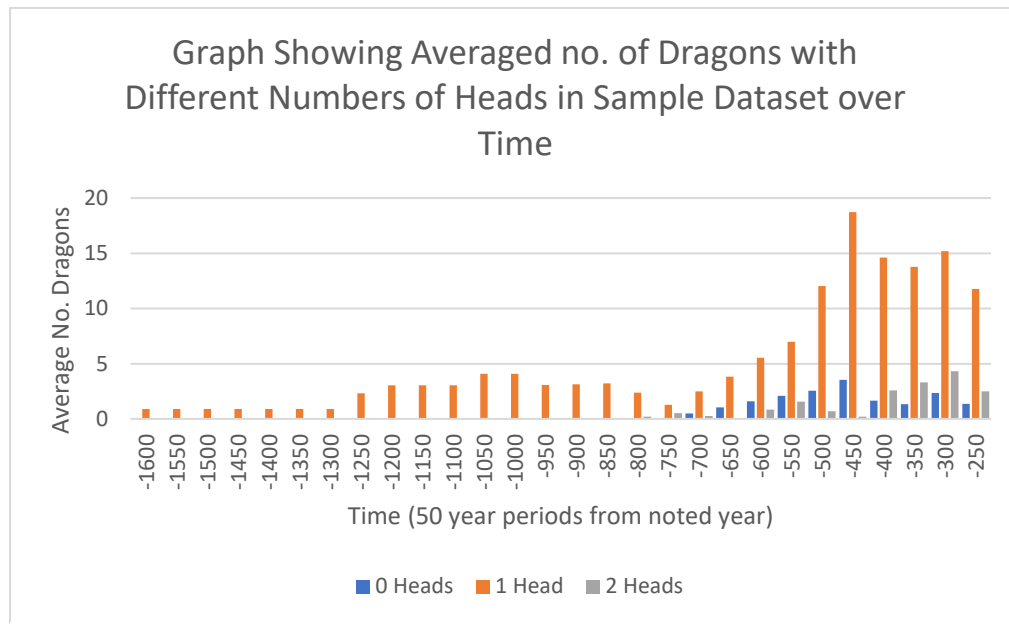


Figure 20 Graph showing the average numbers of heads of dragons in the sample dataset in each 50 year period

Another graph that has been made for this case study is Figure 19, which shows the average numbers of horned and hornless dragon depictions over time. Until the Qin

Dynasty, horns were used for determining the sex of a dragon being depicted, with horned dragons being male, and female ones instead lacking horns (Roberts. 2010:23). Bearing this in mind, what Figure 19 shows is that depictions of male dragons were more common in China between the start of the Shang Dynasty and the fall of the Qin Dynasty. Figure 20 shows the proportions of representations of horned and hornless dragons over time. It shows that hornless (female) representations become more common from the Zhou Dynasty until the late Spring and Autumn period, with them

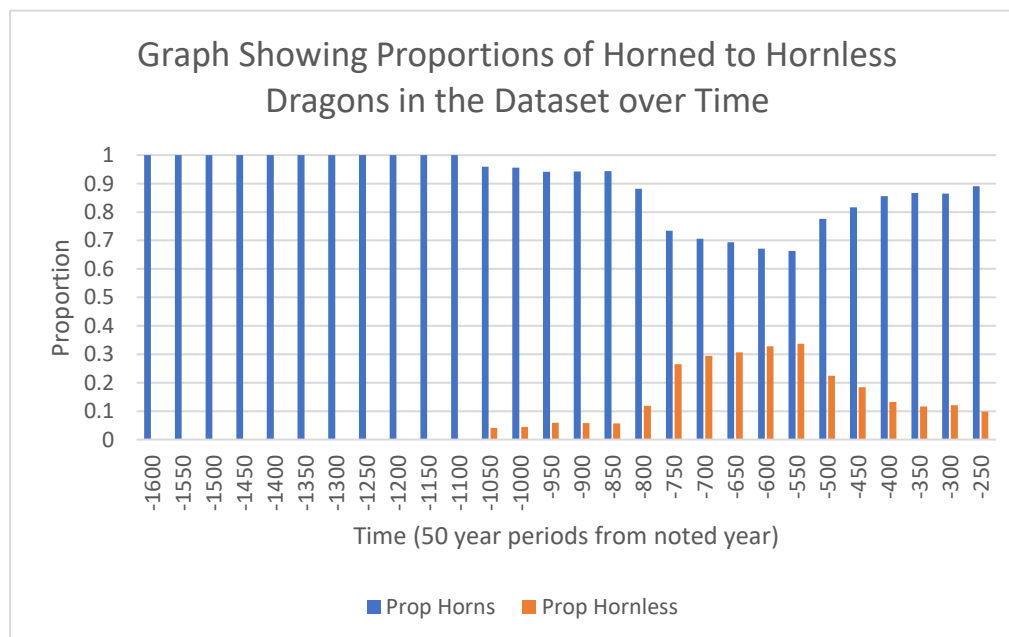


Figure 21 Graph showing the proportions of horned (male) to hornless (female) dragon representations in the dataset over time

becoming rarer afterwards. I do not have a potential explanation for why this occurred before the Qin Dynasty, the point at which dragons became

considered symbols of masculine power, and thus this is something of a mystery to me.

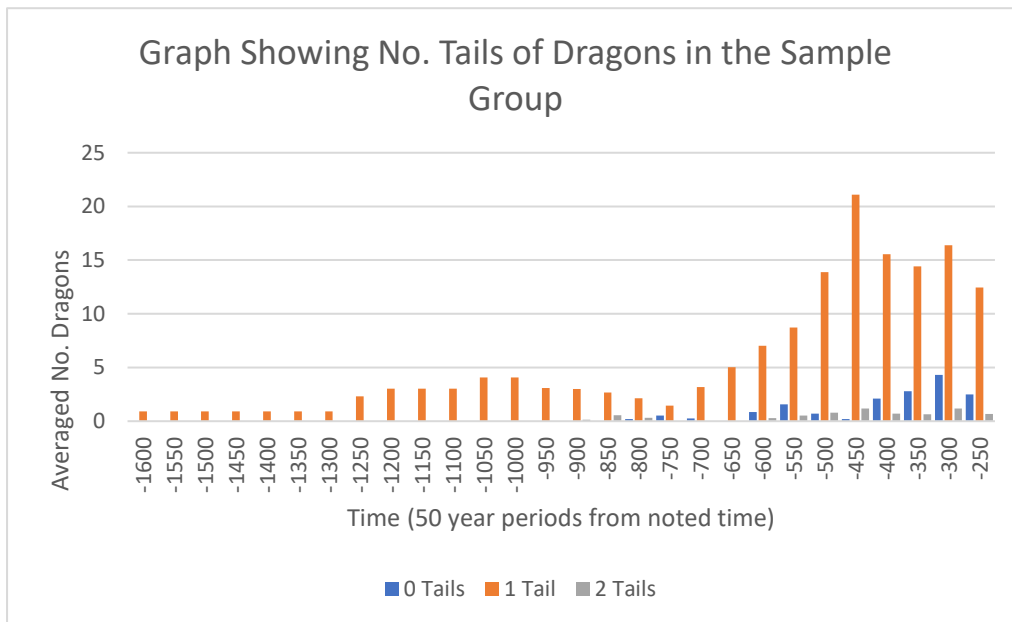


Figure 22 Graph showing the numbers of tails possessed by dragons in the sample group averaged over the dragon representation's period of manufacture.

In addition to looking at the presence of horns, it is also important to look at the number of heads the dragons possess. Figure 21 shows the number of heads possessed by dragons of each 50

year period within the sample group. What this graph shows is that, while one-headed dragons were always the most common in the period before the Han Dynasty, dragons with no heads or with two heads were also depicted. Most of the headless dragons are known as symbolic dragons: headless, limbless dragons used to fill space on an object, typically a bronze work in this period. By comparing Figures 21 and 19, we can see considerable overlap between the hornless dragons and headless dragons from 700 BCE onwards, which suggests that the proportion of female dragon

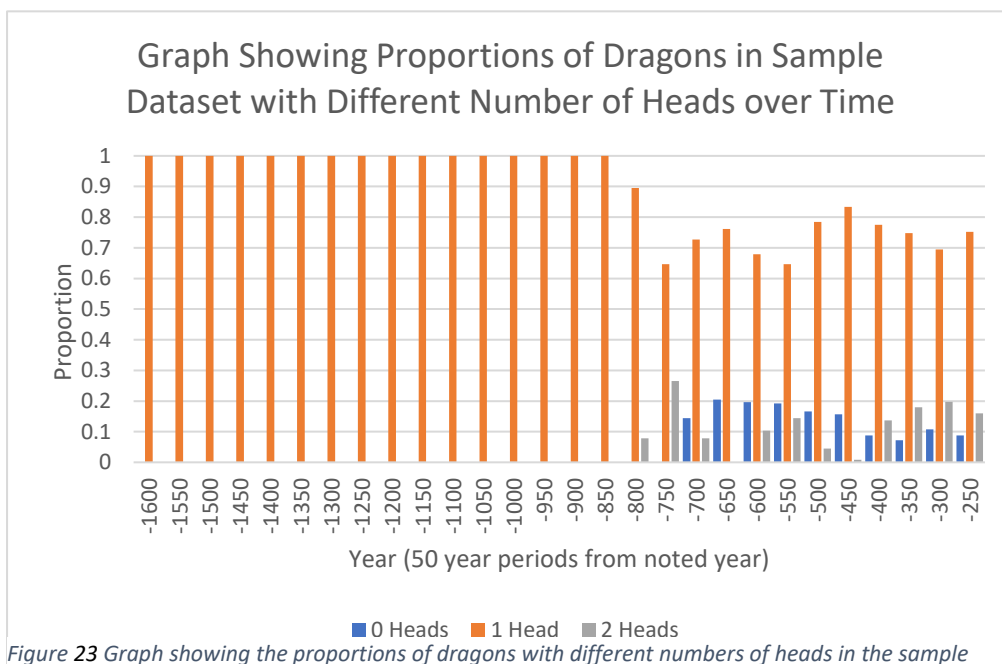


Figure 23 Graph showing the proportions of dragons with different numbers of heads in the sample dataset per 50 year period

representations began falling approximately 250 years earlier than Figures 15-16 suggested, with many of the “female” dragons over those 250 years actually being symbolic dragons.

Figure 22 shows the proportions of the different numbers of heads within the sample dataset. This graph, like the previous one, shows that one-headed dragons were the most common type between the beginning of the Shang Dynasty and the end of the Qin Dynasty, though from the spring and autumn period onwards there was much fluctuation when it came to the heads of dragons. Due to this occurring from approximately the start of the Spring and Autumn period, this could possibly be linked to declining royal power and different groups within China trying to differentiate themselves and their works from those of their rivals.

The next physical feature of these early Chinese dragons that will be examined is their number of tails. Figure 23 shows the numbers of dragons with different numbers of tails within the sample group. Even at first glance, this shows that one-tailed dragons are distinctly more commonly depicted than tailless or multi-tailed dragons. If this is compared to the information shown on Figure 21 about two-headed dragons, the results are almost identical. This is due to the majority of tailless Chinese dragons from this period in the dataset having a second head where their tail would otherwise be.

Two-tailed Chinese dragons are often depicted in the dataset as not only having two tails, but possessing two bodies sharing a single head. This may be due to stylistic reasons in the representations, or it could be for other reasons. As these works were made upwards of 2,000 years ago, it is nigh-impossible to tell.

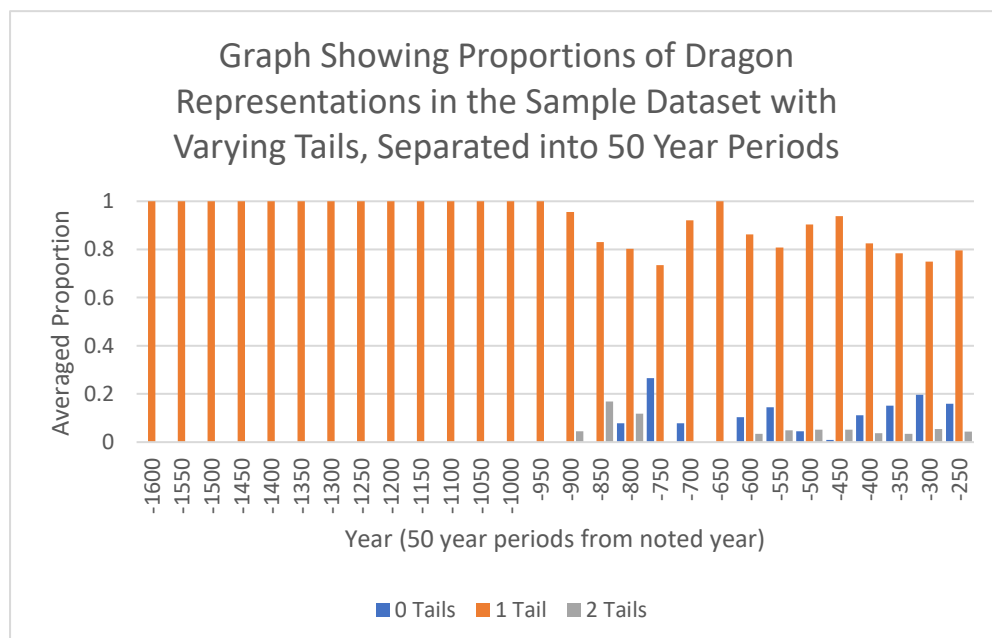
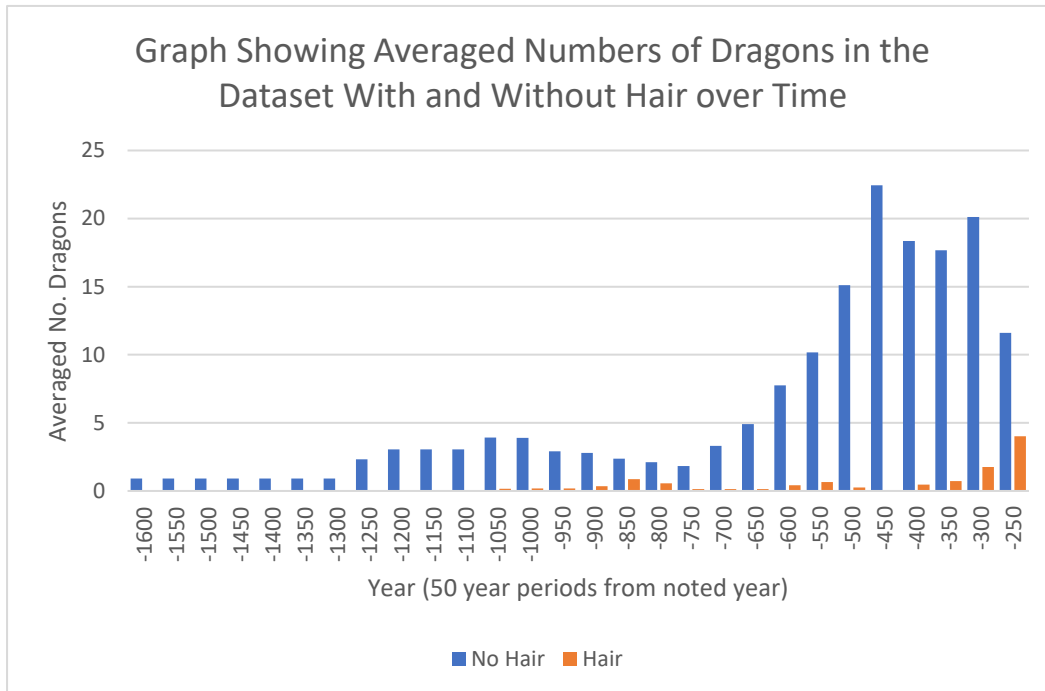


Figure 24 shows the data as proportions of the total number of dragons represented within each 50 year span. What this graph shows is that, while single-tailed Chinese dragons were always the most common

Figure 24 Graph showing the proportions of dragon representations from each 50 year period in the dataset and how many tails their representations possess

representations within the dataset in the period in question, from the 9<sup>th</sup> century onwards their popularity seems to fluctuate somewhat, with peaks in the late 7<sup>th</sup> and

5<sup>th</sup> centuries BCE, with another rise beginning in the late 3<sup>rd</sup>. With the tailless dragons, the proportions of their appearances match those of the two-headed dragons shown in Figure 22, which fits with most two-headed Chinese dragons in this period (at least as far as the sample dataset goes) having their second head where their tail would ordinarily be. It also shows that two-tailed dragon depictions were most common in the second half of the Western Zhou Dynasty (c. 900-771 BCE) and afterwards aren't represented in the dataset again until the 6<sup>th</sup> century BCE, after which point they are a constant presence, with approximately 4% of dragon representations from those periods in the dataset possessing two tails.



The final physical aspect of these pre-Han Dynasty dragons is the presence of hair. This is generally in the form of a mane or beard. Figure 25 shows

Figure 25 Graph showing the average numbers of dragons in the dataset with and without hair over time.

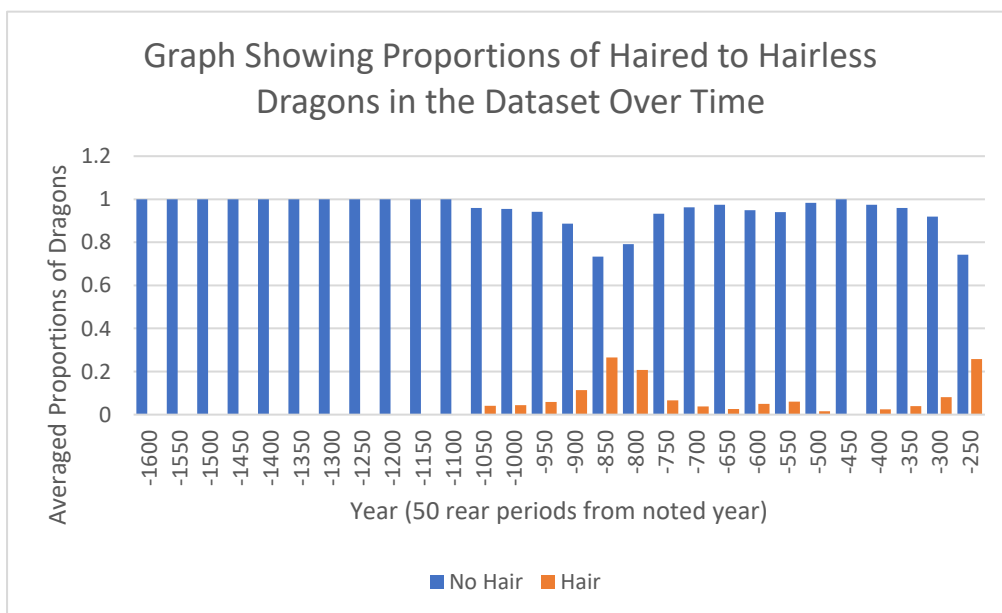


Figure 26 Graph showing average proportions of haired to hairless dragons in the dataset over time

how the dragon

representations in this dataset are divided as far as the presence of hair goes. What this shows is that throughout China, between the Shang and Qin Dynasties, the dataset indicates that there was a vast difference between the numbers of haired and hairless dragons being depicted. Figure 26 further demonstrates this, but also highlights that there was an earlier peak in haired dragon representations in the late 9<sup>th</sup> century BCE, during the Western Zhou Dynasty, before declining as China moved into the Spring and Autumn period. It has been suggested that the presence of hair on dragons can be indicative of a dragon's masculinity (Roberts, 2010:33), though this does not seem to have much of a correlation with the data shown in Figure 16.

What this all shows is that, at least as far as the sample dataset is concerned, there was a period of initial change in appearance around the start of the Spring and Autumn period, with a continuous rise in change again starting towards the end of the Warring States period and going into the Qin Dynasty.

Aside from their change in appearance, there are also the ideas associated with them to consider. While the associations with the neolithic dragons and Shang Dynasty dragons cannot necessarily be determined, from the Western Zhou Dynasty onwards, they can.

The *I Ching*, as previously stated, was written primarily during the Western Zhou Dynasty, and so the ideas associated with dragons recorded within can likely be identified as being of that period. Regarding dragons in general, it says that the Duke of Kâu used the symbol of the dragon to represent the idea of a better form of human who possessed the characteristics of heaven. Furthermore, the text claims that in even earlier periods, dragons were associated with dignity, wisdom, sovereignty, and sagehood, all of which are mentioned as being virtues of this better form of humanity (Anonymous & Legge, 2020:96). This association with sovereignty is consistent with later identifications of the dragon as the imperial creature, as exemplified with the five-toed imperial dragon (Kadoi, 2009:20).

This otherwise consistent association with dragons is, however, at odds with what the scholar Wang Chong states was the case, with his account being that dragons in China were considered nothing more than animals which he claimed were farmed for meat until after Buddhism was introduced into China during the Han Dynasty, and even then the change in association took centuries to spread throughout Chinese territory (Chung, 1998:135).

A potential explanation for this to some degree is regional variation in the associations with dragons, with the *I Ching* specifying it was the Duke of Kâu who was associating the symbol of the dragon with better humans, and Wang Chong stating that the associations changed over the centuries. This does not explain, though, how the use of the dragon as a symbol for wisdom and sovereignty, as shown in the *I Ching*, can predate that association's supposed introduction during the Han Dynasty by approximately five hundred years.

#### Case Study 4

This case study, unlike the others, does not focus on a particular tradition, but instead on our limited knowledge of dragons in certain parts of Asia, such as Siberia and the Malay Archipelago. This case study will focus on the Japanese dragon Yamata no Orochi.

Yamata no Orochi is a Japanese dragon mentioned in the *Kojiki*. Physically, he is described as having eyes the colour of winter cherries, with eight heads and tails growing from a single body, on which moss, false cypress, and Japanese cedar grow. His body was said to extend over eight valleys and hills, and his body was supposedly always bloody and inflamed (Yasumaro, et al., 1982:73). This overall depiction in the *Kojiki* makes him a category 10 dragon. Yamata no Orochi is a dragon of the Indo-European tradition, though his presence in Japanese mythology predates the arrival of Buddhism in Japan, which is the source of a large amount of Indo-European influence on Japanese culture. To begin with, I will use tables based on those designed by Bruce Lincoln (1976:60-61) to demonstrate the similarities between the story of Yamata no Orochi with other Indo-European dragons (Table 1).

What Table 1 shows is that the story of Yamata no Orochi fits within the Indo-European dragon tradition and it diverged from the Indo-Iranian tradition at a slightly later date, as evidenced by the presence of an intoxicant, which Lincoln gives as a unique feature of the Indo-Iranian tradition (1976:58). The intoxicant being used as a weapon against the serpent instead of a means to fortify the hero further suggests a relatively early deviation, most likely shortly after the Proto-Indo-Iranian tradition branched from the earlier Proto-Indo-European tradition, shortly after the presence of the intoxicant in any form was included in the myth. The Vedic version also makes mention of Vritra getting drunk before fighting Indra, further supporting the idea of the Japanese stories diverging from the Indo-Iranian branch (Anonymous & Doniger, 1981:149).

With this as a starting point for how Yamata no Orochi ended up as an Indo-European dragon in Japan, and Yamata no Orochi himself as the end point, the question becomes one of how he got there. According to the *Kojiki*, Yamata no Orochi originated in the land of Koshi (Yasumaro, et al., 1982:73). Koshi, according to Aston, was generally used to define a vague area in the north-west of Japan and that in the *Nihon Shoki*, a more elaborate and detailed account of the myths within the *Kojiki*, it was specifically meant to denote the Island of Yezo, which in the modern day is the island of Hokkaido (Yasumaro, et al., 1982:73), indicating an Ainu origin for Orochi.

PIE Feature	Japanese	Avestan	Indian
Hero (*Trito-)	Susanoo	Thraetaona	Uttāṅka
Deity	Ashimazuchi	Vayu, etc.	Indra & Agni
Enemy	Yamata no Orochi	Azi Dahaka	Takshaka
Three-Headed	Omitted	Three-headed serpent	Omitted
Serpent (*ng <sup>w</sup> hi)	Orochi = Large Snake?	Azi	Nagaraja
Aborigine	Inverted – From Koshi	Dahaka	Lives in the ground
First Encounter	Annually stole a daughter from Ashimazuchi & Temazuchi	Stole women and realm from Yima	Stole earrings from Uttāṅka
Ritual Intoxicant	Eight vats of eight-fold refined liquor	Libation	Amrita
Booty	Woman and Sword	Women and Realm	Earrings
Main Tendency of Text	Historicized	Historicized	Historicized
Transformation: Hero	Deified	Historicized, shifts generation	Clear
Transformation: God (I-I)	Clear	Substituted	Multiplied
Transformation: Enemy	Clear	Historicized	Historicized
Transformation: First Encounter	Clear	Historicized	Historicized
Transformation: Intoxicant (I-I)	Purpose Shifts	Clear	Clear
Transformation: Booty	Species Shifts/Becomes Object	Historicized	Becomes Object

Table 1 Table showing Proto-Indo-European features in various myths

Historical references to dragons in Ainu culture are somewhat lacking, and their oral tradition has only been recorded since the late 19<sup>th</sup> century, though the content is much older. Ainu dragons, like most other dragons, are depicted as living in water, and are associated with the heat of the summer. They are noted to emit a horrible smell capable of killing humans and other *kamui* (Ainu deities). The *Song of a Dragon God* depicts a lake-dwelling dragon who is tricked into going to the land of the hornets, where he is stung to death for his evil deeds (Phillipi, 1979:154-161). Of the factors listed on Tables 1 and 2, the story of this generic Ainu Dragon, known as *Sak-somo-ayep* and alternatively as *Hoyau* (“snake”) and *Chatai* (from the Japanese *jatai*, meaning “snake” or “dragon”), both of which are cognates for *Azi/Ahi*, has omissions for the three-headed and booty aspects, with an inversion in the Transformation: First Encounter category, which overall suggests that this Ainu dragon can potentially be considered to be part of the Indo-European tradition. The similarities between how Yamata no Orichi and *Sak-somo-ayep* fill the categories in Lincoln’s table (Table 2) suggests that the common origin of the two was *not* a

three-headed dragon, owing to both descendant dragons omitting the three-headed feature, but was still something that could be considered a dragon. It was likely associated with water, due to *Sak-somo-ayep* living in a lake, and Yamata no Orochi being associated with the Hi River. Beyond this, the hero-deity from the common origin who slew this dragon had the direct help of an elderly deity. The dragon most likely encountered either the hero-deity or the assisting deity beforehand, and was killed through some means involving either food or drink that either killed directly or allowed the hero-deity to kill them. There was also likely some sort of treasure that the Hero-Deity claimed.

In terms of appearance, *Sak-somo-ayep* is described in the *Song of the Dragon God* as being snake-like, and slithering out of his lake (Phillipi, 1979:158), suggesting a lack of legs. Beyond this, the story does not give much information as to the dragon's form. It does give information about how the dragon was perceived though, which, like Yamata no Orochi, was distinctly negative, though the ending of the *Song* does suggest that good dragons do exist, and that it was just

PIE Feature	Japanese	Ainu
Hero (*Trito-)	Susanoo	Okikurmi
Deity	Ashimazuchi	Elderly Hornet God
Enemy	Yamata no Orochi	Sak-somo-ayep
Serpent (*ng <sup>w</sup> hi)	<i>Orochi</i> = Large Snake?	<i>Hoyau</i> = Snake
Aborigine	Inverted - From Koshi	Sent by Kamui to live in his lake
Ritual Intoxicant	Eight vats of eight-fold refined liquor	"Fish"
Booty	Woman and Sword	Omitted
Main Tendency of Text	Historicized	Mythic
Transformation: Hero	Deified	Deified
Transformation: God (I-I)	Clear	Clear
Transformation: Enemy	Clear	Clear
Transformation: First Encounter	Clear	Inverted
Transformation: Ritual Intoxicant	Purpose Shifts	Purpose Shifts
Transformation: Booty	Species Shifts/Becomes Object	Omitted

Table 2 Table comparing the stories of Orochi and Sak-somo-ayep with the reconstructed PIE original this particular

dragon that was evil. The *Song of the Thunder God*, another *Kamui Yukar* which features a draconic storm god, mentions the dragon, Kanna Kamui, as flying over human villages on a metal chariot and also making mention of him possessing legs (Phillipi, 1979:150-153). Assuming that Kanna Kamui and *Sak-somo-ayep* are similar in form, this implies that Ainu dragons are depicted as lacking the ability to fly under their own power, and are instead forced to rely on the same means of transportation as the other gods. That one of these dragons is depicted as slithering and the other as being able to stand on legs suggests that there might be variation in their physical forms though, or that slithering was how they moved when not standing. The goddess Nusa-kor-huchi appearing in the form of a serpent as well

(Phillipi, 1979:147) suggests that the possession of legs might be more unique to Kanna Kamui than being a thing possessed by Ainu dragons in general. As such, the depiction of *Sak-somo-ayep*, with these other Ainu dragons in mind, suggests that he is both a category 1 and 4 dragon.

Regarding the inversion, Lévi-Strauss argues that inversions are an extreme, but legitimate form of Transformation as a story evolves over time (1976:30-32), and as such its presence in the Ainu story is still fitting for it being part of the Indo-European tradition.

Tracing the origins of Orochi beyond the Ainu though, is incredibly difficult as there are no obvious sources for the Indo-European tradition reaching the Ainu. Phillipi identifies, in other *yukar*, influence from the Nivkh people of the northern Sakhalin island (1979:168) and the Inuit (1979:195). Of these, it is incredibly unlikely that the Inuit are responsible for bringing these Indo-European dragon stories to the Ainu. It is also a possibility that there is no connection to the Indo-European tradition, and these Ainu dragons are instead a wholly independent development that, by pure coincidence, have undergone a form of convergent evolution to match the Indo-European dragon legends. There is ultimately not enough evidence either way to discount either possibility.

The Ainu dragon Kanna Kamui is depicted similarly to the thunder dragon *mudur* (Figure 27) from the mythology of the Nivkh and other peoples of the Amur river, with *mudur* being recorded in Nivkh mythology as attacking those they don't

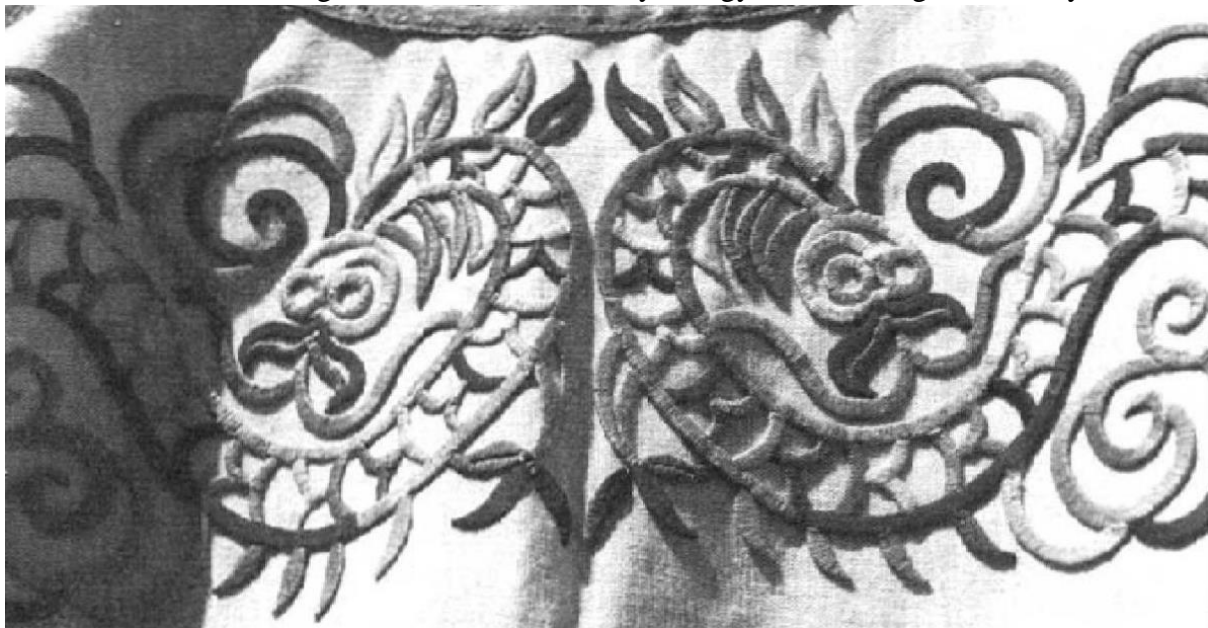


Figure 27 Image of the Heavenly Dragon *mudur* (Van Deusen, 1946:195)

like (Delaby & Beffa, 1998:146). *Mudur*, though, is noted as originating in Manchu mythology (Zgusta, 2015:126), which due to the Manchu people having ruled China on multiple occasions, and Figure 27 showing *mudur* depicted as a stylised category 5 dragon, would suggest that *mudur*, and by extension Kanna Kamui, are part of the East Asian tradition instead of the Indo-European one, with Kanna Kamui therefore likely postdating *Sak-somo-ayep* amongst the Ainu. This therefore does not provide

any direct explanation whatsoever for the appearance of Indo-European dragons in the Japanese archipelago predating Buddhism. If there was further information available about the beliefs of the native populations of north-east Asia, then it is possible that the means of the initial transmission of Indo-European dragons to Japan can be determined, but as things currently stand, there is not enough information.

Similar lacking of information is also a problem for looking at the other dragon traditions of Asia, namely the Austronesian and Siberian traditions. The only account of dragons of the Siberian tradition that I could find and deem suitably academic for use was in Lauder & Pelliot's discussion about the Arab and Chinese walrus and narwhal ivory trade in which a Chinese reflex called the *yin shu* is discussed, a reflex that is explicitly rodentlike instead of draconic (1913:329). From less reliable sources discussing Siberian accounts, they are depicted as being much more like dragons of other traditions, but none of this information is reliable enough to be discussed here. Unless more academically suitable information is made available about these dragons, which unfortunately in the current political climate seems incredibly difficult, it is impossible to give even a suitable overview of this tradition, or to see what influence, if any, it has had on other traditions.

Of the Austronesian tradition, the only academic source I could find that discusses them specifically in any suitable amount of detail in Asia was Blench's presentation on Daic prehistory which, while suggesting that a dragon tradition could exist and providing evidence for it, does not give any dates for any of the evidence (2008:7). Modern accounts and artworks of Austronesian dragons can easily be found online as well, but this is more the purview of anthropologists instead of archaeologists, and even discussions of historical artefacts do not seem to have any reliable form of dating, preventing me from using them as sources for a proper, scientific discussion. As such, as with the dragons of Siberia, I am severely limited in my ability to discuss these dragons by the lack of available information on them.

What the discussion of the difficulties with tracing the origins of Yamata no Orochi, as well as these final words on Austronesian and Siberian dragons, should convey is that beyond the Indo-Iranian, Middle-Eastern, and East Asian dragons, there is little information on dragons in Asia that is viable for archaeologists to use, and without more work relating to these places and, importantly, publication of this work in an accessible manner, we are left with great holes in our knowledge regarding this region of the world.

## DISCUSSION

As previously mentioned, the research questions for this work are:

- How have dragons in Asia changed over time?
- How do dragons in Asia vary over area?
- To what extent do the changes in dragons in Asia demonstrate diffusion theory in practice?
- To what extent can changes in dragon distributions over time be explained through diffusion theory?
- To what extent did the Indo-European tradition influence the development of dragon depictions in China?
- Where is there a general lack of information on Asian dragons?
- Can we consider “dragons” from each of the different origin points to be the same sort of mythical creature?

In this section, I will attempt to answer these questions to the best of my abilities.

### How have Dragons in Asia Changed Over Time and area?

This question, as already discussed, is best answered on a tradition-by-tradition basis and is a combination of the first two research questions of this work, due to the similarities in their answers.

With the Indo-European tradition of dragons in Asia, both case studies 1 and 4 have demonstrated a number of changes over time, just in what is ultimately the Indo-Iranian branch of the Indo-European tradition. The dragons discussed in both of these case studies, as discussed in case study 4, likely diverged from the original Proto-Indo-European tradition at the same point, with them diverging from each other at a later date, as shown by the presence of the intoxicant in both the legends of the Indo-Iranian and Japanese dragon-slayer legends.

The original dragon of this tradition, \**ng<sup>w</sup>hi*, is reconstructed by Lincoln as being a three-headed serpent (1976:58), with West adding that they may have also been amphibious (2007:255). Though \**ng<sup>w</sup>hi* themselves were unlikely to have been an Asian dragon, with modern scholarship generally placing the Proto-Indo-European homeland in modern Ukraine and south-western Russia, \**ng<sup>w</sup>hi* gives a starting point for how these dragons changed over time.

In terms of physical form, the majority of the later dragons that arose from this overall branch of Indo-European dragons (the Indo-Iranian branch, including the potential Japanese sub-branch) seem to have retained their serpentine (category 4) form. The potential sub-branch that somehow appears in Japan, first amongst the Ainu, and later amongst the Yamato people, retains this serpentine form, with *Sak-somo-ayep* among the Ainu being depicted as slithering (Phillipi, 1979:158), and Yamata no Orochi being described as an eight-headed, eight-tailed serpent (Yasumaro, et al., 1982:73). Orochi being multi-headed suggests that the earlier dragon both Orochi and *Sak-somo-ayep* were reflexes of was also multi-headed, though it is unknown how many heads this dragon possessed. After the two diverged, *Sak-somo-ayep* became a one-headed serpentine dragon, and Orochi either maintained the eight

heads of the earlier dragon (if it was an eight-headed one), or became an eight-headed dragon, as well as gaining an equal number of tails. Keeping with West's interpretation of \*ng<sup>w</sup>hi's association with water (2007:255), both Orochi and *Sak-somo-ayep* are associated with water, though this is slightly less prominent with Orochi: *Sak-somo-ayep* lived in a lake, and Orochi was associated with the Hi River. Finally, a physical aspect that is seemingly unique to this particular group of ~~Indo-European~~ dragons are features that suggest poor health: Orochi is noted as having an inflamed underbelly (Yasumaro, et al., 1982:73), while *Sak-somo-ayep* is stated to have released a stench capable of killing gods themselves (Phillipi, 1979:154-161). This suggests that the earlier dragons of this sub-branch of the Indo-European tradition gained an association with poor health at some point.

The other, confirmed, sub-branch, the dragons of the Indo-Iranian peoples, ultimately began with serpentine forms, with Azi Dahaka being a three-headed, three-tailed serpent (Bleek, 1864:55), and Vritra being reduced to a serpentine form after having their limbs destroyed in their fight with Indra (Anonymous & Doniger, 1981:150), though the implied presence of limbs before the fight precludes them from being a category 4 dragon, with them being either category 5 or 9 instead. It should be noted that, despite the possible categorisation of Vritra as an "eastern" dragon in terms of appearance, there is no evidence to suggest any influence from the East Asian tradition, making this more likely a case of convergent evolution. The depiction of Azi Dahaka having a number of tails equal to his heads, similar to Yamata no Orochi, suggests that their common origin, and possibly also \*ng<sup>w</sup>hi himself, possessed three tails as well as three heads. Unlike Azi Dahaka, Vritra is only depicted as having had a single head and tail, and with the implied limbs becomes physically distinct from not only Azi Dahaka, the closest dragon to Vritra explored in this work, but to the other dragons of this branch of the Indo-European tradition until this point. Explanations for this difference will be discussed below, in the sections about diffusion theory. In regards to the association with water mentioned above, Vritra demonstrates it through having trapped the waters and Indra having to defeat him to free them (Anonymous & Doniger, 1981:149). That Vritra was trapped under the water suggests that, unlike \*ng<sup>w</sup>hi and *Sak-somo-ayep*, Vritra was not considered to be an amphibious being, despite the association with water, something which is seemingly similar to Yamata no Orochi's depiction. Azi Dahaka lacks any association with water, though Vritra possessing it suggests that \*Aghi, the common origin for Vritra and Azi Dahaka, possessed it, though may also have lacked amphibiousness. Vritra also has a notable similarity with the Mesopotamian Tiamat in that, after their defeat, various aspects of creation are generated from them. Owing to this feature otherwise being missing from the other dragons of the Indo-European tradition, there may be some other link between the two, possibly a hypothetical pre-Indo-European vestige that diffused from one of Mesopotamia and a pre-Indo-European people in India, possibly the Indus Valley civilisation.

From Azi Dahaka, we have demonstrated further changes through the entities that are reflexes of the Avestan dragon. On the one hand, we have the Azhdaha. As has been discussed already, there are two main depictions of the Azhdaha: one with eight legs, branch-like horns, hair, tusks, and poison (Skjærvø, et al., 2011), and

another, similar to Figure 2, having four legs, wings, and a mammalian head and body (Kadoi, 2009:204). The former show a notable departure from the earlier Azi Dahaka, potentially showing influence from other dragons such as Vritra. Some are noted as being associated with water, while others are not (Skjærvø, et al., 2011). They are still depicted as being generally reptilian, but they show notably more mammalian traits, with the branching horns, similar to those of a deer, as well as hair. The later type have the same limited associations with water, and their depiction in the *Shahnameh* has the two types being mutually exchangeable as far as the narrative goes. The presence of these more mammalian features, primarily in the second type, is suggestive of influence from Mesopotamia, which will be discussed later on in the discussion of change over area. What this shows is that dragons in Iran, between the writing of the *Kordeh Avesta* and the early Medieval period underwent great physical change. A later change, which began earlier in eastern Iran but which became much more widespread after the Mongol Invasion, was these dragons taking on the physical features of category 5 dragons, typical of the East Asian tradition (Figure 3), while again keeping the same narrative role as their previous forms. On the flip side, Azi Dahaka was also the origin of Zahhak who, as discussed already, is depicted in the *Shahnameh* of Ferdowsi as being a man with a serpent head growing from each of his shoulders (Ferdowsi & Davis, 2016:10-11), and similarly, we have Armenian Azhdahak as a draconic human (Shahbazi, 2017:133).

What this all shows is that, on a purely physical level, these dragons of the Indo-European tradition, specifically those of the Indo-Iranian tradition, including its Japanese sub-branch, seem to have developed in three main directions over time: the first, demonstrated by Yamata no Orochi and *Sak-somo-ayep*, is varying their numbers of heads and becoming associated with symptoms of being unwell. The second, demonstrated by Azhdaha and Vritra has them changing categories, from 4 to 5, with the Azhdaha undergoing an intermediate transformation of becoming much more mammalian, category 2 dragons first. The final direction, demonstrated by Zahhak and Azhdahak, has them becoming much more human-like, becoming category 3 dragons – humans with draconic features.

In terms of associations, things tend to be somewhat simpler. Aside from the association with water, which has already been discussed, the key associations of the Indo-European tradition, drawn from the reconstructions of \*ṅwhi, are those of wealth, intelligence, malevolence, and power.

The association with wealth, which can be considered a staple in Western dragon stories, are demonstrated in the reconstructions of \*ṅwhi due to \*ṅwhi stealing either cattle (Lincoln, 1976:58), which granted economic wealth, or waters (2007:255-259), which grant material wealth and control over food supplies. This is maintained almost identically in the legends of Yamata no Orochi and Vritra, with Vritra stealing the waters (Anonymous & Doniger, 1981:149), and Orochi instead stealing (and devouring) goddesses (Yasumaro, et al., 1982:73). Similar to Orochi kidnapping the daughters of Ashimazuchi and Temazuchi, *Sak-somo-ayep* only leaves his lake when he is promised a bride (Phillipi, 1979:157-158). Azi Dahaka, though, with his human collaborators, acquired wealth to rival Yima, the king of the world,

and was able to compete with him for the gods' favour by making mass sacrifices (Bleek, 1864:34). In the later reflexes of Azi Dahaka, the Azhdahas lack much of an association with wealth, but Zahhak and Azhdahak have it, with both being kings, and Zahhak in particular being notable for having stolen rulership of Jamshid-(reflex of Yima, mentioned above)'s kingdom (Ferdowsi & Davis, 2016:12), and also for being materially wealthy even before gaining his draconic attributes (Ferdowsi & Davis, 2016:9-10). Overall, this shows that the Indo-Iranian dragons in Asia, while starting off with stealing either material wealth or the world's waters, have their wealth change, with the Japanese branch becoming more interested in acquiring women, while in Iran they either focus on material wealth, with some starting off rich instead of having to steal everything, and having humans help them, or they instead lose all interest in wealth, which coincides with depictions changing from category 4 to 2, which become more animalistic in nature.

The association with Intelligence begins with \* $\text{ng}^{\text{whi}}$ 's demonstration of the intelligence to steal and store what they stole, with this being depicted in the reconstructions as a deliberate act. The reflexes of \* $\text{ng}^{\text{whi}}$ , or at least the earlier reflexes, also show at least human levels of intelligence, with Orochi deciding that he would rather drink liquor than water (Yasumaro, et al., 1982:75), *Sak-somo-ayep* having a conversation with Okikurmi and the elderly hornet god, as well as being the narrator of his *yukar* (Phillipi, 1979:154-161), Vritra is described as challenging Indra to a fight (Anonymous & Doniger, 1981:150), implying the intelligence necessary to do so, and Azi Dahaka is depicted as controlling a number of human collaborators (Bleek, 1864:35) and being in possession of "a thousand strengths" (Bleek, 1864:35), thus implying great, superhuman intelligence on the assumption that these strengths are not just physical. In the later reflexes of Azi Dahaka, though, the matter is notably split, with Zahhak and Azhdahak both being of human-like intellect due to being draconic humans, while the Azhdahas are depicted as being, with few exceptions in the *Shahnameh*, unintelligent animals. What this shows is that the intelligence of dragons varies from superhuman to animalistic, even between dragons within the same source, such as Zahhak and the Azhdahas from the *Shahnameh*.

Linked with the concept of intelligence is one of malevolence and being "the enemy". This association's origin is \* $\text{ng}^{\text{whi}}$  actively deciding to steal from \*Trito- and being identified with the peoples the Proto-Indo-Europeans had fought against (Lincoln 1976:58). Orochi is shown to be actively and deliberately making Ashimazuchi and Temazuchi suffer, and also prolonging it by coming for a single one of their daughters each year (Yasumaro, et al., 1982:73), *Sak-somo-ayep* is stated to have been killed by the hornet god for his malevolence (Phillipi, 1979:160), and Vritra is depicted as being the aggressor in his fight with Indra (Anonymous & Doniger, 1981:150). Azi Dahaka is also described as being the creation of the embodiment of all evil (Bleek, 1864:55), and Zahhak is depicted as being groomed by- and making a pact with- that evil's reflex (Ferdowsi & Davis, 2016:9-13). Furthermore, Zahhak is changed into an Arab (Ferdowsi & Davis, 2016:9), who Ferdowsi is shown, especially in the later parts of his work, to have a bias against (Ferdowsi & Davis, 2016:940-961), and likewise, Azhdahak is made into an Iranian, presumably due to an association at one time or another with them being enemies of the Armenian people.

The only Indo-European dragons of this branch that can arguably be said to not be depicted as being malevolent are the Azhdahas, due to their general depiction throughout the *Shahnameh* as being animalistic instead. Those who demonstrate intelligence may be characterised as malevolent though, due to them choosing to try harming humans instead of just doing it under animalistic instinct. As Kadoi says though, at least one late depiction of an Azhdaha is of an, if not benevolent, then at least neutral dragon (2009:208). What this shows is that, until at least the medieval period, dragons of the Indo-Iranian tradition, including the Japanese branch, seem to be universally depicted as being evil, malevolent beings. With the early medieval period, some in Iran at least become animalistic, and while still threats to humans, can't really be called malevolent due to there being no conscious decision to act in such a way, with their acts being considered animalistic instinct, and after the Mongol Conquest of Iran, at least one non-malevolent dragon is represented, potentially showing influence from East Asian dragons, as described below.

Finally, we have an association with power in these Indo-European dragon depictions. With \*ng<sup>w</sup>hi, it is demonstrated primarily in West's reconstruction, with \*ng<sup>w</sup>hi being powerful enough that the storm god, \*Perkwunos, known for his violent power, was who fought against them (West, 2007:255). In the legend of Orochi, not only is Orochi debatably a deity, a dragon who easily devours deities, and is one of the largest mythical dragons of the Indo-European tradition, but the storm god Susanoo, established in the *Kojiki* already by this legend's point as being violent and unstable, is forced to rely on trickery to defeat him (Yasumaro, et al., 1982:75). *Sak-somo-ayep* is described as an outright deity and is noted for being able to kill other *kamui* with his mere presence (Phillipi, 1979:154-155). Vritra not only fights against Indra, one of the most powerful of the Vedic gods, but continues to fight after the loss of all his limbs and, in the end, is implied to have survived having all his bones shattered by Indra, being merely imprisoned underwater instead of having been killed (Anonymous & Doniger, 1981:150). Azi Dahaka's power is best described through his description of possessing "a thousand strengths" (Bleeck, 1864:35), which speaks not only about his intelligence, but primarily about his overall power. The power of Zakhak and Azhdahhak, in contrast, is primarily military-based, though Zakhak is also a notable sorcerer in the later parts of his story, taking on two apprentices during his thousand-year reign (Ferdowsi & Davis, 2016:13). Even the Azhdahas have some connotations of power, though theirs is explicitly described as being the same sort of power possessed by a wolf (i.e. physical, bestial power) (Ferdowsi & Davis, 2016:153), with this depiction of power seemingly increasing once they transitioned to category 5 dragons, owing to the wreaths of fire they possessed, as shown in Figure 3, and their association with the Mongol conquerors (Kadoi, 2009:20). What this shows is that the dragons of the Indo-Iranian branch of the Indo-European tradition (including the Japanese sub-branch) all demonstrate power in some way, shape, or form. At their weakest, they are described as animalistically powerful, with the implication of being able to kill a typical human, while at their strongest they are able to rival or even surpass deities known for their physical power in direct combat. Even the dragons that are not necessarily the strongest on a purely physical level still are described as being greatly powerful, either through their

knowledge of myriad topics (demonstrated primarily by Azi Dahaka), or through their magic (Zahhak) or command of humans (Azhdahak).

Separate from this Indo-Iranian branch of Indo-European dragons, a second branch of Indo-European dragons is present in Western Asia, represented by dragons such as Figure 1. Figure 1, showing a category 2 dragon from Mesopotamia, is one of the various types of dragon depicted in Mesopotamia, alongside category 1, 3, and 4 dragons at the very least. This *Mushussu* has the general body type of a mammal, albeit covered in scales, with the front legs of a lion, the rear legs of a bird, and the head of a snake, with the addition of horns. It is possible, though currently unprovable, that the category 2 depictions at least are influenced by an earlier, localised Mesopotamian tradition, which may possibly have included features linking dragons to the creation of various parts of existence, a feature shown also in the Indian Vritra. A notable unusual feature of these category 2 dragons is that they are not depicted as being overtly evil, becoming servants of the *Anunnaki* (“descendants of An”) after the defeat of Tiamat. These dragons may have eventually been incorporated into the Iranian Azhdahas, as shown by similar dragon depictions dating from the Sasanian Empire, such as Figure 2. Unlike the *Mushussu* of Figure 1, Tiamat, the Mesopotamian sea goddess, seems to be more directly a reflex of \**ng<sup>w</sup>hi*, with her being a dragon associated with water who was killed by a god-hero (Marduk) armed with the power of storms. She is particularly similar to Vritra since her body was used to create the world (Stephany, 2014:29-33), while various parts of existence were created through Vritra’s defeat. Physically, Tiamat’s description is fairly vague; she is described as having venom and a tail (Stephany, 2014:33), suggesting a draconic form of some description, with her being categorised as a sea serpent as a result of both her nature as the goddess of salt water, and because she was killed in the legend before land came into being but after the sea did. She is depicted not only as being incredibly powerful, with other notably prominent gods fleeing from her sight, but also because, while she lived, she controlled the Tablets of Fate, legendary clay tablets that could be used to issue orders to existence itself, and distributed them to her consorts.

The key change for these western Asian dragons after diverging from \**ng<sup>w</sup>hi* is that they became associated primarily with the sea instead of just water in general. In Mesopotamia though, things become more complex due to there being exceptions to this rule, such as Asag, from *The Exploits of Ninurta*, who is associated primarily with the earth. Unfortunately it is difficult to discuss these Mesopotamian dragons as things currently stand due to it being currently unknown how much of an extent the Indo-European tradition has played in the depictions of these dragons, and how much of an extent these changes can instead be attributed to lingering features of a hypothetical local tradition. The association with the sea though, is something seen throughout south-western Asia, and can be attributed to a change in this branch of the Indo-European tradition, and not to a local tradition.

With the dragons of the Naga tradition, changes over time can be seen to have happened in the reverse order compared to those of the Indo-European tradition, primarily the line from \**ng<sup>w</sup>hi* to Zahhak, with the dragons of this tradition beginning as humans and becoming much more draconic over time.

As has been discussed, Nagas likely originated as regular human beings who the Indo-Aryan people demonised as snake people (Manogaran, 1987:21). The early literary sources on them, the *Ramayana* and *Mahavamsa* depict the nagas as being more-or-less human, with the *Ramayana* depicting them as the descendants of an amphibious shapeshifter (Egenes & Reddy, 2016:227), and the *Mahavamsa* showing them as being able to breathe underwater (Mahanama & Geiger, 2018:7). This could potentially be indicative of influence from the Indo-European tradition due to the association between dragons and water, though admittedly Vritra, the key Indo-European dragon in India, seems unable to do so, or it could be indicative of a cultural association between the Naga people of southern India or Sri Lanka and the sea, possibly due to their own religious practices.

The influence of the Indo-European tradition seems to have come in full force by the time of the composition of the *Mahābhārata*, with the physical depictions of nagas in this work changing them into serpentine beings that could be considered either category 4 or 8, with 8 being the most fitting due to one of the nagas being depicted as being human enough to bear the child of a human. These nagas are depicted as being close relatives of Vritra, discussed above, and like Vritra the most powerful of the nagas, the *nagarajas*, are depicted as being godlike in their power (Anonymous & Smith, 2009:7-8). The Indo-European influence is most keenly seen in the section on the conflict between the nagas and Garuda, which mirrors the Indo-European conflict between dragons and the storm god which, while not resulting in the deaths of the nagas, resulted in Garuda reclaiming what was taken during the initial encounter, as well as the nagas getting punished for their actions through them being cursed with forked tongues.

Of the nagas of the *Mahābhārata*, Takshaka stands out for being, in effect, an Indo-European dragon with the appearance of a naga (Table 1), while the other two *nagarajas* show more of a combination of features of the two traditions in their depictions within the legends.

After the depictions in the epics, we have surviving artefactual representations of nagas, and these fall into two main camps: humanoid nagas, such as Figure 5, and serpentine representations, such as Figure 6. Figure 5 is humanoid with additional snake heads, while Figure 6 is a multiheaded, jewellery-wearing serpent. This therefore shows an east-west divide in their appearances, with those depicted as being more humanoid are more western depictions, while the serpentine ones are from eastern regions. A possible explanation for this is influence from the Iranian Zahhak, a king with two serpent heads, similar to the *nagarajas*. That these mostly-human depictions of the *nagarajas* comes from the Pakistan-Afghan border makes this more likely, owing to that coincidentally being the general limit of where Iranian dragons were depicted. The depiction of the serpentine *nagarajas* as being multiheaded could potentially show some Indo-European influence, but it is also likely that this is another case of convergent evolution in the different traditions' imagery of dragons, due to polycephaly being relatively common in snakes compared to most other animals.

The *nagarajas* were imported to China with Buddhism, and they were reimagined as the *longwang* (Roberts, 2010:34), gaining the appearances of category 5 dragons in the process, as shown with Figures 7 & 8, and it was this imagery that was taken to Korea, Vietnam, and Japan. These dragons, as shown in Figures 7 & 8, though most clearly in the less-stylized 7, keep their long, serpentine bodies, though have only a single head, and four limbs.

Separate from the East Asian *longwang* depictions, the naga tradition also spread separately to south-east Asia, with Figure 9 being an example of one such depiction. What Figure 9 demonstrates is that the south-east Asian nagas became further removed from their human origin and, while they became chimeric beings, they gained features of other animals instead of humans. Despite these physical changes though, their associations and narrative-based depictions are still the same as their earlier ones, with Figure 9, for example, likely being from a depiction of the *nagarajas* around the Buddha, as described in the *Lotus Sutra* (Anonymous & Kern, 1909:5). It is possible that this more chimerical depictions could be the result of Austronesian influence on these dragons, but due to the general lack of information, this is mere conjecture. It is also possible that these chimerical features may have been derived from depictions of the *makara*, a category 1 dragon from Indic mythology which Figure 5 shows the nagas coming from the mouth of, highlighting an association between the two. Smith, in his section on the *makara*, claims them to be reflexes of the Mesopotamian sea goat (the origin of Capricorn) as part of his hyperdiffusionist argument (1919:88), so while what he says about them should be taken with a grain of salt, he does collect a number of different depictions of the *makara*, a number of which show elephantine features in the *makara* depictions from Bodh Gaya and Mathura (1919:figure 14 insert), which further suggests the *makara* as the source of the elephantine chimeric features. The *makara* is likely an Indo-European dragon, but it is difficult to determine accurately its relationship to other depictions of dragons owing to its strong association with hyperdiffusionism. The association between the nagas and *makara* is probably due to the *makara* being considered the mount of the sea god Varuna, with the key connection between the two being that they are Indic dragons associated with the sea.

Linked to the chimerical naga are the naga legends of regions of south-east Asia. In a legend Wessing recorded in Cambodia, a category 8 naga is depicted as marrying a prince, who then founded his own nation (2006:211). Another legend he recorded, this time from the Malay Archipelago where a number of variants are present, is about the conflict between a scaled Garuda, in the form of either a scaled falcon or hornbill, fighting against feathered nagas (2006:211). These feathered nagas can be considered to be both categories 2 and 8 as, while they are generally depicted as being conventional nagas, they also gain the features of other animals, suggesting that physically at least, they can be considered category 2 dragons.

Aside from physical changes over time, the ideas associated with nagas have also undergone changes through time. As has already been mentioned, in the *Mahavamsa*, the nagas are depicted as being little more than humans. Supernatural humans capable of surviving underwater, but humans nonetheless. They had kingdoms ruled by *nagarajas*, they got into disagreements over inheritance, and they were willing and

able to fight amongst each other (Mahanama & Geiger, 2018:7). If not for their ability to survive underwater, one could mistake their depiction in this work for an account of the Naga people who lived in Sri Lanka.

It is with their depiction in the *Mahābhārata* that the ideas associated with nagas change notably. As depicted in this work, the nagas are introduced in an antagonistic role due to their conflict with Garuda, which results in the nagas, as a whole, being depicted as just another sort of monster (Anonymous & Smith, 2009:5-7), with typical nagas seemingly being little more than intelligent snakes, while the *nagarajas* are vastly more powerful, with Vasuki having a role in the gods gaining immortality, Sesha supporting the whole Earth, and Takshaka being able to reduce whatever he bit to ashes. The difference between the *nagarajas* and the ordinary nagas seems to be somewhat equivalent to the difference between humans and deities, and this is further highlighted by how Takshaka is friends with Indra (Anonymous & Smith, 2009:9-10), and Vasuki is able to talk to the gods fairly easily. Takshaka, due to the heavy Indo-European influence on his depiction, gains most of the associations of the dragons of that tradition.

The *nagarajas* are also depicted as agents of cosmic order with Sesha supporting the Earth, Takshaka being an enforcer of Fate, and Vasuki being seemingly the *de facto* leader of the nagas, at least as depicted in the *Mahābhārata*, thus making them, ultimately, on the same side as the gods, despite being dragons. It is notable that, in the account of Takshaka wherein he shows the most Indo-European influence, namely the account of him stealing earrings from Uttara, the gods are actively against him (Anonymous & Smith, 2009:3-4), which suggests that the times when Takshaka is instead depicted as an ally of Indra more closely align with the earlier parts of the Naga tradition.

The depiction within the *Lotus Sutra* of the *nagarajas* adds to the *Mahābhārata*'s version, with the *nagarajas* being depicted as seekers of wisdom due to them coming to the Buddha to learn (Anonymous & Kern, 1909:5). If considered together with the *Mahābhārata*'s account of the *nagarajas*, this can be considered a form of character growth for them. The association between the Buddha and *nagarajas* is also shown in the *Mahāvamsa*, with the Buddha meeting with the Sri Lankan *nagarajas*, forcibly ending their feuds, and teaching them (Mahanama & Geiger, 2018:8). These episodes, along with Sesha's depiction within the *Mahābhārata* suggest an association in the Naga tradition between serpents and wisdom. This depiction is maintained in the South-East Asian depiction of nagas, such as Figure 9, which seems to have originally been surrounding an image of the Buddha in a recreation of the scene from the *Lotus Sutra*.

With the *nagarajas* becoming the *longwang*, they not only keep the association with power and wisdom, but these may potentially have been magnified, with the Dragon Kings of China and other East Asian cultures coming to control the seas of each direction (Roberts, 2010:36). This will be elaborated on below.

What this overall shows is that the Nagas underwent both physical and associational changes throughout time, with the physical ones being a transformation from regular humans, to supernatural humans, eventually gaining more heads and/or

becoming serpentine (category 4 or 8) beings, and then in East Asia adopting the form of local dragons, while those of South-East Asia were hybridised with other animals. The constant association seems to have been one of wisdom, or at least of the desire to gain wisdom initially, becoming general wisdom by the time they reached China at the very latest. They were also divided into two castes; the *nagarajas/longwangs*, and the regular *nagas/longs*, with the former being godlike in power and nature, while the latter were less so. Some, like Takshaka, also gained the traits of Indo-European dragons through their influence on the Indian subcontinent, but this is more prominent in certain specific stories than others.

Finally, we have the East Asian tradition. Discussing how they have changed over time is difficult due to the debate as to whether or not the stone pile depicted in Figure 10, dating to approximately 7,500-8,000 years ago, can be considered to be a dragon.

Assuming it is a dragon, which would make it the oldest known dragon depiction in the East Asian dragon tradition, and in the world as a whole, we can see that the dragons of this tradition started off with long, serpentine bodies, a head, and four legs. The head is poorly defined in Figure 10, though what looks like a crest and snout, similar to those of later East Asian dragons, can be made out. Overall, this depiction is similar to much more recent category 5 dragons, hence the confusion about whether or not it can be considered a depiction of a dragon, especially when compared to the artefact shown in Figure 11, which can be confirmed to be a dragon, and dates to between 4700 BCE and 2900 BCE. In contrast to Figure 10, the Hongshan pig-dragon shown in Figure 11 possesses no limbs, but has a well-defined head and hair, alongside their shared serpentine body. If the Chahai representation is to be taken as the first dragon, it would seem that the Hongshan dragon is an evolution to category 4, with depictions later re-evolving into category 5 dragons. If, however, the Chahai representation is not a dragon, then we instead get a much more linear progression from category 4 to category 5. Alternatively, dragons going from category 5 to 4 and back to 5 may be a more stylistic approach to the creation of artefacts, due to the presence of category 9 dragons alongside category 4 dragons from the start of the historic era (c. 1600 BCE) suggesting varying levels of stylisation in the depictions, and dragons always being considered to be category 5, despite depictions being categories 4 and 9. This is supported by Figure 18, which shows that, from 650 BCE onwards, the rise in category 5 depictions mirrored the decline in category 4 representations.

Regardless, as far as the artefacts show, once the historical period is reached with the Shang Dynasty, dragon representations are initially limited to categories 4 and 9. The category 4 dragons look much like the one shown in Figure 10, having a long, serpentine body, and pig-like head, though as Figure 26 shows they lacked hair. The category 9 dragons, while generally identical to the category 4 ones, are differentiated by the presence of a pair of legs. These category 4 and 9 dragons are also shown by Figure 20 as being horned, and by Figure 22 as possessing a single head. Figure 24 also shows the presence of a single tail on each of these dragons.

It is with the late Shang dynasty that change occurs, with Figure 18 showing the appearance of depictions of category 5 dragons for the first time since, potentially, the Chahai site almost 5,000 years earlier. The advent of the Zhou dynasty caused a notable increase in the proportion of category 4 depictions, while simultaneously coinciding with the presence of depictions of both hornless and horned dragons, which can potentially be attributed to the change in regime. Towards the end of the Western Zhou dynasty, category 5 dragons started becoming more popular, while the two-legged category 9 dragons became less so, and two-tailed dragons also started being depicted.

The Spring and Autumn period, beginning in 771 BCE, coincides with the appearance of two-headed dragon depictions in the archaeological record. These dragons, unlike the depictions of multi-headed dragons from the Indo-European and Naga traditions, instead of having multiple heads and necks emerging from the body in the same place, have their tails end in additional heads, thus also meaning that these dragons do not have tails in the conventional sense, and two-tailed dragon depictions quickly stopped being produced, though they were being produced again by the end of the Spring and Autumn period. A possible explanation for this is due to the growing influence of individual warlords who were trying to gain a greater level of independence from the Zhou King, and thus altered the physical depictions of dragons within their domains to be more unique to themselves. The beginning of the Spring and Autumn period is also notable for the proportions of haired dragons decreasing, only increasing again during the Warring States period. The second century of the Spring and Autumn period saw the introduction of symbolic dragons, headless, limbless, tailless dragons which existed to fill space on bronzeware, and their use on bronzeware fluctuated over the centuries. The Spring and Autumn period is also notable for being when some phoenix-dragon hybrid representations were made. These could have been made to represent the combining of different powers, potentially political, and later came to represent wholeness through depictions of dragons and phoenixes in Taoism as being representations of yang and yin respectively.

Category 5 dragons became much more common from the start of the Warring States period, eclipsing all other kinds by the time of the Qin dynasty.

During the Han dynasty, Buddhism first arrives in China, bringing with it concepts like the *longwang* and, continuing the trend going back to the Warring States period, category 5 dragons continue becoming more and more popular. As China's sphere of influence waxed and waned, these dragons spread to other regions, such as Korea and Vietnam, and from Korea the Buddhists brought them to Japan.

Under Mongol rule, these dragons were spread further west to places such as Iran, where they replaced local imagery with that of the East Asian tradition (Kadoi, 2009:20), and even later they appear in the artworks of the people of the Amur River as the heavenly dragon *mudur* (Figure 27), being stylised in such a way as to gain a resemblance to centipedes, and from there they seem to have reached the Ainu people of Hokkaido, with the storm dragon Kanna Kamui being similar in nature to *mudur*, suggesting him to be a reflex of this other dragon (Philippi, 1979:149-153).

Kanna Kamui, despite being a dragon, is also depicted as being able to stand in a chariot (Philippi, 1979:152), with the overall impression being that he stands on his rear legs while using his front to throw lightning. This could be indicative of syncretisation between an earlier Ainu storm deity who, like the other deities, rode a flying chariot, and *mudur* to create Kanna Kamui.

The depiction of category 5 dragons being spread as a result of the Mongol conquests is supported by the writings of de Plancy, who in his infamous *Dictionnaire Infernal*, makes mention of a dragon called Altangatufun, who he says was worshipped by the Kalmyks (1863:23), a Mongol people who, with the Mongol conquests, came to be the only Mongol people living within Europe. De Plancy describes Altangatufun as a four-legged serpent (1863:23), with this depiction fitting within the bounds of category 5 dragons. De Plancy mentions a legend about how the image of this dragon was believed to grant invulnerability (1863:23). Now, it should be noted that this dragon is considered to be a European dragon, so it shall not be dwelt on, but suffice to say, it further demonstrates the spread of category 5 dragons under the Mongols.

In terms of their associations, these dragons seem to have changed dramatically over time. According to Chung, Han scholar Wang Chong stated they started off being considered bestial creatures, which humans would farm for meat, and that this depiction only began changing with the introduction of Buddhism, taking until the East Han dynasty at least to fully change, with *long* then being considered wise and powerful protectors of treasure as a result of influence from the Naga tradition (Chung, 1998:135). This is at odds with what is recorded in the literary record though: according to the *I Ching*, even in the Western Zhou dynasty dragons were depicted as magical, heavenly beings superior to humanity and stating that it was in even earlier times that they first became associated with royalty and wisdom (Anonymous & Legge, 2020:96), which would suggest that Chung, despite quoting Wang Chong, is trying to further the India-centric bias present in his work. The *I Ching*, in its description of the Four Symbols of Chinese astrology, includes the Azure Dragon as one of the determiners of universal right and wrong (Anonymous & Legge, 2020:347), though it should be noted that the information on the Four Symbols is a later addition to the text, though still predating the Qin Dynasty. Five-toed category 5 dragons of this tradition also became associated, in China and also later amongst the Mongols after their conquest, with rulership (Kadoi, 2009:20).

Overall, in terms of physical changes, while the degree to which the forms of these dragons have changed in peoples' perceptions is debatable, the material representations of them have undergone many changes, with this work focusing on the pre-Han dynasty changes. The constants seem to be their serpentine body shape, and the pig-like structure of their heads, with everything else varying in their depictions. Over time, though, their forms become much more standardized, becoming category 5 dragons with horns, a single tail, four limbs, a pig-like head, and some degree of hair, and it was this image that was spread throughout the Chinese world. In terms of their associations, the changes have been about as drastic as the variations of their physical forms have been, with them seemingly originating in

thought as mere animals, before ending up as mystical, godlike beings of great wisdom and power, associated with royalty.

### To What Extent do the Changes in Dragons in Asia Demonstrate Diffusion Theory in Practice?

For this section, the focus will be on confirmed cases of diffusion, not on hypothesized ones.

To begin with, we have the *nagarajas/longwangs*. While the concept of the *nagaraja* as the rulers of the nagas likely originated in Sri Lanka or southern India, it is their depictions from further north in India that led to the inception of the *longwang*. As shown in the *Lotus Sutra*, the association between the nagas, particularly the *nagarajas*, and wisdom led to them being associated with Buddhism (Anonymous & Kern, 1909:5), something demonstrated both in the *Lotus Sutra* and the *Mahavamsa*, both of which are part of the Buddhist literary corpus. Buddhism spread from India to China during the Han dynasty (hence why the Qin dynasty was the cut-off point for case study 3), and with the Buddhists came their stories of the *nagarajas*, who in China became the *longwang*, the two terms being cognates of each other, and certain individual *nagarajas*, such as Nanda, becoming identified as *longwang* (Roberts, 2010:34). Coinciding with this event of diffusion is the advent of a number of Chinese legends featuring malevolent dragons living in the mountains, which are identified as originating as naga legends from India (Roberts, 2010:32). Chung also identifies this example of diffusion as the reason why *long* became associated with wisdom, and why they came to be considered to be intelligent creatures, rather than animals, and further to this, he identifies this example of diffusion as the reason why the *long* came to be considered special to the imperial household (1998:135).

What this shows is an example of religion-based diffusion from India to China which, at the very least, had an impact on local beliefs about dragons and, at most, completely redefined beliefs involving them. While I personally consider some of Chung's suggestions to be a bit far-fetched, at least some of what he says is likely based on the truth, with his references to the works of the ancient scholar Wang Chong suggests that the change in association of *longs* from animals to wise, mythical creatures being due to diffusion via Buddhism is at least somewhat accurate.

A second example of demonstrable, practical diffusion shown in this work is the changing depiction of the Azhdaha from a category 2 dragon to one of category 5. As Kadoi admits, in east Iran in particular azhdahas became category 5 dragons earlier than in the rest of Iran, with this being chalked up to the influence of China on the region which, due to its proximity, was likely via trade, but later spread throughout Iran with the Mongol invasion (2009:20). The main initial effect of this was azhdahas looking different in depictions, with Figure 3 being an example of an azhdaha after this example of diffusion occurred. As Kadoi has also mentioned, though, over time depictions changed further, to the point of the azhdahas adopting more of the associations of dragons from China, instead of just their physical appearances (2009:208).

What this demonstrates is an example of both economic diffusion, and later of conquest-based diffusion. The import of silk with dragon-and-cloud depictions on it is what caused the initial bout of diffusion, with the dragons ending up on the resulting clothing and furnishings made from this silk (2009:20). Over time this led to an abundance of Chinese images being depicted, initially, alongside the more traditional azhdaha depictions, which were phased out over time as the Chinese images became more common. The conquest by the Mongols brought forced change to Iran, with the East Asian depictions being popular amongst the new nobility. As such, goods made for said nobility had to be of the fashionable style, and those wanting to be on good terms with the new nobility also had to adopt the new style, leading to category 5 azhdahas replacing the older category 2 azhdahas in all levels of society.

Another case of confirmed diffusion is shown in the Sumatran account of the slaying of the naga of Mt. Marapi (Wessing, 2006:211). The details of this account, including the enlargement of the island of Sumatra with the naga's death, as well as the story being entirely localised to Sumatra, means that this legend is an example of diffusion between the naga and Austronesian traditions, as the specific, localised nature of the legend means that it originated on the island, thus meaning that it is a case of an Austronesian dragon being given the name and form of a naga once the naga tradition entered the area and began subsuming the Austronesian dragons there.

A final case of practical diffusion demonstrated in the case studies was between the Ainu and Yamato peoples of Japan. Through the etymology of "Yamata no Orochi" and a comparison of those terms in the with those used in the *Nihon Shoki* (Yasumaro, et al., 1982:73), we get the strong indication that the Yamato people considered Orochi to have been the result of diffusion from the Ainu. The exact nature of this diffusion is unknown, but the notable conflicts between the Yamato and Ainu peoples seem to have started after the creation of the *Kojiki*, suggesting it was not caused by war, though conflicts before this period are mentioned in the later *Nihon Shoki*, written almost a decade later, suggesting that it was possible that the early phases of such conflicts may have already begun.

It is interesting to note that, in the *Kojiki*, Orochi is considered separately from other dragons, who are generally known in this text as *wani* (Yasumaro, et al., 1982:146-154) and are category 1 dragons, whereas Orochi is category 10. This separation may be an indicator that the dragons of the two peoples were considered to be separate types of monsters, only superficially similar. Of the *wani*, the word is generally used to indicate crocodiles, thus indicating a more crocodilian appearance, whereas Orochi is explicitly identified as a serpent. This could therefore mean that the reason for the separation could be based on form and not necessarily on origin. It can safely be said, though, that Orochi was not brought to Japan by Buddhists, as other dragons such as the Dragon Kings were. This is due to the nature of the *Kojiki* itself: the *Kojiki* was written as a response to Buddhism bringing in an influx of new myths and legends to Japan, and was intended to be a definitive canon of the legends of the Yamato people, with the compilers collecting a number of versions of each legend and determining which ones were the oldest and, from their perspective, most accurate. As such, it cannot have been a Buddhist import as, otherwise, it would not have been considered for inclusion within the *Kojiki*, thus supporting the

idea that Orochi was instead an import from the Ainu. Unfortunately, we cannot reconstruct the Ainu origin of Orochi to the degree necessary to understand fully how the act of diffusion impacted Orochi, but by comparing him to *Sak-somo-ayep*, a closely related Ainu dragon, we can see that the act of diffusion likely had at least some impact on Orochi in terms of appearance and associations.

With these four examples of confirmed diffusion, we can see that diffusion has influenced Asian dragons to a certain extent at least, and this extent grows larger if we consider the hypothetical diffusions discussed in the previous section in order to explain how dragon depictions of different traditions have ended up where they have. Ultimately, though, we cannot confirm most of these hypotheses without direct evidence supporting them, so we unfortunately are limited in our ability to determine the extent to which changes were as a result of diffusion, and not due to evolution within a given location. We can safely say, though, that the westward spread of category 5 dragons from the medieval period, along with the changes in the ideas about wisdom and power relating to *long* in China during the Han dynasty were due to diffusion, and these have certainly impacted dragon depictions in other parts of Asia that this work has not been able to focus on.

#### To What Extent can Changes in Dragon Distributions over Time be Explained Through Diffusion Theory?

This question focuses mostly on where dragons of different traditions and, within those traditions, of different categories originated, where they have ended up, and how this can be explained through diffusion theory.

The Indo-European tradition originated outside Asia, and the Indo-Iranian branch, including the sub-branch that led to Orochi and *Sak-somo-ayep* in Japan, which this work has focused on, likely entered Asia through the north-west, through Russia and Kazakhstan, before moving south through central Asia, after which it diverges into the traditions of the Indo-Aryans and the Iranians. A separate branch, the source of the South West Asian dragons, is presumed to have arrived through some other channel, presumably through Anatolia, though of this we cannot be sure without further research into a full reconstruction of how Indo-European dragon myths are related to each other. Since the Indo-European homeland was not in Asia, diffusion via migrating groups and peoples coming into contact with these groups is the only real explanation for how their dragon legends spread throughout the Indian subcontinent and the Middle East. To clarify, this does not mean that all the people with dragon legends that fall under the Indo-European tradition are Indo-European peoples: instead, some of them instead adopted Indo-European legends through diffusion resulting from contact either from Indo-European groups, or from non-Indo-Europeans who had already adopted the Indo-European legends. The dragons of this tradition, originating as category 4 and possibly 1 dragons, therefore only appeared in the region through diffusion. Of course, there was variation, and the tradition even in its early days also contained category 2 (e.g. *Mushussu*), category 3 (e.g. Marduk), and category 5 (e.g. Vritra) dragons, whose distributions only emerged through diffusion theory. They later appear to have contributed to the spread of nagas into China, due to the depictions of evil dragons in China only becoming present due to the introduction of Buddhism

with an Indo-European connection becoming more likely due to their conflicts with Leigong, a storm deity identified with the Hindu Garuda (Roberts, 2010:34), himself associated with Indra, the defeater of Vritra.

The other traditions we can discuss, the Naga and East Asian ones, at the very least have origins within Asia.

The Naga tradition originated within southern India and Sri Lanka, as these were the places where the Naga people the dragons were based on appear to have lived. Over time, they spread throughout the subcontinent, with this spread being considered a form of diffusion, due to them being brought from the south to the north, likely through the spread of religious ideas and/or stories such as the *Ramayana*. They also went from category 3 dragons to category 8, likely through the influence of the Indo-European tradition's dragons being category 4 serpents for the most part and them being conflated with the naga serpent-people. Takshaka being identifiable as a typical Indo-European dragon in at least one instance can be considered at least something of proof for this. The differences between the *Mahābhārata*'s depiction and later depictions from Kushan (Figure 5) suggests either that the category 4/8 depiction was not universal in northern India, or later influence by depictions of dragons such as Zahhak contributed to their change in appearance. Either way, this shows the impact of diffusion on the distributions of category 3 and 4/8 dragons of the Naga tradition within the northern parts of the Indian subcontinent.

Despite the diffusion from India to China as a result of Buddhism, it does not seem to have had much of an impact on dragon distributions there, though it seems to have acted as a trigger for some later instances of diffusion, as will be discussed below. The presence of nagas in south-east Asia also suggests diffusion ultimately from India in that direction, bringing nagas along with the *makara*, if Figure 9 is anything to go by. This brings the tradition of dragons to south-east Asia, but these nagas specifically seem to physically have been influenced either by the *makara*, or by local Austronesian dragons, which they seem to have generally displaced in the cultures of the region. This results in the dragons of this region being a mixture of category 8, as seen in the Cambodian legend (Wessing, 2006:211), and category 3, as seen in Figure 9. This is a change from the pre-existing dragons in South-East Asia, which seem to generally be category 4 wyrms (Blench, 2008:7).

In terms of the East Asian tradition, the tradition as a whole can be seen to have originated in the north-eastern parts of what is now China, before slowly spreading further as what was defined as "China" grew, thus suggesting a diffusionist model for how they spread through the region. The exact categories seem to have fluctuated until the late 1<sup>st</sup> millennium BCE, eventually settling, generally, with category 5 by the time Buddhism was introduced into the region.

While the introduction of Buddhism was an example of diffusion, it did not really impact dragon distributions in China, as the introduced nagas were reimagined as *longs*. Buddhism did help cause a diffusion of dragons of this category beyond China though, first to Korea and Vietnam, and later to Japan, though with slight morphological differences, with the Japanese ones potentially being a contributing factor to the creation of the *Kojiki*.

Diffusion resulting from trade with China is responsible for the initial replacement of category 2 dragons in Iran with category 5, with the Mongol conquest speeding this up until they were almost all replaced (Kadoi, 2009:20), thus showing that diffusion was not just causing a spread, but in certain cases was also causing change and displacement.

### To What Extent did the Indo-European Tradition Influence the Development of Dragon Depictions in China?

This is a question that scholars have attempted to answer for over 100 years, mostly through hyperdiffusionist arguments. If Gould is to be believed, then the concept of dragons as a whole originated in China, as a species of now-extinct animals, before spreading to the rest of the world (1886:259), which would mean that, instead of Indo-European dragons influencing depictions in China, it would be Chinese depictions influencing those of the Indo-Europeans.

Conversely, Smith argues that the concept of the dragon evolved from the Ancient Egyptian legend about the conflicts between Horus and Set (1919:78). The Ancient Egyptian dragon Apep is also an Indo-European dragon, being a reflex of \*ng<sup>w</sup>hi depicted, in his earliest mentions at least, in a notably similar way to Vritra, being a dragon who imprisoned the waters of the world. This therefore shows that Egypt's dragon depictions fall under this tradition at least in part. As such, if one was to accept Smith's argument, then it could be argued that China's dragon depictions are solely resulting from Indo-European tradition.

As Barnard states, though, that diffusion aside, the dragon traditions of different parts of the world are so different that there is no way for this hyperdiffusionist view to be accurate, and that while different traditions may have influenced each other (as I hope my work has shown), the different traditions all originated separately (1964:422). As such it truly becomes a question, following Barnard's train of thought, of "What Indo-European influence was there on the depictions of dragons in China?", instead of one along the lines of "Which tradition grew from the other?"

It should also be noted that this research question does not refer to the entire East Asian tradition as being influenced by Indo-European dragons, but instead focuses solely on the geographical region of China, hence it is not primarily about the influences of different traditions on each other, but the influence of a single tradition on a specific location.

As far as I have been able to determine, there have been potentially two major cases of Indo-European influence on China for the purposes of this work. The most well-known of these was the introduction of Buddhism to China, and the other involves the storm god Leigong.

The introduction of Buddhism in China, as has previously been discussed, is linked to major changes in the portrayal of dragons in China. The most notable difference, according to Chung at least, is *long* becoming considered intelligent creatures as a result of influence from the Buddhist nagas (1998:135), themselves having been influenced by the Indo-European dragons in pre-Buddhist times before

the composition of the *Mahābhārata*, as shown in the *Mahābhārata*'s depiction of Takshaka. Buddhism also caused the appearance of legends of malevolent mountain dragons, in contrast to the more benevolent water dragons in other regions of China (Roberts, 2010:34), with malevolent dragons being a key feature of the Indo-European dragon tradition. The key reason malevolent dragons in Buddhism can be identified with the Indo-European tradition instead of the Naga tradition is because in the accounts of nagas from the Indian subcontinent, the episodes when the nagas are being actively malevolent, such as in the *Mahābhārata*'s story of Uttanka and the earrings (Anonymous & Smith, 2009:3-4) and the story of the treatment of Garuda's family by the nagas (Anonymous & Smith, 2009:5-7), they follow the pattern of the Indo-European dragon story (Lincoln, 1976:60-61), whereas when they are not being malevolent, they do not follow this pattern. This therefore suggests that the accounts of the evil nagas were most heavily influenced by the Indo-European tradition, whereas the less malevolent (while not necessarily benevolent) depictions are more likely to have stronger influences from the naga tradition. Due to this, the malevolent dragons of Chinese mythology that arose as a result of Buddhism can be attributed to the influence of the Indo-European tradition instead of that of the naga tradition.

The next key influence of Buddhism on Chinese dragon depictions is the association between dragons and the imperial dynasty, which Chung associates with post-Buddhist dragons gaining a fierce look in their physical depictions, something lacked by pre-Buddhist depictions of dragons (1998:135). Like the association with intelligence, the main Indo-European influence here is the influence of Indo-European dragons on Buddhism, and I personally am of the view that this feature can be more strongly associated with the Naga tradition than the Indo-European one due to the *nagarajas* being considered to rule kingdoms, a feature generally lacking in dragons of the Indo-Iranian tradition before the medieval period.

The final key influence of Buddhism on the depictions of dragons in China is the *longwang*, who are identified as reflexes of the *nagarajas* of the Indian subcontinent. The Indo-European tradition influenced the *nagarajas* to an extent, that much is certain. This can be seen most clearly in the differences in depictions of Takshaka, Vasuki, and Sesha in the *Mahābhārata*, where Takshaka, as shown on Table 1, displays strong Indo-European influence, whereas the other two do not. The concept of the *nagarajas* though can be identified with the naga tradition, owing to their depictions in Sri Lanka's *Mahavamsa*, which can be seen to have relatively little Indo-European influence, with the depictions being more likely to reflect mythologised versions of the kingdoms of the historical naga people.

Of these different influences of Buddhism on Chinese dragons, the key one which shows Indo-European influence rather than Naga influence is the depictions of evil mountain dragons. These dragons were considered to be the enemies of Garuda (Roberts, 2010:34), who is depicted in the *Mahābhārata* as conflicting with the nagas. Garuda is associated with Indra, who Garuda is depicted in the *Mahābhārata* as being born to be an improved version of (Anonymous & Smith, 2009:7), suggesting that both are reflexes of a single earlier deity, with Garuda's conflicts with the naga species sharing a common origin with Indra's conflict with Vritra. With the introduction of Buddhism in China, Garuda was made the enemy of these malevolent

Chinese mountain dragons, suggesting an identification with the nagas in this generally Indo-European story. Garuda was later identified with the Chinese storm god Leigong, with him taking Garuda's place in some of these legends (Roberts, 2010:34). What this means is that the Chinese legends of malevolent *long* fighting against Garuda and, later, Leigong can be identified as an Indo-European influence on China's dragons, specifically with the ideas of these dragons being malevolent and the nature of their defeat.

This brings us to the potential second major Indo-European influence on dragons in China: Leigong himself. Leigong is a storm god armed with a mallet who, in one myth at least, is associated with the splitting of trees (Roberts, 2010:71). This alone causes him to appear to be a reflex of \*Perkwunos, the Proto-Indo-European storm god who, amongst other things, is associated with the splitting of trees with lightning (particularly oak trees) (West, 2006:240). Leigong, despite being a storm god, is also attributed with draconic physical features (Roberts, 2010:71), making him a category 3 dragon himself. As has been mentioned already, Leigong has been identified with Garuda in China, and has taken his place as the enemy of the evil *long*. Roberts mentions another account, though, of Leigong fighting against a draconic demon with the assistance of a hunter (2010:72). Though Roberts does not provide any information on the dating of this legend, the identification of the monster as a "demon lizard" (2010:72) instead of a *long* suggests it potentially predates the identification of *long* with nagas owing to the inconsistency it would otherwise cause in Roberts' work, and if it does not necessarily predate it, then it at least likely originated no later than the identification of nagas with *long*, with the difference in terminology likely being due to a difference in origin in that case. Not only does the story of Leigong and the draconic demon fit the general pattern of Indo-European dragon-slaying myths identified by Lincoln (1976:60-61), this also provides information on a potential relationship between \*Perkwunos and \*Trito- in the Proto-Indo-European dragon-slaying myth, due to the presence of both the storm god and human hero in this myth, something the reconstructions by Lincoln and West have been unable to suitably explain. This relationship being shown and the potential origin of it indicates that it is most likely of an early divergence from the Proto-Indo-European original, owing to how most branches settle on either the god or the human hero, and is thus likely not part of the Indo-Iranian tradition, but of a separate Indo-European lineage. This then begs the question of how this influence could have come about. While we do not know for sure, a potential answer is the Tocharian people of western China, an Indo-European culture thought to have been descended from one of the earliest offshoots of the Proto-Indo-Europeans. It is entirely possible that Leigong originated as their storm god, who was then adopted into the early Chinese pantheon through diffusion with their Tocharian neighbours. As such, it can be argued that the introduction of Leigong to the Chinese pantheon, with his accompanying story of him slaying a draconic demon, shows an Indo-European influence on Chinese dragon depictions, through the introduction of a type of dragon separate from the *long*. What this means is that Indo-European influence seems to have caused an entirely new type of draconic being to be depicted within China, showing an increased extent of Indo-European influence on dragon depictions in the region than initially thought.

## Where is there a General Lack of Information on Asian Dragons?

As has been previously discussed, the main areas where information on dragons is available are south-western Asia, at least as far as ancient depictions of dragons go, as well as the Iranian Plateau, Indian subcontinent, China, Korea, and Japan. The other regions; central Asia, Siberia, the Arabian Peninsula, and south-eastern Asia, are less well-studied in terms of their dragons.

Regarding the dragons of the Iranian Plateau, the older information is somewhat more accessible, as well as information from the eastern regions of what is now Iran. Information from other regions of the Plateau is harder to find, and a number of primary textual sources have not been translated into English yet, creating localised gaps in our wider knowledge. For the purposes of this work, that mostly translated into issues with knowledge about Azhdahas

With south-east Asia, some information at least is available, but tends to be limited to depictions of nagas, as well as modern version of older legends which generally cannot be used for academic works. As such, I have been unable to discuss Austronesian dragons in any major degree of detail, as there has been not enough information available that I have deemed suitable, with what I could find being either too modern, or having no dating associated with it. The only exceptions to this are the legends collected by Wessing about naga legends in south-east Asia, all of which depict dragons through the lens of the Naga tradition, though the legends themselves also belong to the Indo-European and Austronesian traditions. As such, more information on the dragons in this region is necessary in order for such a discussion to be had.

For Siberian dragons, information available on them is incredibly limited, becoming even more so the further north one goes. Some information on the dragons of the people around the Amur River is available, but is difficult to find and, of what I was able to find, I had to translate much of it into English. Beyond the Amur River, I was able to find very little information from Siberia, which meant I was unable to discuss the Siberian tradition of dragons, owing to only having access to information about a Chinese reflex from this tradition.

Information on Arabic dragons is also fairly limited and, while some certainly is available, it is not the most easily accessible to western scholars. The issue with these dragons is, when it comes to written sources at least, the ambiguity about whether or not the sources are truly Arabic, or whether they were from nearby regions under Arabic control. While this may initially seem like a nonissue, calling the dragons of places conquered by the Arabs Arabic dragons can be compared to calling Indian dragons in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries British dragons, due to India being under British rule at the time. As such, further research into the dragons of the Arabian peninsula is almost a necessity to get any clear picture about them.

Central Asia rivals Siberia in terms of a lack of information being available to western scholars, and I was unable to find any suitable information for this project. While my conclusions about diffusion in Asia suggest that the dragons of this region have both Indo-European and East Asian influence in much the same way as those of

the Iranian Plateau, I am unable to determine which tradition is most prominent, or any specific information about them. As things currently stand, it would likely require travelling to central Asia in order to get accurate information on the depictions of dragons there, owing to how there is little information available even in the most questionable sources.

What this should demonstrate is that, while this project aims to discuss the dragons of Asia, in reality it is only able to discuss the dragons of certain parts of Asia due to there being severe limitations in the information available on this region to western scholars. In order to get suitable information, it would likely require travelling to these areas, some of which, like Siberia, are difficult to access in the current geopolitical climate of the world. As a result, I would deem it unlikely that suitable information becomes available in the near future.

### Can we Consider ‘Dragons’ from Each of the Different Traditions to be the Same Sort of Mythical Creature?

This is the final research question of this work, and it is both the easiest and most challenging to answer, with the answer depending on whether or not one focuses solely on their individual origins, or if one also considers later developments.

On the one hand, it is possible to consider the different traditions of dragons to be different types of mythical creatures due to their unique origins. As has been previously discussed, in line with Barnard’s initial conclusions about dragons on a global scale (1964:422), dragons had a number of separate, isolated origin points, with the ones focused on in this project being the Indo-European homeland (generally considered to be Ukraine and south-west Russia), southern India and Sri Lanka, and north-eastern China, with additional Asian dragon origin points that we are lacking information on being in western Siberia and Taiwan. Parts of the extreme south-west of Asia may also have been influenced by an origin somewhere in Africa, and there is some evidence to suggest a pre-Indo-European origin in Mesopotamia as well.

These origins were all, initially at least, separate, and thus their individual dragons can all be considered to be different, wholly separate entities originally, with the reconstructed \*ng<sup>w</sup>hi being a giant, three-headed serpent with possibly three tails as well, the nagas being a snake-worshipping human ethnic group, and the earliest *long* either being a serpent with a pig-like head, or being an early version of a category 5 dragon, depending on whether or not the Chahai figure is considered a dragon or merely a dragon-like creature. While the serpentine aspect is present in one form or another in each of these, that is as far as the similarities go, with the original nagas being particularly different from the other two discussed here. As such, if one was to consider dragons solely based on their origins, they can be considered to be separate creatures.

Furthermore, even in the modern day there are numerous instances of “western” dragons being considered separately from nagas and “eastern” dragons by the general populus, owing to their distinct typical physical features, with “dragon” being used as a term for stereotypical “western” and “eastern” dragons merely due to them both being generally large, mythical reptiles, with nagas not even being

considered dragons by many, and dragons from the other traditions mentioned not even being known to most.

On the other hand, though, when one considers the later impacts of diffusion amongst the different dragon origins, a wholly separate image is created: particularly with the depictions of Nagas, they became merged with both Indo-European dragons, as seen with Takshaka, and with East Asian dragons, as seen with the *longwang*. The result is that, with these three traditions in particular, there is a continuum of dragons changing from Indo-European, to Naga, and then to East Asian. As for the other traditions mentioned, the unique features of the Nagas of south-east Asia suggest a similar merging with dragons of the Austronesian tradition, something further supported by Wessing's account of the Sumatran naga (2006:211). Furthermore, the hypothetical Mesopotamian tradition was subsumed by the Indo-European tradition once it entered the region, and in south-west Asia Indo-European dragons existed alongside dragons likely of an African tradition which were likely influencing each other, as seen with the changing depictions of Apep, thus showing more of a continuum of dragons slowly changing from one tradition to another thanks to diffusion instead of rigidly defined limits for where the dragons of different traditions are depicted. The only tradition that I have been unable to find evidence for this blurring of tradition lines for is the Siberian tradition, with the evidence for them in Chinese mythology showing them as being wholly separate entities from the dragons of the East Asian tradition (Laufer & Pelliot, 1913:329), similar to how Leigong's demonic lizard is considered (Roberts, 2010:71-72). As a whole though, this continuum of dragon traditions merging does allow the dragons of different traditions within Asia at least to all be considered the same type of mythical creature.

As this should have shown, the answer to this question really depends on how one considers the different traditions, either viewing them at their origins, or considering the later developments. In the former, they are separate, but in the latter, they can all be equated as the same mythical creature.

## CONCLUSION

What my work has shown overall through the case studies and discussion is that, over the thousands of years since their initial inception in each of their separate origin points, the dragons of Asia have undergone many changes, both in physical form and in the ideas associated with them. While I have not been able to demonstrate this for every dragon tradition in Asia due to the lack of information available for some of them, it is my hope that, for the Indo-European, Naga, and East Asian traditions at least, I have demonstrated this in a way acceptable to the readers of this work.

I have shown that the dragons of traditions viewed for this work's case studies have changed drastically, with the changes generally being linked in some way to a change in geographical location, such as the change from the category 4/8 *nagarajas* to category 5 *longwangs*, being linked to the change in geographical location from India to China. Even the change from Azi Dahaka to the azhdahas within Iran can be linked to a likely geographical change of where *mushussu*-like dragons from Iraq were being depicted, based on the similarities between these Mesopotamian dragons (Figure 1) and Sassanian azhdahas (Figure 2). As such, the changes over time and the changes across geographical area are intrinsically linked, though the explanations for such changes are not necessarily the most obvious.

This links to one of the key points of this work: the importance of context. Context is vitally important for understanding just about anything relating to human cultures because very little happens randomly: in general, most things have an identifiable cause, though generally context is required to determine what this cause is. This is as true for the evolution of dragon depictions as anything else. With the example of the *mushussu* and the azhdahas, the context that provides the information about the cause in the change in how the Iranian dragons were depicted is the knowledge about dragon depictions in surrounding areas, and further to that, a potential cause for why the *mushussu* depictions were able to influence the azhdaha ones can be inferred to be the conquest of Mesopotamia by various Iranian empires over the centuries, such as the Achaemenids, Parthians, and Sassanids.

The importance of context is a key point for this work due to the lack of information and context on the dragons of the areas where, as mentioned already, we know little about local dragon depictions, namely those of Siberia, the Arabic Peninsula, central Asia, and south-east Asia. The influence of and on the dragons of these places is nigh-impossible to determine due to the lack of available information, as are the changes within these regions.

Of course, this is not to say that my work has provided no information on these regions whatsoever. Through looking at the various sub-branches of the Indo-Iranian branch of the Indo-European tradition, we can see that the Proto-Indo-Iranian people likely moved through central Asia, and thus there is a likelihood that they influenced the dragon myths in this region, and likewise, the sub-branch that eventually led to the Indo-European dragons Yamata no Orochi and *Sak-somo-ayep* in the traditions of the Yamato and Ainu peoples are presumably a result of eastward diffusion which, based solely on geography, may have come through parts of what is now Russia

and/or Mongolia. Based on the differences between the Japanese stories and the story of Leigong and the draconic demon (Roberts, 2010:72) in terms of the use of drinks, it is suggestive of two separate instances of eastwards diffusion, with the Leigong story not belonging to the Indo-Iranian branch of Indo-European dragon legends, but instead to a different branch.

Furthermore, the trade between China and Iran that led to depictions of *azhdahas* gaining the physical characteristics of category 5 *longs* (Kadoi, 2009:20) likely also happened in central Asia as well, which would suggest that diffusion from the East Asian tradition occurred towards central Asia in much the same way as Iran and, like with Iran, the eventual Mongol conquest in the 13<sup>th</sup> century presumably influenced the locals in much the same way, likely resulting in similar prominence of category 5 dragons in the region.

With regards to south-east Asia, we can at least determine the likely traditions, for the most part: it was likely originally dragons of the Austronesian tradition, which were later replaced and/or merged with those of the Naga tradition, owing to the unique features of the late naga depictions of this area, though the exact nature of these earlier Austronesian dragons cannot be determined from these later depictions due to the possibility of influence from other Indic dragons, such as the *makara*, instead of Austronesian ones, as well as the lack of information given about the merged dragon depictions in academic literature besides the dragon being referred to as “naga” (Wessing, 2006:211).

The main gaps in our knowledge, of which little can be said with any certainty, lie in the Arabian peninsula and in Siberia. A Siberian tradition of dragons exists, with the *yin shu* of China being a mole-like reflex of the Siberian dragons (Laufer & Pelliot, 1913:329), but beyond this Chinese monster, little can be said at all about this dragon, and it is unknown what influence, if any, this tradition had on dragons of nearby traditions, or of these other traditions on the Siberian dragons. As for the Arabian peninsula’s dragons, dragons otherwise identified as being from the Arabian peninsula tend to be from sources that were actually composed in other parts of the Middle East, thus making it difficult to determine what, if anything, can truly be said about these dragons.

What this means overall is that, beyond inferences based on what is known about dragons in other regions, we ultimately know next to nothing about the dragons of these parts of Asia, instead having our scientific knowledge limited to the regions which are significantly better studied.

My work has also demonstrated, hopefully to a convincing degree, that cultural diffusion theory is not just a viable archaeological theory for the transmission of ideas, goods, etc., but is one which has demonstrably occurred in the past, with the spread of Buddhism and the effects this had on depictions of Chinese *long* being the key example for this. As such, this work demonstrates that, as diffusion theory is a legitimate, demonstrable theory, it should not be stigmatised in the wider context of archaeology.

So now the task is to answer the overall key question of this research, “How have dragons in Asia changed over time and over geographical area?”

As I have hopefully made clear in the discussion section of this work, this is an incredibly difficult question to answer due to how broad a question it is, and so I will break it down as much as I can to answer it satisfactorily.

The dragons of the Indo-European tradition, having originated, as far as we are aware, as a single, monstrous, three-headed, serpentine, water-associated dragon likely originating in ancient eastern Europe, and have since diverged along a number of lines, with at least three of these being present in Asia, and with this branching from the original, the question can be more easily approached.

The first branch is one which spread through ancient Mesopotamia, the Levant, and into Egypt, likely via Anatolia based on geographical features of the region. Genetically, most of these peoples are not Indo-European, suggesting an idea-based diffusion as opposed to a population-based one. These dragons maintain a strong connection to water, as shown with Tiamat being considered a deity of salt water. These dragons show great physical variation, with the *mushussu* (Figure 1) being a category 2 hybrid of snake, horse, lion, and eagle, while Tiamat is depicted as a category 1 venomous dragon with a notable tail. Other dragons of this branch, such as Apep, are massive category 4 dragons, and a number of others which were not focused on in this work, owing to its focus more on the Indo-Iranian tradition, are multiheaded dragons of both categories 1 and 4. Like the Proto-Indo-European \**ng<sup>w</sup>hi*, these dragons are generally depicted as evil creatures to be overcome by a hero, though the *mushussu* notably becomes a sacred creature after its defeat. What this shows is that this branch of the Indo-European tradition provides dragons that, while generally associated with water, are also very varied in other aspects of their appearance, while their associated ideas tend to be more constant, though with some inevitable notable exceptions.

The second branch is the branch that led to the draconic demon fought by Leigong. Little is known about this dragon, other than that it was considered to be a “lizard” in terms of appearance, and that it had the ability to assume human form (Roberts, 2010:72). From this, it can be assumed to be a category 5 dragon, owing to that being the closest to the traditional “lizard” body type, and it seems to have gained magical abilities, which may have come from influence from China’s *long*, or else have inspired this later feature. Little else is known about this branch, and it is mainly of importance due to the light it sheds on certain aspects of the Proto-Indo-European dragon-slaying story.

The final branch, the one this work focused on, is the Indo-Iranian branch, which my work has determined also has a sub-branch that appears in Japan. While many of the people of the Indian subcontinent and Iranian plateau are Indo-Europeans, the Ainu and Yamato peoples are not, thus indicating that the sub-branch in Japan occurred through idea-based diffusion instead of the movement of people, unlike with the other sub-branch. Unlike the Near Eastern branch of the Indo-European tradition, the Indo-Iranian dragons tend to keep their earlier serpentine body shape for longer, with both Yamata no Orochi and Azi Dahaka being multi-headed

serpentine dragons with a number of tails equal to their number of heads. Vritra is the key exception to this, being depicted even in the earliest texts as either a category 5 or 9 dragon who had lost all their limbs, making them resemble a serpentine category 4 dragon. The changes to these dragons were a relatively later occurrence, with reflexes of Azi Dahaka becoming category 2 dragons as a likely result of influence from Mesopotamian dragons, and their later change to category 5 dragons being a result of Chinese influence, both before and after the Mongol conquest of Iran. Other reflexes of Azi Dahaka became more humanlike as a result of historicising Azi Dahaka, and likely due to the “Dahaka” part of his name, which one potential etymology has as meaning “manlike”. With regards to the Japanese sub-branch, the differences in the number of heads from \*ṅ<sup>w</sup>hi suggest an attempt at normalisation in the case of *Sak-somo-ayep*, due to polycephaly being rare, despite snakes being one of the species it is most common in, and in the case of Yamata no Orochi, the change to the number eight instead of three likely has a cultural explanation local to Japan. With the sole exception of potential good dragons mentioned in the story of *Sak-somo-ayep* (Philippi, 1979:161), these Indo-Iranian dragons seem to be universally depicted as evil, and seem to desire one thing or another, generally wealth of some description or women.

The dragons of the Naga tradition, by comparison, underwent debatably more change, though this can be argued to be a result of them historically acting as the key bridge between the dragons of different traditions. They most likely originated as an ethnic group from what is now southern India and Sri Lanka (Manogaran, 1987:21). In early texts, as well as those from Sri Lanka itself, they are depicted as being generally human-like, though with the ability to breathe underwater, with at least one naga kingdom being noted in the *Mahavamsa* as being under the sea.

In northern India, likely due to the influence of the Indo-European tradition, they became notably more serpentine, though seemingly still retained some human physical characteristics. Later, in the north-west of the Indian subcontinent, they became human-like again, though with additional serpentine heads, similar to the nearby depictions of Zahhak and Azhdahak. In east India, though, they became multi-headed serpents.

With the introduction of Buddhism, they quickly became associated with the Buddha, as shown in the texts of the *Mahavamsa* and the *Lotus Sutra*, particularly the *nagarajas*, and it was this depiction which, when brought to China, led to the *longwang* becoming as it is known today and, if Chung is correct, to dragons of the East Asian tradition being considered to be more than just animals (1998:135). In south-east Asia, nagas predominantly became considered females and, as Figure 9 shows, in places such as Thailand they became notably less human, likely as a result of merging with the local Austronesian dragons, as demonstrated in the Sumatran dragon-slaying story (Wessing, 2006:211). In terms of associations, they were primarily associated with water and wisdom in sources closest to the Naga homeland, and these associations were generally maintained as they spread. In some cases, such as Takshaka in the *Mahābhārata*, they gained associations of dragons the Indic peoples came across, with Takshaka notably gaining many of the associations of Indo-European dragons. The *nagarajas*, the most powerful of the nagas, became

godlike beings after contact with the Indo-European tradition, leading to such an association amongst the East Asian *longwang* and equivalents. In south-east Asia, as shown by the Cambodian story, they became associated with kingship, and Wessing gives more examples of this association throughout south-eastern Asia (2006:211).

Finally, we have the dragons of the East Asian tradition. If the Chahai stones are accepted as a dragon, then their physical forms ultimately have not changed much in approximately 8,000 years, though their depictions on artefacts have fluctuated between categories 4, 5, and 9. If the Chahai stones are not accepted as a dragon, they then initially began as legless, category 4 dragons, though with heads almost identical to those of modern dragons of this tradition. Some later depictions show category 9 dragons with two legs as well. It is really from the Warring States period of China onwards that the majority of *long* depictions become the category 5 dragons as are commonly known in the modern day. It should also be noted that phoenix-hybrid dragons are also depicted in some cases, along with dragons whose tails end in heads, showing that variation did exist, with these depictions being most common during the early first millennium BCE. There is evidence to suggest that, before the introduction of Buddhism in the Han dynasty, these dragons were considered animals, which one ancient scholar claims were farmed for their livers (Chung, 1998:135), and throughout the Han dynasty this slowly changed once the *longwang*, reflexes of the *nagarajas*, were adopted as imperial symbols. Once the image of the East Asian dragon was settled on in the late 1<sup>st</sup> millennium BCE, all it had to do was spread beyond China's borders, with the spread of Buddhism advancing this via the *longwang*, spreading them to Korea and Japan, with these dragons also spreading into Vietnam either through Buddhism or through conquest. A reflex of the *tienlong* spread to the Amur River people in the form of the storm dragon *mudur*, who later was introduced to the Ainu people by the Nivkh, becoming the storm god Kanna Kamui.

Figure 28 shows a visual representation of how the dragon depictions mentioned within this work have changed over time in Asia, as well as how they have influenced each other. What this Figure ultimately shows is that the dragon depictions of Asia have formed a complex web of different traditions influencing each other and, while the Figure focuses primarily on the Indo-European, East Asian, and Naga traditions as well as examples from the Austronesian and hypothetical Mesopotamian traditions, the interrelatedness of the different traditions means that if any single tradition within Asia was not present, then the overall evolution of dragon depictions in the region of all the other traditions would not have occurred in such a way as they historically did up to the present day, potentially in vastly different ways. Whether or not such a relationship between traditions can be seen in other regions I cannot say, as such a thing is beyond the scope of this work, and would require a separate research project to be able to answer satisfactorily.

Key  
 — Strong Link  
 - - Hypothetical Link  
 1 - One of these is definitely the case

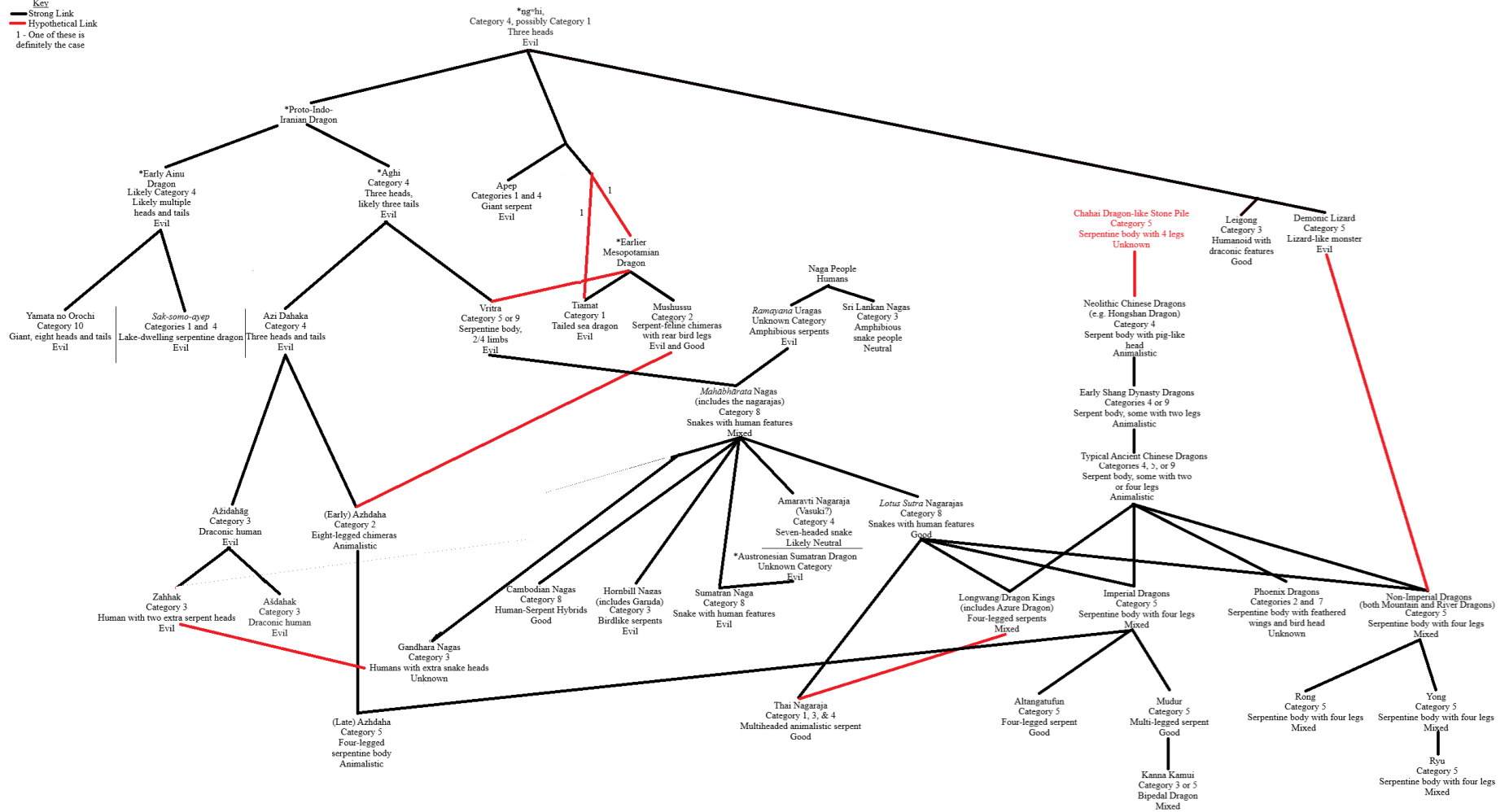


Figure 28 Diagram showing how different dragon traditions in Asia have influenced each other and evolved over time

What this should all show is that dragons in Asia have undergone vast changes since their initial inception, and hopefully this gives an idea at least of how these changes have been affected through the millennia. It is unfortunate that we cannot gain a more complete understanding of how Asian dragons have spread and evolved over time, and this is due to a lack of overall scholarship which, one can hope, will be rectified in the future, once circumstances permit it.

## EVALUATION

This work is as accurate as I am physically able to make it with the materials available to me. That is not to say that these materials are perfect, nor is it in my power to make this work perfect either.

In order to make my work as accurate as possible, I have tried relying on primary sources, or at the very least translations of them, instead of relying on secondary sources except where absolutely necessary. This does have an issue, though, as translations often fail to bring across the full meaning of the original texts and, unfortunately, I do not know any of the languages of the primary sources to any remote degree that would allow me to read them in the original languages, and as such it is possible that imperfect translations may have impacted the veracity of my work. Furthermore, translation issues may have also occurred in a number of the secondary sources I have used as well, further increasing their impact on the accuracy of my work.

While I have tried to present my conclusions and thought processes as clearly as possible in this work, it would be of no surprise to myself if there are instances where I have not conveyed my thought process in a suitably well-explained manner, and as such some of my conclusions may seem somewhat outlandish. In some instances this was done deliberately in order to avoid discussing topics that some would find sensitive, but in others it is quite likely that I simply failed to convey my thoughts adequately.

A number of the secondary sources used in this work have their own biases, and it is entirely possible that these biases have affected the veracity of my work. These biases are generally discussed in the Literature Review section of this work, and, while I have striven to identify and take these biases into account with my own work, it is almost an inevitability that their influence will still seep in.

In terms of the research methodology, the reason for this project being mostly qualitative instead of quantitative is because once it was decided that this project would focus on case studies instead of trying to cover absolutely everything and everywhen in Asia, it became much more of a case of studying individual representations, either in written sources, or as represented in artefacts, and such a method of examination I felt would be unsuitable for trying to gather quantitative data which could then be analysed. The only exception to this was the case study revolving around pre-Han Chinese dragons, which, owing to the numbers of the samples in the dataset, I felt could have a quantitative analysis performed instead of a solely qualitative one. Once the results were tabulated, though, and charts produced, I was unable to identify any statistical tests that would be suitable for the data, given its nature, and as such the analysis ended up being limited solely to how the graphs appeared based on the averaged numbers and proportions, instead of based on statistical analysis. In an ideal world, I would have had an improved understanding of statistical analysis and would have been able to get the data into a form that would allow for tests of significance, but alas I was unable to do so.

The key topic I would like to discuss in this evaluation is what my work here can lead to, based on unanswered questions it raises.

The most glaring questions are regarding those areas in Asia that this work was unable to cover, primarily Siberia and south-east Asia, but also central Asia and the Arabian peninsula. The easy solution would be to hope someone else covers the dragons of these areas in a satisfactory manner, but such a hope is, in all likelihood, asking too much. As such, one of the means of moving forward from this work would be to go to these places, learn about the depictions of dragons there, and then use the information gathered to improve on the conclusions of this work. In the current day and age, this will not be possible for some regions, such as Siberia, but such places may open up as an avenue for investigation in the future. For the Arabian peninsula at least, it seems that going there and learning would be the most effective method of learning about their dragon depictions, owing to the already discussed ambiguity involving a number of the historical sources from this region.

Another avenue that I feel would be worth investigating would be the influence of the Tocharian people on later Chinese culture. This question arises from the presence of Leigong as a seemingly Indo-European deity in the Chinese pantheon, with an associated dragon-slaying myth that, as far as I can tell, predates the introduction of Buddhism into the region and, as such, is indicative of earlier Indo-European influence on Chinese culture. The Tocharian people, as the most well-known group of Indo-Europeans in the region before the introduction of Buddhism, seem like the most logical place to start. Even if the Tocharian people are not responsible in any way for Leigong at least gaining the features of an Indo-European deity, a study into them could be used to learn more information about their culture in general and, ideally, turn up some more dragon depictions and legends. This research is also somewhat more practical to do since it may be possible to do it without needing to travel in person to the Tarim Basin, where the Tocharians lived, through the use of materials that have already been published, though going in person would always be a better way of getting information.

This work also suggested a few other avenues for investigation, one of which was to look into potential cases of diffusion between north-east Asian populations, such as the Ainu, and the Inuit peoples, owing to Inuit influence being seen in one of the Ainu *yukar* presented by Philippi. From there, it would be interesting to look into their dragons, as well as those of their neighbouring peoples in order to get a better picture of cultural diffusion between the northern reaches of Asia and North America and how the cultures of the peoples of those two continents may have influenced each other.

Yet another potential avenue for investigation in this work is to specifically look into the earliest dragons of Mesopotamia, owing a hypothesis of mine which has arisen both due to particular unusual aspects to their physical appearances, and due to the unusual similarities between Tiamat and Vritra. This hypothesis was initially created as a result of looking at the unusually wide variety of dragons depicted in the same region at the same time, and the unusual similarities between Tiamat and Vritra further this hypothesis. This project would likely be difficult owing to the

necessity of determining when Indo-European influence would be able to enter the region, and then finding suitable material culture, with writing being a secondary feature, owing to its invention in the region being of a similar time to when many of the Indo-European migrations were occurring, meaning that the impacts of their culture on Mesopotamia could potentially predate the creation of writing. As such, there might not be much suitable material culture available for me to use for such a project.

A final focused investigation would be one that focuses on identifying and tracing a potential African dragon tradition that impacted the development of dragons in Egypt. Such a potential tradition has been mentioned in this work in the context of Apep who, whilst an Indo-European dragon himself, is far from the only dragon in Egyptian mythology. Owing to the age of Ancient Egyptian culture, it would not be surprising if some of these dragons are determined to potentially result from a separate origin predating Indo-European influence in the region. Compared to Eurasian dragons, those of Africa seem poorly understood, and as such it would prove quite enlightening to do a study of them.

The reason I have been suggesting more focused projects than this current one is because, owing to the geographical scale of this project and the timeline I had to work to, I have not been able to go into anywhere near as much detail as I would have liked, and as such I am of the opinion that a more focused approach would be better for providing suitable depth to the results that could be gathered.

On the other hand, if the time restraints were relaxed or outright removed, it would be possible to scale up the project without having to sacrifice depth of information, with a potential maximum geographical scale of the entire world. Such a study, though, would likely require a lifetime of work to do to the standards with which I would want to approach such an undertaking, and thus I would be hesitant to approach this as the next project this current one leads to, unless it was to just be an overview or otherwise focused on specific case studies, much like this one is.

What this overall shows is that this project, despite its generally limited depth, has raised a good number of avenues for future investigations and has also been informative as to methodology for future research projects.

APPENDIX 1 - RAW DATA, CASE STUDY 3 DATASET, & CASE STUDY 3 AVERAGING DATA

ID	Name	Meaning	Group	Culture	Source	Date Start	Date End	Place	Perceptio	Eye Color	No. Head	No. Tail	No. Limb	Colour	Decoratio	Aura	Amphibio	Intelligen	Divine	Magical	Breath W	Shapesh	Death	Killed By	Wealth	Unique	
D01	Yamata	Eight-forl	G10	Japanese	Kojiki	673	712	Heijo-Ky	Negative	Red	8	8	4	Red	Moss anc	No	No	Yes	No	No	No	No	Got drunk	Susanoo	No	Yes	
D02	(O)Wata	Great ooi	G1	Japanese	Kojiki	673	712	Heijo-Ky	Positive	Unknown	1	1	4	Unknown	Unknown	No	Yes	Yes	Yes	Yes	No	No	No	N/A	Yes	Yes	
D03	Toyatam	Luxuriant	G1	Japanese	Kojiki	673	712	Heijo-Ky	Positive	Unknown	1	1	4	Unknown	Unknown	No	Yes	Yes	No	Yes	No	Yes	No	N/A	Yes	Yes	
D04	Wani	Crocodile	G1	Japanese	Kojiki	673	712	Heijo-Ky	Positive	Unknown	1	1	4	Unknown	Unknown	No	Yes	Yes	No	No	No	No	No	N/A	No	No	
D05	Nusakor	Goddess	G4	Ainu	Songs of	1915	1922	Chikabur	Positive	Unknown	1	1	0	Unknown	Unknown	No	No	Yes	Yes	Yes	No	No	No	N/A	Yes	Yes	
D06	Saksomc	That whic	G1	Ainu	Songs of	1932	1932	Hokkaidc	Negative	Unknown	1	1	2	Unknown	Unknown	Stench	Yes	Yes	Yes	No	No	No	Stung to	Shisoya	No	No	
D07	Takshak	Carpente	G4/G8	Hindu	Mahabha	-400	300	Hastinap	Negative	Unknown	1	1	0	Unknown	Unknown	No	No	Yes	No	Yes	No	No	No	N/A	Yes	Yes	
D08	Vasuki	He who c	G4/G8	Hindu	Mahabha	-400	300	Hastinap	Positive	Unknown	1	1	0	Unknown	Unknown	No	No	Yes	No	Yes	No	No	No	N/A	Yes	Yes	
D09	Sesha	The Rem	G4/G8	Hindu	Mahabha	-400	300	Hastinap	Positive	Unknown	Unknown	1	0	Unknown	Unknown	No	No	Yes	No	Yes	No	No	No	N/A	No	Yes	
D10	Guardiar	Unknown	G4/G8	Hindu	Mahabha	-400	300	Hastinap	Positive	Unknown	1	1	0	Unknown	Unknown	No	No	Yes	No	No	No	No	Yes	Garuda	No	No	
D11	Elapatra	Unknown	G8	Hindu	Mahabha	-400	300	Hastinap	Positive	Unknown	1	1	0	Unknown	Unknown	No	No	Yes	No	No	No	No	No	N/A	No	Yes	
D12	Mahodar	Generou	G8	Sri Lanka	Mahavan	-300	500	Anuradh.	Positive	Unknown	1	1	Unknown	Unknown	Unknown	No	Yes	Yes	No	No	No	No	No	N/A	Yes	Yes	
D13	Culodara	Unknown	G8	Sri Lanka	Mahavan	-300	500	Anuradh.	Positive	Unknown	1	1	Unknown	Unknown	Unknown	No	Unknown	Yes	No	No	No	No	No	N/A	Yes	Yes	
D14	Maniakl	Unknown	G8	Sri Lanka	Mahavan	-300	500	Anuradh.	Positive	Unknown	1	1	Unknown	Unknown	Unknown	No	Unknown	Yes	No	No	No	No	No	N/A	Yes	Yes	
D15	Mahakal	Beyond	G8	Sri Lanka	Mahavan	-300	500	Anuradh.	Positive	Unknown	1	1	Unknown	Unknown	Golden c	No	Unknown	Yes	No	No	No	No	No	N/A	Yes	Yes	
D16	Aravala	Unknown	G8	Sri Lanka	Mahavan	-300	500	Anuradh.	Negative	Unknown	1	1	Unknown	Unknown	Unknown	No	Yes	Yes	No	Yes	Fire	No	No	N/A	Yes	Yes	
D17	Apalala	Unknown	G8	Sri Lanka	Mahavan	-161	500	Anuradh.	Negative	Unknown	1	1	Unknown	Unknown	Unknown	No	Unknown	Yes	No	Unknown	No	No	Unknown	Unknown	Unknown	Yes	
D18	Kalanag	Unknown	G8	Sri Lanka	Mahavan	-161	500	Anuradh.	Negative	Unknown	1	1	Unknown	Unknown	Unknown	No	Unknown	Yes	No	No	No	No	No	N/A	Yes	Yes	
D19	Vitra	Envelope	G1	Hindu	Mahabha	-400	300	Hastinap	Negative	Unknown	Unknown	1	Unknown	Unknown	Unknown	Unknown	Unknown	Yes	Yes	Yes	Unknown	Unknown	Yes	Indra	Unknown	Yes	
D20	Pig Drag	Unknown	G5	Hongsha	figure 1 B	-4700	-2900	China	Positive	Jade	1	1	0	Jade	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D21	Fragmen	Unknown	G5	Hongsha	figure 1 B	-4000	-3000	Lioning F	Positive	Jade	1	1	0	Jade	Grooves	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D22	Box with	Unknown	G4	Mesopot.	box 1 Briti	-2600	-2400	Khafajeh	Unknown	Chlorite	1	1	0	Chlorite	Notable s	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	No
D23	Dragon F	Unknown	G5	Shang Cl	figure 1 B	-1500	-1050	China	Unknown	Jade	1	1	0	Jade	Cream in	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D24	Dragon F	Unknown	G5	Shang Cl	pendant	-1500	-900	China	Unknown	Jade	1	1	Unknown	Jade	Incisions	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D25	Dragon F	Unknown	G5	Shang Cl	pendant	-1500	-900	China	Unknown	Jade	1	1	2	Jade	Cinnabar	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D26	Dragon F	Unknown	G5	Shang Cl	ring 1 Briti	-1500	-900	China	Unknown	Jade	1	1	0	Jade	Intricate c	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D27	Dragon F	Unknown	G5	Shang Cl	pendant	-1500	-900	China	Unknown	Jade	1	1	0	Jade	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D28	Dragon F	Unknown	G5	Shang Cl	ring 1 Briti	-1500	-900	China	Unknown	Jade	1	1	2	Jade	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D29	Dragon F	Unknown	G5	Shang Cl	pendant	-1500	-900	China	Unknown	Jade	1	1	4	Jade	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D30	Dragon F	Unknown	G5	Shang Cl	pendant	-1400	-900	China	Unknown	Jade	1	1	4	Jade	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D31	Zun	Unknown	G5	Shang Cl	zun 1 Briti	-1300	-1100	China	Unknown	Bronze	1	Unknown	Unknown	Bronze	Many line	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D32	Dragon F	Unknown	G5	Shang Cl	pendant	-1200	-901	China	Unknown	Turquoise	1	1	4	Turquoise	Incisions	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D33	Dragon F	Unknown	G4/G6	Shang Cl	plaque 1 f	-1300	-1050	China	Unknown	Jade	1	1	2	Jade	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D34	Dragon A	Unknown	G5	Shang Cl	atefact 1	-1300	-1000	China	Unknown	Antler	1	Unknown	Unknown	Antler	Intricate c	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D35	Halberd	Unknown	G5	Shang Cl	halberd 1	-1300	-1000	China	Unknown	Bronze	1	1	4	Bronze	Feathers	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D36	Gong	Unknown	G5	Shang Cl	gong 1 Br	-1300	-1000	Anyang	Unknown	Bronze	1	Unknown	Unknown	Bronze	Intricate f	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D37	He	Unknown	G5	Shang Cl	he 1 Britis	-1300	-1000	Anyang	Unknown	Bronze	1	Unknown	Unknown	Bronze	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D38	Fang yi	Unknown	G5	Shang Cl	fang yi 1 E	-1300	-1000	Anyang	Unknown	Green	1	1	4	Green	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	No
D39	Gu	Unknown	G5/G9	Shang Cl	gu 1 Britis	-1200	-1050	Anyang	Unknown	Bronze	1	1	2	Bronze	Line on s	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D40	Fang yi	Unknown	G5	Shang Cl	fang yi 1 E	-1300	-1100	Anyang	Unknown	Bronze	1	1	0	Bronze	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	No
D41	Ding	Unknown	G5	Shang Cl	ding 1 Brit	-1200	-1000	Anyang	Unknown	Bronze	1	1	4	Bronze	Line on s	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D42	Dragon F	Unknown	G5	Shang Cl	pendant	-1200	-800	China	Unknown	White	1	1	4	White	Banding	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D43	Dragon F	Unknown	G5	Zhou or S	pendant	-1200	-800	China	Unknown	Jade	1	1	0	Jade	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D44	Gui	Unknown	G5	Western	gui 1 Britis	-1100	-1000	China	Unknown	Bronze	1	1	4	Bronze	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	No
D45	Pendant	Unknown	G5	Western	plaque 1 f	-1100	-700	China	Unknown	Jade	1	1	0	Jade	Patterns	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D46	Handle	Unknown	G5	Western	handle 1 f	-1100	-700	China	Unknown	Jade	1	Unknown	Unknown	Jade	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D47	Plaque	Unknown	G5	Western	plaque 1 f	-1100	-770	China	Unknown	Bronze	1	1	2	Bronze	Line on s	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	No
D48	Plaque	Unknown	G5	Western	plaque 1 f	-1100	-770	China	Unknown	Bronze	1	1	2	Bronze	Line on s	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	No
D49	Pendant	Unknown	G3/G5	Western	pendant	-1100	-770	China	Unknown	Jade	1	0	4	Jade	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D50	Ge	Unknown	G5	Western	ge 1 Britis	-1100	-770	China	Unknown	Bronze	1	1	4	Bronze	Banding	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D51	Ritual Pa	Unknown	G5	Western	pan 1 ritus	-1100	-770	China	Unknown	Bronze	1	1	4	Bronze	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	No
D52	Dina	Unknown	G5	Western	dina 1 Brit	-1100	-770	China	Unknown	Bronze	1	1	2	Bronze	Possible	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	No	

D53	Chariot F	Unknownr	G5	Western	<a href="#">chariot-fi</a>	-1100	-770	China	Unknownr	Bronze	1	1	4	Bronze	Line on s	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D54	Chariot F	Unknownr	G5	Western	<a href="#">chariot-fi</a>	-1100	-770	China	Unknownr	Bronze	1	Unknownr	Unknownr	Bronze	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D55	Chariot a	Unknownr	G5	Western	<a href="#">chariot-fi</a>	-1100	-770	China	Unknownr	Bronze	1	1	4	Bronze	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D56	Xing Hou	Unknownr	G2/G3/G	Western	<a href="#">guil Britis</a>	-1100	-770	China	Unknownr	Bronze	1	1	4	Bronze	Quills, sp	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D57	Sceptre l	Unknownr	G5	Western	<a href="#">sceptre-f</a>	-1050	-900	China	Unknownr	Jade	1	1	Unknownr	Jade	Banding	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr
D58	Pin	Unknownr	G2/G3	Early Per	<a href="#">pin-f Britis</a>	-1000	-500	Luristan,	Unknownr	Copper	1	Unknownr	2	Copper	Some soi	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr
D59	You	Unknownr	G5	Western	<a href="#">you-f Briti</a>	-1050	-850	China	Unknownr	Bronze	1	2	4	Bronze	Many line	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr
D60	Tiamat	Sea	G1	Neo-Ass	<a href="#">cylinder-s</a>	-900	-750	Iraq	Negative	Clay	1	1	0	Clay	None	Unknownr	Yes	Yes	Yes	Yes	Unknownr	Unknownr	Yes	Ninurta	Unknownr	Yes	
D61	Hu	Unknownr	G5	Western	<a href="#">hu-f Britis</a>	-950	-650	China	Unknownr	Bronze	1	1	4	Bronze	Markings	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D62	Bell	Unknownr	G5	Western	<a href="#">bell-f Briti</a>	-950	-450	China	Unknownr	Bronze	1	1	4	Bronze	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D63	Tablet	Unknownr	G2/G3	Middle B:	<a href="#">tablet-f Bi</a>	-875	-850	Iraq	Unknownr	Stone	1	Unknownr	Unknownr	Stone	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr
D64	Votive Pl.	Unknownr	G2	Neo-Ass	<a href="#">votive-pla</a>	-800	-700	Temple o	Positive	Copper	1	1	4	Copper	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D65	Hinge	Unknownr	G5	Eastern Z	<a href="#">hinge-f Bi</a>	-850	-550	China	Unknownr	Bronze	1	1	0	Bronze	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D66	Ding	Unknownr	G5	Eastern Z	<a href="#">ding-f Brit</a>	-850	-650	China	Unknownr	Bronze	1	1	0	Bronze	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D67	Plaque	Unknownr	G5	Western	<a href="#">plaque-f</a>	-850	-550	China	Unknownr	Bronze	1	1	4	Bronze	Lines on	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D68	Yi	Unknownr	G5	Eastern Z	<a href="#">yi-f British</a>	-850	-550	China	Unknownr	Bronze	1	1	0	Bronze	Patterns	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr
D69	You	Unknownr	G4	Eastern Z	<a href="#">you-f Briti</a>	-850	-650	China	Unknownr	Bronze	1	1	0	Bronze	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D70	Weapon	Unknownr	G5	Eastern Z	<a href="#">weapon-f</a>	-770	-221	China	Unknownr	Bronze	1	1	4	Bronze	Inscribed	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr
D71	Tablet	Unknownr	G2/G3	Babyloni	<a href="#">tablet-f Bi</a>	-750	-650	Borsippa	Unknownr	Stone	1	Unknownr	4	Stone	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D72	Tablet	Unknownr	G2/G3	Babyloni	<a href="#">tablet-f Bi</a>	-750	-650	Babylon,	Positive	Limestone	1	1	4	Limestone	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr
D73	Statuette	Unknownr	G2/G3	Late Bab	<a href="#">statuette</a>	-700	-550	Diyala, Ir	Unknownr	Bronze	1	1	4	Bronze	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D74	Yi Vessel	Unknownr	G4/G5	Eastern Z	<a href="#">vessel-yi</a>	-700	-500	China	Unknownr	Bronze	1	1	0	Bronze	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D75	Pendant	Unknownr	G5	Zhou Chi	<a href="#">figure-pe</a>	-750	-450	China	Unknownr	Jade	2	0	4	Jade	Banding	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr
D76	Mushhus Furious (i	G2	Late Bab	<a href="#">cylinder-s</a>	-700	-500	Iraq	Positive	Clay	1	1	4	Clay	Spade of	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr
D77	Mushhus Furious (i	G2	Neo-Ass	<a href="#">brick-f Bi</a>	-630	-627	Temple o	Positive	Clay	1	1	4	Clay	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr
D78	Pendant	Unknownr	G5	Eastern Z	<a href="#">pendant</a>	-650	-350	China	Unknownr	Jade	2	0	0	Jade	Spirals	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr
D79	Dagger-l	Unknownr	G5	Eastern Z	<a href="#">dagger-f</a>	-650	-350	China	Unknownr	Gold	1	2	8	Gold	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr
D80	Plaque	Unknownr	G4/G5	Eastern Z	<a href="#">plaque-f</a>	-650	-350	China	Unknownr	Jade	2	2	0	Jade	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D81	Figure Pe	Unknownr	G5	Zhou Chi	<a href="#">figure-pe</a>	-550	-250	China	Unknownr	Jade	1	1	2	Jade	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr
D82	Figure	Unknownr	G5	Warring S	<a href="#">figure-f Bi</a>	-500	-100	China	Unknownr	Jade	1	1	4	Jade	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr
D83	Bell	Unknownr	G5	Eastern Z	<a href="#">bell-f Briti</a>	-550	-250	China	Unknownr	Bronze	1	1	4	Bronze	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr
D84	Dui	Unknownr	G5	Eastern Z	<a href="#">dui-f Britis</a>	-550	-250	China	Unknownr	Bronze	1	1	4	Bronze	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr
D85	Vessel H.	Unknownr	G5/G7	Eastern Z	<a href="#">handle-v</a>	-500	-300	China	Unknownr	Bronze	1	1	6	Bronze	Markings	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D86	Buckle P	Unknownr	G5	Eastern Z	<a href="#">buckle-p</a>	-550	-250	Shaanzi	Negative	Jade	1	1	4	Jade	Lines on	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr
D87	Pendant	Unknownr	G5	Warring S	<a href="#">pendant</a>	-500	-100	China	Unknownr	Jade	1	1	2	Jade	Banding	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr
D88	Bell	Unknownr	G3	Eastern Z	<a href="#">bell-f Briti</a>	-550	-350	Henan P:	Unknownr	Bronze	3	2	Unknownr	Bronze	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr
D89	Hu	Unknownr	G5	Eastern Z	<a href="#">hu-f Britis</a>	-550	-250	China	Unknownr	Bronze	1	1	4	Bronze	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D90	He	Unknownr	G5	Eastern Z	<a href="#">he-f Britis</a>	-550	-250	China	Unknownr	Bronze	2	0	0	Bronze	Lines on	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D91	Hu	Unknownr	G5	Eastern Z	<a href="#">hu-f Britis</a>	-550	-250	China	Unknownr	Bronze	1	2	Unknownr	Bronze	Ridges o	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D92	Figure	Unknownr	G5	Warring S	<a href="#">figure-f Bi</a>	-500	-100	China	Unknownr	Jade	1	1	4	Jade	Tentacle	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D93	Artefact	Unknownr	G5	Warring S	<a href="#">artefact-f</a>	-500	-100	China	Unknownr	Gold	1	1	4	Gold	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D94	Plaque	Unknownr	G5	Eastern Z	<a href="#">plaque-f</a>	-550	-250	Shijiazhu	Unknownr	Bronze	1	1	4	Bronze	Lines on	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D95	Bell	Unknownr	G5	Eastern Z	<a href="#">bell-f Briti</a>	-550	-250	Changsh	Unknownr	Bronze	1	1	4	Bronze	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D96	Mirror	Unknownr	G4/G5	Eastern Z	<a href="#">mirror-f Bi</a>	-450	-100	China	Unknownr	Bronze	1	1	4	Bronze	Bird Hea	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D97	Hu	Unknownr	G5	Warring S	<a href="#">hu-f Britis</a>	-475	-221	China	Unknownr	Gold	1	1	4	Bronze	Golden o	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D98	Funerary	Unknownr	G5	Warring S	<a href="#">plaque-f</a>	-447	-221	Hebei Pr	Unknownr	White	1	1	4	White	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr
D99	Figure	Unknownr	G5	Eastern Z	<a href="#">figure-f Bi</a>	-450	-250	China	Unknownr	Jade	1	1	4	Jade	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr
D100	Figure	Unknownr	G5	Eastern Z	<a href="#">figure-f Bi</a>	-450	-150	China	Unknownr	Jade	1	1	4	Jade	Banding	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr
D101	Pendant	Unknownr	G4/G5	Eastern Z	<a href="#">figure-pe</a>	-450	-150	China	Unknownr	Jade	1	1	4	Jade	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr
D102	Plaque	Unknownr	G5	Eastern Z	<a href="#">plaque-f</a>	-450	-150	China	Unknownr	Jade	2	2	4	Jade	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No
D103	Garment	Unknownr	G5	Eastern Z	<a href="#">garment-</a>	-450	-50	Henan P:	Unknownr	Jade	1	Unknownr	Unknownr	Jade	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr

D104	Garment: Unknownr	G5	Eastern Z	<a href="#">garment-</a>	-450	-150	China	Unknownr	Bronze	1	1	4	Bronze	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr				
D105	Pendant	Unknownr	G4/G5	Eastern Z	<a href="#">pendant-</a>	-450	-150	China	Unknownr	Jade	1	1	0	Jade	Diagonal	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr			
D106	Garment: Unknownr	G5	Warring S	<a href="#">garment-</a>	-450	-50	China	Unknownr	Bronze	1	1	4	Bronze	Lines on	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr			
D107	Garment: Unknownr	G5	Eastern Z	<a href="#">garment-</a>	-450	-50	Yulin, Gu	Unknownr	Bronze	1	1	4	Bronze	Silver inl	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr			
D108	Pendant	Unknownr	G5	Eastern Z	<a href="#">pendant-</a>	-450	-150	China	Unknownr	Jade	2	0	0	Jade	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr			
D109	Mirror	Unknownr	G5	Eastern Z	<a href="#">mirror   Br</a>	-450	-150	Chuzhou	Unknownr	Bronze	1	1	4	Bronze	Banding	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No		
D110	Tube	Unknownr	G5	Eastern Z	<a href="#">tube   Brit</a>	-450	-250	Xinzheng	Unknownr	Jade	1	1	4	Jade	Line on s	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No		
D111	Belt Fittin	Unknownr	G5	Warring S	<a href="#">belt-fittin</a>	-400	-100	China	Unknownr	Jade	1	Unknownr	Unknownr	Jade	Intricate f	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr		
D112	Figure	Unknownr	G4/G5	Warring S	<a href="#">figure   Br</a>	-400	-1	China	Unknownr	Jade	1	1	0	Jade	Lines on	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr	
D113	Sword ar	Unknownr	G5	Eastern Z	<a href="#">sword: sv</a>	-300	-100	China	Unknownr	Wood	1	1	4	Wood	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No		
D114	Garment: Unknownr	G5	Zhou or H	<a href="#">garment-</a>	-350	-50	China	Unknownr	Gold	1	Unknownr	Unknownr	Gold	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr		
D115	Garment: Unknownr	G5	Zhou or H	<a href="#">garment-</a>	-350	-50	Jincun, H	Unknownr	Bronze	2	0	Unknownr	Bronze	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr		
D116	Garment: Unknownr	G5	Eastern Z	<a href="#">garment-</a>	-350	-150	China	Unknownr	Gold	1	1	4	Gold	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr		
D117	Belt-Fittin	Unknownr	G5	Western I	<a href="#">belt-fittin</a>	-350	-50	China	Unknownr	Turquoise	1	1	4	Gold	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No		
D118	Garment: Unknownr	G4/G5	Zhou or H	<a href="#">garment-</a>	-350	-150	China	Unknownr	Bronze	1	Unknownr	Unknownr	Bronze	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr		
D119	Mirror	Unknownr	G5	Eastern Z	<a href="#">mirror   Br</a>	-350	-50	China	Unknownr	Bronze	1	1	4	Bronze	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No		
D120	Mirror	Unknownr	G5	Qin Chin:	<a href="#">mirror   Br</a>	-230	-200	Chuzhou	Unknownr	Bronze	1	1	4	Bronze	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No		
D121	Mirror	Unknownr	G5	Qin or Ha	<a href="#">mirror   Br</a>	-230	-200	China	Unknownr	Bronze	1	1	2	Bronze	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No		
D122	Mirror	Unknownr	G5	Han Chin	<a href="#">mirror   Br</a>	-206	220	China	Unknownr	Bronze	1	1	4	Bronze	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr		
D123	Fitting	Unknownr	G5	Han Chin	<a href="#">fitting   Br</a>	-206	220	Xi'an, Sh	Unknownr	Bronze	1	1	4	Bronze	Banding	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr		
D124	Figure	Unknownr	G4/G5	Han Chin	<a href="#">figure   Br</a>	-210	250	China	Unknownr	Jade	1	1	0	Jade	Lines on	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr	
D125	Bi	Unknownr	G5	Han Chin	<a href="#">bi   British</a>	-206	220	China	Unknownr	Jade	1	1	4	Jade	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No	
D126	Seal Holc	Unknownr	G5	Han Chin	<a href="#">seal: holc</a>	-206	220	China	Unknownr	Gold	1	1	4	Gold	Line on s	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr	
D127	Plaque	Unknownr	G5	Han Chin	<a href="#">plaque   f</a>	-206	220	China	Unknownr	White	1	1	4	White	Banding	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr	
D128	Garment: Unknownr	G5	Han Chin	<a href="#">garment-</a>	-206	220	China	Unknownr	Bronze	1	1	2	Bronze	Lines on	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr		
D129	Garment: Unknownr	G5	Han Chin	<a href="#">garment-</a>	-206	220	Shijiazhu	Unknownr	Gold	1	1	4	Gold	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr		
D130	Sword Gc	Unknownr	G5	Han Chin	<a href="#">sword   Br</a>	-206	220	China	Unknownr	Glass	1	2	4	Glass	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr		
D130	Pendant	Unknownr	G5	Han Chin	<a href="#">pendant-</a>	-206	220	China	Unknownr	Jade	1	Unknownr	Unknownr	Jade	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	
D131	Mirror	Unknownr	G5	Han Chin	<a href="#">mirror   Br</a>	-206	220	China	Unknownr	Bronze	1	1	4	Bronze	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr	
D132	Bowl	Unknownr	G5	Han Chin	<a href="#">bowl   Brit</a>	-250	50	China	Unknownr	Gold	1	1	4	Gold	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr	
D133	Scabbar	Unknownr	G5	Han Chin	<a href="#">scabbar-</a>	-200	200	China	Unknownr	Jade	1	1	4	Jade	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No	
D134	Figure	Unknownr	G5	Western I	<a href="#">figure   Br</a>	-250	50	China	Unknownr	Jade	1	1	0	Jade	Lines on	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr	
D135	Plaque	Unknownr	G5	Western I	<a href="#">plaque   f</a>	-200	100	China	Unknownr	Jade	1	1	4	Jade	Banding	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No	
D136	Sheath	Unknownr	G5	Han Chin	<a href="#">sheath   f</a>	-200	200	China	Unknownr	Jade	1	1	4	Jade	Lines on	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr	
D137	Plaque	Unknownr	G5	Han Chin	<a href="#">plaque   f</a>	-200	200	China	Unknownr	Jade	1	1	4	Jade	Line on s	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr	
D138	Sword ch	Unknownr	G5	Han Chin	<a href="#">sword   Br</a>	-200	200	China	Unknownr	Jade	1	1	4	Jade	Line on s	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No	
D139	Sword Pc	Unknownr	G5	Han Chin	<a href="#">sword   Br</a>	-200	200	China	Unknownr	Jade	1	Unknownr	Unknownr	Jade	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr	
D140	Figure	Unknownr	G3/G5	Han Chin	<a href="#">figure   Br</a>	-200	200	China	Unknownr	Jade	1	3	4	Jade	Lines and	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr
D141	Rubbing	Unknownr	G5	Han Chin	<a href="#">rubbing  </a>	-100	-1	Maoling,	Unknownr	Unknownr	1	1	4	Unknownr	Spines	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr	
D142	Bi	Unknownr	G5	Eastern Z	<a href="#">bi   British</a>	-150	50	China	Unknownr	Jade	1	1	2	Unknownr	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No	
D143	Aylward S	Unknownr	G4	Qataban	<a href="#">stela   Br</a>	-150	150	Yemen	Unknownr	Calcite	2	0	0	Calcite	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr	
D144	Garment: Unknownr	G2/G3/G	Han Chin	<a href="#">garment-</a>	-50	250	China	Unknownr	Bronze	2	0	4	Bronze	Stripes	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr		
D145	Pendany	Unknownr	G5	Eastern H	<a href="#">pendant-</a>	-50	250	China	Unknownr	Jade	1	1	4	Jade	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No	
D146	Bezel	Unknownr	G2/G5	Aghanis	<a href="#">signet-rin</a>	1	300	Begram,	Unknownr	Copper A	1	1	4	Copper A	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr	
D147	Pilaster	Unknownr	G5	China	<a href="#">pilaster  </a>	-10	110	Zhengzh	Unknownr	Grey	1	1	4	Grey	Banding	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No	
D148	Stamp-S	Unknownr	G2	Parthian	<a href="#">stamp-ss</a>	45	55	North-Wc	Unknownr	Bronze	1	1	6	Bronze	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	
D149	Mirror	Unknownr	G5	Han Chin	<a href="#">https://w</a>	50	350	China	Unknownr	Bronze	1	1	4	Bronze	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No	
D150	Mirror	Unknownr	G5	Han Chin	<a href="#">mirror   Br</a>	50	350	China	Unknownr	Bronze	1	1	4	Bronze	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No	
D151	Seal	Unknownr	G2	China	<a href="#">seal   Brit</a>	50	350	Yotkan, E	Unknownr	Intaglio C	1	1	4	Intaglio C	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	Unknownr	
D152	Panel	Unknownr	G4/G5	Kushan (	<a href="#">panel   Br</a>	100	300	Gandhar	Unknownr	Schist	1	1	4	Schist	Spines	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No	
D153	Mirror	Unknownr	G5	China	<a href="#">mirror   Br</a>	200	300	Shaoting	Unknownr	Bronze	1	1	4	Bronze	None	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	Unknownr	N/A	Unknownr	No	

D154	Fitting	Unknown	G5	Six Dyna: <a href="#">fitting   Br</a>	265	583	China	Unknown	Gold	1	1	4	Gold	Spines	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D155	Seal	Unknown	G5	China <a href="#">seal   Brit</a>	300	400	Loulan, >	Unknown	Lignite	1	1	4	Lignite	Spines	Unknown	Unknown	Unknown	Unknown	Unknown	Clouds?	Unknown	Unknown	N/A	Unknown	Unknown	
D156	Ampulla	Unknown	G4	Byzantin <a href="#">ampulla  </a>	400	600	Halicarn	Unknown	Clay	1	1	0	Clay	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Yes	St. Georg	Unknown	Yes	
D157	Stamp-S	Unknown	G3	Sasanian <a href="#">stamp-se</a>	400	500	Asia	Unknown	Agate	6	1	2	Agate	Collar on	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D158	Chinese	Unknown	G5	Northern <a href="#">textile   fit</a>	400	600	Cave 17,	Unknown	Red-brow	1	1	6	Brown	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	No	
D159	Ketos	Sea Mon	G7	Byzantin <a href="#">dish   Brit</a>	550	600	Turkey	Unknown	Silver	1	1	4	Silver	Spots	Unknown	Yes	Unknown	Yes	Unknown	Unknown	Unknown	Unknown	Yes	Eros	Unknown	Yes
D160	Stamp	Unknown	G7	Byzantin <a href="#">stamp   B</a>	500	700	Temple o	Unknown	Clay	1	1	6	Clay	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Yes	St. Georg	Unknown	Yes	
D161	Figure	Unknown	G5	Tang or L <a href="#">figure   Br</a>	600	1200	China	Unknown	Jade	1	1	4	Jade	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D162	Amphora	Unknown	G5	Tang or E <a href="#">amphora</a>	600	700	North Chi	Unknown	Straw	1	Unknown	Unknown	Straw	Orbs on r	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	No	
D163	Roof Tile	Unknown	G5	Unified S <a href="#">roof-tile  </a>	600	800	Gyeongju	Unknown	Earthen	1	Unknown	Unknown	Earthen	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D164	Ewer	Unknown	G5	Tang Chi <a href="#">ewer   Bri</a>	618	906	China	Unknown	Porcelain	1	Unknown	Unknown	Porcelain	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D165	Mirror	Unknown	G5	Sui China <a href="#">mirror   Br</a>	601	604	China	Unknown	Silver	1	1	4	Silver	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D166	Ewer	Unknown	G5	Tang Chi <a href="#">ewer   Bri</a>	618	906	China	Unknown	Black	1	Unknown	Unknown	Black	Orbs on r	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D167	Bracelet/	Unknown	G5	Tang Chi <a href="#">bangle   b</a>	618	906	China	Unknown	Yellow-G	2	0	0	Yellow-G	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D168	Mirror	Unknown	G5	Tang Chi <a href="#">mirror   Br</a>	650	950	China	Unknown	Silver	1	1	4	Bronze	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D169	Mirror	Unknown	G5	Tang Chi <a href="#">mirror   Br</a>	700	800	China	Unknown	Bronze	1	1	4	Bronze	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D170	Bracket	Unknown	G5	China <a href="#">bracket  </a>	700	1000	Ming-oi,	Unknown	Wood	1	Unknown	Unknown	Wood	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D171	Arch	Unknown	G5	China <a href="#">arch   Brit</a>	700	1000	Ming-oi,	Unknown	Wood	1	Unknown	Unknown	blue	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	No	
D172	Mirror	Unknown	G5	Tang Chi <a href="#">mirror   Br</a>	800	900	China	Unknown	Bronze	1	1	4	Bronze	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D173	Ornament	Unknown	G3	Javanese <a href="#">ornamen</a>	800	1000	Java, Ind	Unknown	Bronze	1	5	4	Bronze	banding	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D174	Chinese	Unknown	G5	Tang Chi <a href="#">painting:</a>	800	900	Cave 17,	Unknown	Black	1	1	4	Red with	None	Unknown	Yes	yes	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D175	Spout	Unknown	G5	Tang Chi <a href="#">spout   Br</a>	900	1200	China	Unknown	jade	1	Unknown	Unknown	Jade	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D176	Head-dre	Unknown	G5	Song Chi <a href="#">head-dre</a>	900	1300	China	Unknown	Jade	1	1	4	Jade	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D177	Chinese	Unknown	G5	Late Tan <a href="#">painting:</a>	907	960	Cave 17,	Unknown	Black	1	1	4	white	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D178	Mirror	Unknown	G5	Goryeo K <a href="#">mirror   Br</a>	918	1332	Korea	Unknown	Bronze	1	1	4	Bronze	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D179	Mirror	Unknown	G1/G5	Goryeo K <a href="#">mirror   器</a>	918	1332	Korea	Negative	Bronze	1	1	4	Bronze	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D180	Plaque	Unknown	G5	Goryeo K <a href="#">plaque   器</a>	918	1332	Korea	Unknown	Bronze	1	1	4	Bronze	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D181	Plaque	Unknown	G5	Goryeo K <a href="#">plaque   器</a>	918	1332	Korea	Unknown	Bronze	1	1	4	Bronze	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D182	Plaque	Unknown	G5	Goryeo K <a href="#">plaque   器</a>	918	1332	Korea	Unknown	Bronze	1	1	4	Bronze	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D183	Mirror	Unknown	G5	Goryeo K <a href="#">mirror   器</a>	918	1332	Korea	Unknown	Bronze	1	1	4	Bronze	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	No	
D184	Mirror	Unknown	G5	Goryeo K <a href="#">mirror   器</a>	918	1332	Korea	Unknown	Bronze	1	1	4	Bronze	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	No	
D185	Blue Draç	Blue Draç	G5	Goryeo K <a href="#">mirror   器</a>	918	1332	Korea	Unknown	Bronze	1	1	4	Bronze	None	Unknown	Unknown	yes	Yes	yes	Unknown	Unknown	no	N/A	Unknown	Yes	
D186	Blue Draç	Blue Draç	G5	Goryeo K <a href="#">mirror   器</a>	918	1332	Korea	Unknown	Bronze	1	1	4	Bronze	Unknown	Unknown	Unknown	yes	Yes	yes	Unknown	Unknown	no	N/A	Unknown	Yes	
D187	Plaque	Unknown	G5	Eastern Z <a href="#">plaque   f</a>	960	1126	China	Unknown	Steatite	1	1	4	Steatite	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D188	Mirror	Unknown	G1/G5	Goryeo K <a href="#">mirror   器</a>	918	1332	Korea	Negative	Bronze	1	1	4	Bronze	None	Unknown	Yes	Unknown	Unknown	Unknown	Unknown	Unknown	Yes	Ci Fei	Unknown	Yes	
D189	Tea-Bow	Unknown	G5	Song Chi <a href="#">tea-bowl</a>	960	1368	China	Unknown	Green	1	1	4	Green	Red wisp	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D190	St. Georg	Unknown	G7	Seljuq En <a href="#">seal   inta</a>	1000	1200	Turkey	Negative	Red	1	1	3	Red	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Yes	St. Georg	Unknown	Yes	
D191	Dish	Unknown	G5	Jin or Nor <a href="#">dish   Brit</a>	1050	1234	Quyng (	Unknown	Grey	1	1	4	White	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D192	Bowl	Unknown	G5	Northern <a href="#">bowl   Brit</a>	1100	1200	Quyng (	Unknown	Unknown	1	1	4	White	Wisps	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D193	Funerary	Unknown	G5	Southern <a href="#">funerary</a>	1100	1300	Longqua	Unknown	White	1	1	4	Green	Sail-spin	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D194	Incense-	Unknown	G5	Southern <a href="#">incense-</a>	1100	1300	Longqua	Unknown	Unknown	1	Unknown	Unknown	Green	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	No	
D195	Mirror	Unknown	G5	Goryeo K <a href="#">mirror   器</a>	1100	1300	Korea	Unknown	Bronze	1	1	4	Bronze	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	No	
D196	Dish	Unknown	G5	Jin China <a href="#">dish   Brit</a>	1115	1234	Quyng (	Unknown	Porcelain	1	1	4	Porcelain	Sail-spin	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D197	Incense-	Unknown	G5	Southern <a href="#">incense-</a>	1127	1260	Longqua	Unknown	Green	1	Unknown	Unknown	Green	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	No	
D198	Ring	Unknown	G5	Yuan or P <a href="#">ring   Briti</a>	1150	1550	China	Unknown	Jade	1	1	4	Jade	Markings	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D199	Belt-Fittir	Unknown	G5	Yuan or P <a href="#">belt-fittin</a>	1150	1550	China	Unknown	Jade	1	1	4	Jade	Markings	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D200	Dish	Unknown	G5	Yuan or P <a href="#">dish   Brit</a>	1150	1450	Longqua	Unknown	Green	1	1	4	Green	Spines	Unknown	Unknown	Unknown	Unknown	Unknown	Clouds?	Unknown	Unknown	N/A	Unknown	Unknown	
D201	Plaque	Unknown	G5/G2	Yuan or P <a href="#">plaque: p</a>	1150	1550	China	Unknown	Jade	1	1	3	Jade	Banding	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D202	Dish	Unknown	G5	Yuan Chi <a href="#">dish   Brit</a>	1200	1300	Longqua	Unknown	Grey-Gre	1	1	4	Grey-Gre	Sail-spin	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D203	Plaque	Unknown	G5/G2	Jin or Yu: <a href="#">plaque   f</a>	1200	1400	China	Unknown	Jade	1	1	4	Jade	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown	
D204	Dish	Unknown	G5	Yuan Chi <a href="#">dish   Brit</a>	1200	1300	Longqua	Unknown	Grey-Gre	1	1	4	Grey-Gre	None	Unknown	Unknown	Unknown	Unknown	Unknown	Clouds?	Unknown	Unknown	N/A	Unknown	Unknown	

D204	Dish	Unknown	G5	Yuan Chi	<a href="#">dish I Brit</a>	1200	1300	Longqua	Unknown	Grey-Gre	1	1	4	Grey-Gre	None	Unknown	Unknown	Unknown	Unknown	Unknown	Clouds?	Unknown	Unknown	N/A	Unknown	Unknown
D205	Jar	Unknown	G5	China	<a href="#">jar I Britis</a>	1200	1500	Cizaoyac	Unknown	Yellow-C	1	1	4	Green	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D206	Ring	Unknown	G5	Yuan or f	<a href="#">ring I Briti</a>	1150	1550	China	Unknown	Jade	1	1	4	Jade	Feathers	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D207	Jawzahr	Lunar Ec	G7	Middle Isl	<a href="#">lidded bo</a>	1150	1250	Khurasar	Neutral	White	2	0	4	White	Markings	Unknown	Unknown	Unknown	No	Unknown	Unknown	Unknown	no	N/A	Unknown	Yes
D208	Water-dr	Unknown	G5	Yuan Chi	<a href="#">water-dr</a>	1260	1368	Jianxi prc	Unknown	White	1	1	4	White	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D209	Unknown	Unknown	G4	India	<a href="#">dome-sl</a>	100	200	Amarava	Positive	Limeston	5	Unknown	Unknown	Limeston	Head Orr	Unknown	Unknown	yes	No	Unknown	Unknown	Unknown	no	N/A	Yes	Unknown
D210	Wives of I	Unknown	G4	India	<a href="#">dome-sl</a>	100	200	Amarava	Positive	Limeston	1	Unknown	Unknown	Limeston	Head Orr	Unknown	Unknown	yes	No	Unknown	Unknown	Unknown	no	N/A	Yes	No
D211	Unknown	Unknown	G3/G4	Kushan	<a href="#">panell B</a>	100	300	Gandhar	Positive	Schist	7	Unknown	4	Schist	Head orn	Unknown	Unknown	yes	No	Unknown	Unknown	Unknown	no	N/A	Yes	No
D212	Unknown	Unknown	G4	Thailand	<a href="#">terminal</a>	1460	1490	Wat Phra	Unknown	Gold	1	1	0	Gold	Mane Orr	Unknown	Yes	Unknown	No	yes	Unknown	Unknown	no	N/A	Unknown	No
D213	Unknown	Unknown	G4	India	<a href="#">panell sc</a>	650	950	Amarava	Unknown	Limeston	7	1	0	Limeston	Head Orr	Unknown	Unknown	Unknown	No	Unknown	Unknown	Unknown	no	N/A	Unknown	Unknown
D214	Apsu	Deep Wa	G1/G3	Babyloni	Enuma EI	-1900	-600		Negative	Unknown	1	Unknown	4	Unknown	Unknown	Unknown	Yes	Yes	Yes	Presume	Unknown	No	Yes	Ea	Unknown	Yes
D215	Tiamat	Sea	G1	Babyloni	Enuma EI	-1900	-600		Negative	Blue	1	1	4	Unknown	Unknown	Fear	Yes	Yes	Yes	Yes	No	Yes	Marduk	Unknown	Yes	
D216	Bashmu	Venomou	G2	Babyloni	Enuma EI	-1900	-600		Negative	Unknown	Presume	1	4	Unknown	Unknown	Fear	Yes	Yes	Yes	No	"Deadly E	No	no	N/A	Unknown	No
D217	Ushumga	Great Dra	G2	Babyloni	Enuma EI	-1900	-600		Negative	Unknown	Presume	1	4	Unknown	Unknown	Fear	Yes	Unknown	Yes	No	"Deadly E	No	no	N/A	Unknown	No
D218	Mushmal	Exalted	G4	Babyloni	Enuma EI	-1900	-600		Negative	Unknown	7	1	0	Unknown	Unknown	Unknown	Yes	Yes	Unknown	No	Unknown	Unknown	no	N/A	Unknown	No
D219	Mushuss	Furious	G2	Babyloni	Enuma EI	-1900	-600		Negative	Unknown	1	1	4	Red	Unknown	Unknown	Yes	Unknown	Unknown	No	Unknown	No	no	N/A	Unknown	No
D220	Marduk	Calf of Ut	G3	Babyloni	Enuma EI	-1900	-600		Positively	Unknown	1	0	4	None	Unknown	Unknown	Yes	Yes	Yes	Yes	Fire	No	no	N/A	Yes	Yes
D221	Litan	Coled	G1	Ugaritic	Baal Cyc	-1400	-1350		Negative	Unknown	7	1	Unknown	Unknown	Unknown	None	Yes	Yes	Yes	Yes	No	No	Yes	Baal	Unknown	Yes
D222	Dragon fr	Unknown	G4	Medieval	Shahnan	977	1010		Negative	Red	1	1	0	Black	Unknown	None	Unknown	Yes	No	No	Fire	No	no	N/A	Unknown	Unknown
D223	Zahhak	Man-like	G3	Medieval	Shahnan	977	1010		Negative	Unknown	3	0	4	Black	Unknown	None	No	Yes	No	Yes	No	No	no	N/A	Yes	Yes
D224	Feraydur	Great So	G5	Medieval	Shahnan	977	1010		Negative	Unknown	1	1	4	Unknown	Unknown	None	Unknown	Yes	No	Yes	Fire	Yes	Yes	Natural C	Yes	Yes
D225	Dragon o	Unknown	G5	Medieval	Shahnan	977	1010		Negative	Red	1	1	4	Unknown	Unknown	None	Yes	Unknown	No	No	Fire and f	No	Yes	Sam	Unknown	Unknown
D226	Dragon fr	Unknown	G5	Medieval	Shahnan	977	1010		Negative	Unknown	1	1	4	Purple	Unknown	None	Unknown	Yes	No	No	Fire	No	Yes	Rostam	Unknown	Unknown
D227	Dragon fr	Unknown	G5	Medieval	Shahnan	977	1010		Negative	Unknown	1	1	4	Unknown	Unknown	None	Unknown	Unknown	No	No	Unknown	No	Yes	Gostasp	Unknown	Unknown
D228	Dragon fr	Unknown	G5	Medieval	Shahnan	977	1010		Negative	Red	1	1	4	Dark	Unknown	Poison	Unknown	No	No	No	Fire and f	No	Yes	Sekanda	Unknown	Unknown
D229	Dragon fr	Unknown	G1	Medieval	Shahnan	977	1010		Negative	Unknown	1	1	4	Unknown	Unknown	Poison	Yes	Unknown	No	No	No	No	Yes	Bahram C	Unknown	Unknown
D230	Rostam's	Unknown	G5	Medieval	Shahnan	977	1010		Positively	Unknown	1	1	4	Purple	Unknown	None	Unknown	Yes	No	No	Fire	No	Yes	Rostam	Unknown	Unknown
D231	Azi Daha	Man-like	G4	Avestan I	Kordeh A	-600	-400		Negative	Unknown	3	1	0	Unknown	Unknown	Unknown	Unknown	Yes	Yes	Yes	Unknown	Possessi	Yes	Thraetao	Yes	Yes
D232	Apophis	Apep Sn.	G4	Ancient E	Papyrus	-1275	-1250		Negative	Dark	1	1	0	Blue-whi	Unknown	Unknown	Yes	Yes	Yes	Presume	No	No	Yes	Re	Unknown	Yes
D233	Bronze D	Unknown	G2	Sassania	<a href="#">figure I B</a>	250	400		Unknown	Bronze	1	1	4	Bronze	None	Unknown	No	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D234	Dragon fr	Unknown	G2	Sassania	British Mu	250	350		Unknown	Light	1	1	4	Light	None	Unknown	No	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D235	Snake Dr	Furious	G2	Babyloni	<a href="https://wv">https://wv</a>	-605	-562		Positively	Golden	1	1	4	Golden	None	Unknown	Yes	Unknown	Unknown	No	Unknown	No	no	N/A	Unknown	No
D236	Ushum	Dragon	G2	Sumeriar	Ninurta's	-2144	-2120		Negative	Unknown	Presume	1	4	Unknown	None	Unknown	Yes	Yes	Unknown	No	Unknown	No	Yes	Ninurta	Unknown	No
D237	Mushsag	Seven-h	G4	Sumeriar	Ninurta's	-2144	-2120		Negative	Unknown	7	1	0	Unknown	None	Unknown	Yes	Yes	Unknown	No	Unknown	No	Yes	Ninurta	Unknown	No
D238	Ninurta	Lord of U	G3	Sumeriar	The Explk	-2144	-2120		Positively	Unknown	1	0	4	None	None	Thunder	Unknown	Yes	Yes	No	Poison?	No	no	N/A	Yes	Yes
D239	Ushum	Dragon	G2	Sumeriar	The Explk	-2144	-2120		Negative	Unknown	Presume	1	4	Unknown	None	Unknown	Yes	Yes	Unknown	No	Unknown	No	Yes	Ninurta	Unknown	No
D240	Mushsag	Seven-h	G4	Sumeriar	The Explk	-2144	-2120		Negative	Unknown	7	1	0	Unknown	None	Unknown	Yes	Yes	Unknown	No	Unknown	No	Yes	Ninurta	Unknown	No
D241	Asag	Chosen C	G4	Sumeriar	The Explk	-2144	-2120		Negative	Stony	1	1	0	Stony	None	Heat	No	Yes	Yes	No	Unknown	No	Yes	Ninurta	Yes	Yes
D242	Dragon C	Unknown	G6	Al-Jazira	<a href="#">Pair of Di</a>	1200	1250		Unknown	Copper	2	1	2	Copper	None	Unknown	Unknown	Unknown	No	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	No
D243	Dragon-t	Unknown	G5	Timurid	<a href="#">Pair of Di</a>	1400	1500		Unknown	Golden	1	Unknown	Unknown	Golden	None	Unknown	Unknown	Unknown	Yes	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D244	Dragon-t	Unknown	G5	Medieval	<a href="#">Cup with</a>	1450	1500		Unknown	Jade	1	Unknown	Unknown	Jade anc	Golden c	Unknown	Unknown	Unknown	No	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D245	Dragon fr	Unknown	G5	Ottoman	<a href="#">Study of</a>	1550	1620		Unknown	Yellow-b	1	1	4	White-ye	wisps of f	Unknown	Unknown	Unknown	No	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D246	Jade Dra	Unknown	G5	Timurid	<a href="#">Jade dra</a>	1420	1449		Positively	Jade	1	1	4	Jade	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D247	Dragon-t	Unknown	G4	Ottoman	<a href="#">Spouted</a>	1510	1510		Unknown	Black	1	1	0	Blue-whi	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D248	Dragon fr	Unknown	G5	Ottoman	<a href="#">Dragon ir</a>	1520	1550		Unknown	Golden	1	1	4	Grey, whi	wisps of f	Unknown	Unknown	Unknown	No	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D249	Dragon F	Furious	G2	Babyloni	<a href="#">Brick relie</a>	-600	-501		Positively	Black	1	1	4	White	None	Unknown	Yes	Unknown	Unknown	No	Unknown	No	no	N/A	Unknown	No
D250	Dragon F	Furious	G2	Babyloni	<a href="#">Terracott</a>	-800	-550		Positively	Brown	1	1	4	Brown	None	Unknown	Yes	Unknown	Unknown	Unknown	Unknown	No	no	N/A	Unknown	No
D251	Dragon ir	Unknown	G8	Ilkhanid	<a href="#">Silver Lot</a>	1275	1325		Unknown	Silver	1	1	4	Silver	None	Unknown	Unknown	Yes	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D252	Dragon o	Unknown	G2	Babyloni	<a href="#">Boundar</a>	-1125	-1104		Positively	White	1	Unknown	Unknown	White	Unknown	Unknown	Unknown	Unknown	Yes	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	No
D253	Dragon fr	Unknown	G5	Medieval	<a href="#">Bahram C</a>	1550	1570		Negative	Black	1	1	4	Black-gr	wisps of f	Unknown	Yes	Unknown	Unknown	Unknown	Unknown	Unknown	Yes	Bahram C	Unknown	Unknown
D254	St. Georg	Unknown	G7	Ottoman	<a href="#">Silver rev</a>	1800	1800		Negative	Silver	1	1	4	Silver	None	Unknown	Unknown	Unknown	No	Unknown	Unknown	Unknown	Yes	St. Georg	Unknown	Unknown
D255	St. Georg	Unknown	G7	Ottoman	<a href="#">St Georg</a>	1723	1723		Negative	Brown	1	1	4	Brown, lig	None	Unknown	Unknown	Unknown	No	Unknown	Unknown	Unknown	Yes	St. Georg	Unknown	Unknown

D256	Horned C	Unknown	G2	Kassite E	<a href="#">boundary</a>	-1171	-1159		Positively	Brown	1	1	4	Brown	None	Unknown	Unknown	Unknown	Yes	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	No
D257	Horned E	Unknown	G4	Kassite E	<a href="#">boundary</a>	-1171	-1159		Positively	Brown	1	1	0	Brown	Unknown	Unknown	Unknown	Unknown	Yes	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	No
D258	Winged C	Unknown	G2	Kassite E	<a href="#">boundary</a>	-1171	-1159		Positively	Brown	1	1	4	Brown	None	Unknown	Unknown	Unknown	Yes	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	No
D259	Winged C	Unknown	G2	Kassite E	<a href="#">boundary</a>	-1186	-1172		Positively	Grey	1	1	4	Grey	None	Unknown	Unknown	Unknown	Yes	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	No
D260	Serpent I	Unknown	G4	Babyloni	<a href="#">boundary</a>	-1068	-1047		Unknown	Unknown	Unknown	1	0	Unknown	None	Unknown	Unknown	Unknown	Yes	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D261	Stylised C	Unknown	G7	Safavid	<a href="#">bow I Brit</a>	1600	1700		Unknown	Blue	1	1	4	Blue	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	N/A	Unknown	Unknown
D262	St Georg	Unknown	G7	Ottoman	<a href="#">box I Brit</a>	1700	1800		Negative	Bronze	1	Unknown	Unknown	Bronze	Unknown	Unknown	Unknown	Unknown	No	Unknown	Unknown	Unknown	Yes	St. Georg	Unknown	Unknown
D263	Serpent I	Unknown	G4	Archaic I	<a href="#">box I rim I</a>	-2300	-2270		Unknown	Black	1	1	0	Black	None	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
D264	Serpents	Unknown	G4	Post-Ara	Tales of t	700	900		Positively	Flaming	1	1	0	Unknown	Unknown	Unknown	Yes	Yes	No	Unknown	Unknown	Unknown	no	N/A	Yes	No
D265	Yamlikha	Created I	G8	Post-Ara	Tales of t	700	900		Positively	Unknown	1	1	0	White	Unknown	Unknown	Unknown	Yes	No	Yes	Fire	Unknown	Yes	Yamlikha	Unknown	Yes
D266	Guard se	Unknown	G4	Post-Ara	Tales of t	700	900		Positively	Unknown	1	1	0	Unknown	Unknown	Unknown	Unknown	Yes	No	Unknown	Lightning	Unknown	no	N/A	Unknown	No
D267	Falaq	Daybreak	G4	Post-Ara	Tales of t	700	900		Negative	Unknown	1	1	0	Unknown	Unknown	Unknown	Unknown	Yes	No	Unknown	Unknown	Unknown	no	N/A	Unknown	Yes
D268	Enormou	Unknown	G4	Post-Ara	Tales of t	700	900		Negative	Unknown	1	1	0	Unknown	Unknown	Unknown	Unknown	Unknown	No	Unknown	Unknown	Unknown	no	N/A	Unknown	Yes
D269	Ammit	Devourer	G2	Ancient E	Papyrus	-1275	-1250		Negative	Brown	1	1	4	Green	Unknown	Unknown	Yes	Unknown	Yes	Yes	Unknown	Unknown	no	N/A	Unknown	Yes
D270	Wadjet	Green Or	G4	Ancient E	Papyrus	-1275	-1250		Positively	Black	1	1	0	Green ar	Unknown	Unknown	Unknown	Yes	Yes	Yes	Fire	Unknown	no	N/A	Unknown	Yes
D271	Ani	Unknown	G3	Ancient E	Papyrus	-1275	-1250		Positively	Black	1	1	2	White	Unknown	Unknown	Unknown	Yes	Unknown	Yes	Unknown	Yes	no	N/A	Yes	Yes

Table 3 Table of raw data collected for this project.

Dragon #	Date	Source	Page	Plate (op)	Material	Textual M	No. Head	No. Tails	No. Limb	Horns	Wings	Hair	Type
1	Shang	Collectic	48		Jade		1	1	2	Yes	No	No	G3
2	Shang	Collectic	49		Jade		1	1	0	Yes	No	No	G4
3	Shang	Collectic	50		Jade		1	1	2	Yes	No	No	G3
4	Shang	Collectic	51		Jade		1	1	0	Yes	No	No	G4
5	Shang	Collectic	21	63	Jade		1	1	2	Yes	No	No	G3
6	Shang	Collectic	92		Bronze		1	1	0	Yes	No	No	G4
7	Shang	Collectic	76	100	Jade		1	1	0	Yes	No	No	G4
8	Shang	Collectic	77	101	Jade		1	1	0	Yes	No	No	G4
9	Shang	Collectic	77	102	Jade	Snakelike	1	1	0	Yes	No	No	G4
10	Shang	Collectic	78	103	Jade		1	1	0	Yes	No	No	G4
11	Late Sha	Collectic	104		Jade		1	1	4	Yes	No	No	G5
12	Late Sha	Collectic	120		Jade		1	1	0	Yes	No	No	G4
13	Late Sha	Collectic	126		Jade	Ornamen	1	1	2	Yes	No	No	G3
14	Late Sha	Collectic	130		Jade		1	1	4	Yes	No	No	G5
15	Late Sha	Collectic	141	194	Jade		1	1	0	Yes	No	No	G4
16	Eastern 2	Collectic	146		Jade		1	1	0	Yes	No	No	G4
17	Early We	Collectic	148	205	Jade		1	1	0	Yes	No	No	G4
18	Western	Collectic	158		Jade	Combina	1	1	0	Yes	No	No	G4
19	Western	Collectic	162		Jade	Combina	1	1	4	Yes	No	No	G5
20	Early We	Collectic	170	237	Jade		1	1	0	Yes	No	No	G4
21	Western	Collectic	171		Jade		1	1	4	Yes	No	No	G5
22	Western	Collectic	172		Jade		1	1	0	Yes	No	No	G4
23	Western	Collectic	173	240	Jade		1	1	0	Yes	No	No	G4
24	Western	Collectic	173	241	Jade		1	1	4	Yes	No	No	G5
25	Middle \	Collectic	174		Jade	Combina	1	1	0	Yes	No	No	G4
26	Middle \	Collectic	176	244	Jade		1	1	2	Yes	No	No	G3
27	Western	Collectic	200		Jade	Just a dr	1	1	0	No	No	Yes	G4
28	Western	Collectic	209	291	Jade		1	1	0	Yes	No	No	G4
29	Western	Collectic	209	292	Jade		1	1	2	Yes	No	No	G3
30	Western	Collectic	211	294	Jade	Just a dr	1	1	0	Yes	No	No	G4
31	Western	Collectic	211	295	Jade	Just a dr	1	1	4	Yes	No	No	G5
32	Neolithic	Collectic	26		Jade	Hongsha	1	1	0	No	No	Yes	G4
33	Early Spi	Collectic	7	11	Jade	Two-hea	2	0	4	Yes	No	No	G5
34	Early Spi	Collectic	7	12	Jade	Young	1	1	0	Yes	No	No	G4
35	Early We	Collectic	156	169	Bronze	Snakelike	1	1	0	Yes	No	No	G4
36	Early We	Collectic	159		Bronze	Lid	1	1	2	Yes	No	No	G3
37	Late Spri	Collectic	22		Jade		1	1	4	Yes	No	No	G5
38	Late Spri	Collectic	23	37	Jade		1	1	4	Yes	No	No	G5
39	Late Spri	Collectic	23	38	Jade		1	1	4	Yes	Yes	No	G7
40	Late Spri	Collectic	24	39	Jade	Dragon-l	1	1	4	Yes	Yes	No	G2/G5
41	Late Spri	Collectic	24	40	Jade		1	1	4	Yes	No	No	G5
42	Late Spri	Collectic	28	44	Jade	Dragon-	1	1	0	Yes	No	No	G4
43	Late Spri	Collectic	74		Jade		1	2	4	Yes	No	No	G5
44	Late Spri	Collectic	77	122	Jade		1	1	4	Yes	Yes	No	G7
45	Late Spri	Collectic	79	126	Jade		2	0	0	Yes	No	No	G4
46	Late Spri	Collectic	79	127	Jade		2	0	0	Yes	No	No	G4
47	Spring si	Collectic	84		Jade		1	1	0	Yes	No	No	G4
48	Early Wa	Collectic	85		Jade		1	1	4	Yes	No	No	G3
49	Early Wa	Collectic	87		Jade	Inner and	1	2	8	Yes	No	No	G5
50	Early Wa	Collectic	88	140	Jade	Outer rin	1	2	8	Yes	No	No	G5
51	Early Wa	Collectic	89	142	Jade		1	1	8	Yes	No	No	G5
52	Early Wa	Collectic	89	143	Jade		1	1	4	Yes	No	No	G5
53	Early Wa	Collectic	91		Jade		1	1	4	Yes	Yes	No	G7
54	Early Wa	Collectic	93		Jade		1	1	2	Yes	No	No	G3
55	Early Wa	Collectic	98	153	Jade		1	1	2	Yes	No	No	G3
56	Early Wa	Collectic	98	154	Jade		1	1	4	Yes	No	No	G5
57	Early Wa	Collectic	101	158	Jade		1	1	4	Yes	No	No	G5
58	Early Wa	Collectic	105	164	Jade		1	1	0	Yes	No	No	G4
59	Early Wa	Collectic	108		Jade		1	1	4	Yes	Yes	No	G7
60	Early Wa	Collectic	110		Jade		1	1	4	Yes	Yes	No	G7
61	Early Wa	Collectic	111		Jade	Carving	1	1	4	Yes	No	No	G5
62	Early Wa	Collectic	112		Jade		1	1	4	Yes	No	No	G5
63	Early Wa	Collectic	113		Jade		1	1	0	Yes	No	No	G4
64	Early Wa	Collectic	114		Jade	Dragon c	1	1	4	Yes	No	No	G5
65	Early Wa	Collectic	118		Jade		1	1	5	Yes	No	No	G5
66	Early Wa	Collectic	122		Jade		1	1	4	Yes	No	No	G5
67	Early Wa	Collectic	126	193	Jade	Snakelike	1	1	4	Yes	No	No	G5

67	Early Wa	Collectic	126	193	Jade	Snakelike	1	1	4	Yes	No	No	G5
68	Middle \	Collectic	128	196	Jade		2	0	0	Yes	No	No	G4
69	Middle \	Collectic	128	197	Jade		2	0	0	Yes	No	No	G4
70	Middle \	Collectic	129	198	Jade		1	1	2	Yes	No	No	G9
71	Middle \	Collectic	135		Jade		1	1	4	Yes	No	No	G5
72	Middle \	Collectic	136	209	Jade		1	1	4	Yes	No	No	G5
73	Middle \	Collectic	139		Jade	3 dragon	1	1	4	Yes	Yes	No	G7
74	Middle \	Collectic	140	215	Jade		1	2	4	Yes	Yes	No	G7
75	Middle \	Collectic	141	216	Jade		1	1	4	Yes	Yes	No	G7
76	Middle \	Collectic	141	217	Jade		1	1	4	Yes	No	No	G5
77	Middle \	Collectic	143		Jade	2 dragon	1	1	4	Yes	No	No	G2/G5
78	Middle \	Collectic	144		Jade		1	1	4	Yes	No	No	G5
79	Middle \	Collectic	145	222	Jade		1	1	4	Yes	No	No	G5
80	Middle \	Collectic	145	223	Jade		1	1	4	Yes	No	No	G5
81	Middle \	Collectic	146	225	Jade	Snake wi	1	1	4	Yes	No	No	G5
82	Late War	Collectic	149	230	Jade		1	1	4	Yes	No	No	G5
83	Late War	Collectic	150		Jade		1	2	4	Yes	No	No	G5
84	Middle \	Collectic	153	237	Jade	Snakelike	1	1	0	Yes	No	No	G4
85	Middle \	Collectic	153	238	Jade		2	0	0	Yes	No	No	G4
86	Middle \	Collectic	154	239	Jade		1	1	4	No	No	No	G5
87	Middle \	Collectic	154	240	Jade		1	1	0	Yes	No	No	G4
88	Middle \	Collectic	156	243	Jade		2	0	0	Yes	No	No	G4
89	Late War	Collectic	157	244	Jade		1	1	4	Yes	No	No	G5
90	Middle \	Collectic	160		Jade		2	0	4	Yes	No	No	G5
91	Middle \	Collectic	161		Jade		1	1	4	Yes	No	No	G5
92	Middle \	Collectic	162		Jade		1	1	4	Yes	No	No	G5
93	Late War	Collectic	165	259	Jade	2 dragon	1	1	4	Yes	No	No	G5
94	Late War	Collectic	166		Jade	2 dragon	1	1	4	Yes	No	No	G5
95	Late War	Collectic	168	263	Jade		2	0	0	Yes	No	No	G4
96	Late War	Collectic	169	264	Jade		2	0	0	Yes	No	No	G4
97	Late War	Collectic	169	265	Jade		1	2	4	Yes	No	No	G5
98	Late War	Collectic	170	266	Jade		1	1	4	Yes	No	No	G5
99	Late War	Collectic	170	267	Jade	incomple	0	1	4	No	No	No	G5
100	Late War	Collectic	171	269	Jade	Dragon-l	0	1	2	No	No	No	G5
101	Late War	Collectic	173	272	Jade	Snakelike	2	0	0	Yes	No	No	G4
102	Late War	Collectic	173	273	Jade	Snakelike	2	0	0	Yes	No	No	G4
103	Late War	Collectic	174	274	Jade		1	1	4	Yes	No	No	G5
104	Late War	Collectic	174	275	Jade		1	1	4	Yes	No	No	G5
105	Late War	Collectic	174	276	Jade		1	1	4	Yes	No	No	G5
106	Late War	Collectic	175	277	Jade		1	1	4	Yes	No	No	G5
107	Late War	Collectic	175	278	Jade		1	1	4	Yes	No	Yes	G5
108	Late War	Collectic	175	279	Jade		1	1	2	Yes	No	No	G9
109	Late War	Collectic	178		Jade		1	1	4	Yes	No	No	G5
110	Late War	Collectic	181		Jade	Phoenix :	1	1	4	Yes	No	Yes	G5
111	Late War	Collectic	182		Jade		2	0	4	Yes	No	No	G5
112	Late War	Collectic	183		Jade		1	1	4	Yes	No	No	G5
113	Late War	Collectic	185	291	Jade		2	0	0	Yes	No	No	G4
114	Late War	Collectic	185	292	Jade		2	0	0	Yes	No	No	G4
115	Late War	Collectic	186		Jade		1	1	4	Yes	No	No	G5
116	Late War	Collectic	187		Jade	Phoenix :	1	1	4	Yes	No	No	G5
117	Warring	Collectic	189		Jade	Main mo	1	1	0	Yes	No	No	G4
118	Warring	Collectic	191	300	Jade		1	1	4	Yes	No	No	G5
119	Late War	Collectic	192		Jade		1	1	4	Yes	No	No	G5
120	Late War	Collectic	193		Jade		1	1	4	Yes	No	No	G5
121	Warring	Collectic	196		Jade		1	1	4	Yes	No	No	G5
122	Warring	Collectic	197		Jade		2	0	4	Yes	No	No	G5
123	Early Spi	Collectic	2		Bronze	Tiger as	1	1	4	No	No	No	G5
124	Middle §	Collectic	9		Bronze		1	1	2	Yes	No	No	G9
125	Middle §	Collectic	12		Bronze	Snakelike	1	1	4	Yes	No	No	G5
126	Middle §	Collectic	13		Bronze	Dense se	0	1	0	No	No	No	G4
127	Middle §	Collectic	14		Bronze	Dense se	0	1	0	No	No	No	G4
128	Middle §	Collectic	16	19	Bronze		1	1	2	Yes	No	No	G9
129	Middle §	Collectic	16	20	Bronze		1	1	0	Yes	No	No	G4
130	Middle §	Collectic	18		Bronze		1	1	0	Yes	No	No	G4
131	Middle §	Collectic	19		Bronze		1	1	4	Yes	No	No	G5
132	Middle §	Collectic	20		Bronze		1	1	0	No	No	No	G4
133	Late Spri	Collectic	23		Bronze		1	1	4	Yes	No	No	G5

134	Late Spri	Collectic	25	Bronze		1	1	4	Yes	No	No	G5
135	Late Spri	Collectic	26	Bronze	Derpy dr	1	1	4	No	No	Yes	G5
136	Late Spri	Collectic	27	Bronze	Snakelike	2	0	0	No	No	No	G4
137	Late Spri	Collectic	28	Bronze		1	1	0	No	No	No	G5
138	Late Spri	Collectic	30	Bronze		1	1	2	Yes	No	No	G9
139	Late Spri	Collectic	32	Bronze	Band of	0	1	0	No	No	No	G4
140	Late Spri	Collectic	35	43	Bronze	Dense se	0	1	0	No	No	G4
141	Late Spri	Collectic	37	Bronze	Dense se	0	1	0	No	No	No	G4
142	Late Spri	Collectic	40	Bronze		0	1	0	No	No	No	G4
143	Early W/a	Collectic	46	Bronze	Band of	0	1	0	No	No	No	G4
144	Early W/a	Collectic	48	Bronze	Band of	0	1	0	No	No	No	G4
145	Early W/a	Collectic	55	Bronze	Dense se	0	1	0	No	No	No	G4
146	Early W/a	Collectic	56	Bronze		1	1	0	Yes	No	No	G4
147	Early W/a	Collectic	57	Bronze		1	1	4	Yes	No	No	G5
148	Early W/a	Collectic	61	Bronze		1	1	4	Yes	No	No	G5
149	Early W/a	Collectic	62	Bronze		1	1	4	Yes	No	No	G5
150	Early W/a	Collectic	63	Bronze		1	1	4	Yes	No	No	G5
151	Early W/a	Collectic	64	Bronze		1	1	4	No	No	No	G5
152	Early W/a	Collectic	69	Bronze		0	1	0	No	No	No	G4
153	Early W/a	Collectic	70	Bronze		1	1	4	Yes	No	No	G5
154	Early W/a	Collectic	71	Bronze	Draconic	0	1	0	No	No	No	G4
155	Early W/a	Collectic	73	Bronze		1	1	4	Yes	No	No	G5
156	Early W/a	Collectic	76	Bronze	Dense se	0	1	0	No	No	No	G4
157	Early W/a	Collectic	79	Bronze	Dragon-	1	1	0	Yes	No	No	G4
158	Early W/a	Collectic	80	Bronze		1	1	4	Yes	No	No	G5
159	Middle c	Collectic	84	Bronze		1	1	4	Yes	No	Yes	G5
160	Middle c	Collectic	85	Bronze		1	1	4	Yes	No	No	G5
161	Middle c	Collectic	97	Bronze		1	1	4	Yes	No	No	G5
162	Middle c	Collectic	98	Bronze		1	1	4	No	No	No	G5
163	Middle c	Collectic	110	Bronze	Dense se	0	1	0	No	No	No	G4
164	Middle c	Collectic	112	Bronze	Dense se	0	1	0	No	No	No	G4
165	Middle c	Collectic	113	Bronze		1	1	4	Yes	No	No	G5
166	Middle c	Collectic	118	Bronze	Two on l	1	1	4	Yes	No	No	G5
167	Middle c	Collectic	128	Bronze	Bands of	0	1	0	No	No	No	G4
168	Middle c	Collectic	131	Bronze	symbolic	0	1	0	No	No	No	G4
169	Middle c	Collectic	140	Bronze	Stylised	1	1	4	Yes	No	No	G5
170	Middle c	Collectic	149	Bronze		1	1	4	No	Yes	Yes	G7
171	Late Sha	Collectic	28	Bronze	Tiger and	1	1	0	Yes	No	No	G4
172	Late Sha	Collectic	52	78	Jade	1	1	2	Yes	No	No	G9
173	Late Sha	Collectic	53	79	Jade	1	1	0	Yes	No	No	G4
174	Late Wes	Collectic	92	122	Bronze	1	1	0	Yes	No	Yes	G4
175	Late Wes	Collectic	92	123	Bronze	1	1	0	Yes	No	Yes	G4
176	Late Wes	Collectic	94	Bronze		1	2	0	Yes	No	No	G4
177	Warring	Collectic	100	Jade		1	1	4	Yes	No	No	G5
178	Qin	Collectic	35	Clay brick		1	1	4	Yes	No	Yes	G5
179	Qin	Collectic	35	clay brick		1	1	4	Yes	No	Yes	G5
180	Qin	Collectic	35	clay brick		1	1	4	Yes	No	Yes	G5
181	Warring	The Histo	31	Painting	zhonggu	1	1	4	Yes	No	No	G5

Table 4 Table of raw data for the case study 3 sample dataset

Dragon 1 Date	Early	Late	-1600	-1550	-1500	-1450	-1400	-1350	-1300	-1250	-1200	-1150	-1100	-1050	-1000	-950	-900	-850	-800	-750	-700	-650	-600	-550	-500	-450	-400	-350	-300	-250
1 Shang	-1600	-1046	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903																
2 Shang	-1600	-1046	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903																
3 Shang	-1600	-1046	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903																
4 Shang	-1600	-1046	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903																
5 Shang	-1600	-1046	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903																
6 Shang	-1600	-1046	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903																
7 Shang	-1600	-1046	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903																
8 Shang	-1600	-1046	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903																
9 Shang	-1600	-1046	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903																
10 Shang	-1600	-1046	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903	0.0903																
11 Late Shang	-1233	-1046								0.1765	0.2674	0.2674	0.2674	0.0214																
12 Late Shang	-1233	-1046								0.1765	0.2674	0.2674	0.2674	0.0214																
13 Late Shang	-1233	-1046								0.1765	0.2674	0.2674	0.2674	0.0214																
14 Late Shang	-1233	-1046								0.1765	0.2674	0.2674	0.2674	0.0214																
15 Late Shang	-1233	-1046								0.1765	0.2674	0.2674	0.2674	0.0214																
16 Eastern Zhou	-770	-256																	0.0389	0.0973	0.0973	0.0973	0.0973	0.0973	0.0973	0.0973	0.0973	0.0973	0.0856	
17 Early Western Zhou	-1046	-954										0.5	0.5																	
18 Western Zhou	-1046	-771										0.1673	0.1818	0.1818	0.1818	0.1818	0.1818	0.1055												
19 Western Zhou	-1046	-771										0.1673	0.1818	0.1818	0.1818	0.1818	0.1818	0.1055												
20 Early Western Zhou	-1046	-954										0.5	0.5																	
21 Western Zhou	-1046	-771										0.1673	0.1818	0.1818	0.1818	0.1818	0.1818	0.1055												
22 Western Zhou	-1046	-771										0.1673	0.1818	0.1818	0.1818	0.1818	0.1818	0.1055												
23 Western Zhou	-1046	-771										0.1673	0.1818	0.1818	0.1818	0.1818	0.1818	0.1055												
24 Western Zhou	-1046	-771										0.1673	0.1818	0.1818	0.1818	0.1818	0.1818	0.1055												
25 Middle Western Zhou	-954	-862										0.0435	0.5435	0.413																
26 Middle Western Zhou	-954	-862										0.0435	0.5435	0.413																
27 Western Zhou	-1046	-771										0.1673	0.1818	0.1818	0.1818	0.1818	0.1818	0.1055												
28 Western Zhou	-1046	-771										0.1673	0.1818	0.1818	0.1818	0.1818	0.1818	0.1055												
29 Western Zhou	-1046	-771										0.1673	0.1818	0.1818	0.1818	0.1818	0.1818	0.1055												
30 Western Zhou	-1046	-771										0.1673	0.1818	0.1818	0.1818	0.1818	0.1818	0.1055												
31 Western Zhou	-1046	-771										0.1673	0.1818	0.1818	0.1818	0.1818	0.1818	0.1055												
32 Neolithic	-6000	-1600	Look at this dragon separately																											
33 Early Spring and Autumn Per	-770	-674																	0.2083	0.5208	0.2708									
34 Early Spring and Autumn Per	-770	-674																	0.2083	0.5208	0.2708									
35 Early Western Zhou	-1046	-954										0.5	0.5																	
36 Early Western Zhou	-1046	-954										0.5	0.5																	
37 Late Spring and Autumn	-577	-481																					0.2813	0.5208	0.1979					
38 Late Spring and Autumn	-577	-481																					0.2813	0.5208	0.1979					
39 Late Spring and Autumn	-577	-481																					0.2813	0.5208	0.1979					
40 Late Spring and Autumn	-577	-481																					0.2813	0.5208	0.1979					
41 Late Spring and Autumn	-577	-481																					0.2813	0.5208	0.1979					
42 Late Spring and Autumn	-577	-481																					0.2813	0.5208	0.1979					
43 Late Spring and Autumn	-577	-481																					0.2813	0.5208	0.1979					
44 Late Spring and Autumn	-577	-481																					0.2813	0.5208	0.1979					
45 Late Spring and Autumn	-577	-481																					0.2813	0.5208	0.1979					
46 Late Spring and Autumn	-577	-481																					0.2813	0.5208	0.1979					
47 Spring and Autumn	-770	-481																	0.0692	0.173	0.173	0.173	0.173	0.173	0.0657					
48 Early Warring States	-475	-390																						0.2941	0.5882	0.1176				
49 Early Warring States	-475	-390																						0.2941	0.5882	0.1176				
50 Early Warring States	-475	-390																						0.2941	0.5882	0.1176				
51 Early Warring States	-475	-390																						0.2941	0.5882	0.1176				
52 Early Warring States	-475	-390																						0.2941	0.5882	0.1176				
53 Early Warring States	-475	-390																						0.2941	0.5882	0.1176				
54 Early Warring States	-475	-390																						0.2941	0.5882	0.1176				
55 Early Warring States	-475	-390																						0.2941	0.5882	0.1176				
56 Early Warring States	-475	-390																						0.2941	0.5882	0.1176				
57 Early Warring States	-475	-390																						0.2941	0.5882	0.1176				
58 Early Warring States	-475	-390																						0.2941	0.5882	0.1176				
59 Early Warring States	-475	-390																						0.2941	0.5882	0.1176				
60 Early Warring States	-475	-390																						0.2941	0.5882	0.1176				
61 Early Warring States	-475	-390																						0.2941	0.5882	0.1176				
62 Early Warring States	-475	-390																						0.2941	0.5882	0.1176				
63 Early Warring States	-475	-390																						0.2941	0.5882	0.1176				
64 Early Warring States	-475	-390																						0.2941	0.5882	0.1176				
65 Early Warring States	-475	-390																						0.2941	0.5882	0.1176				
66 Early Warring States	-475	-390																						0.2941	0.5882	0.1176				
67 Early Warring States	-475	-390																						0.2941	0.5882	0.1176				





## BIBLIOGRAPHY

### Books

- Anonymous & Doniger, W. (tn) (1981). *The Rig Veda*. London: Penguin Books
- Anonymous & Kern, H. (tn) (1909). *The Saddharma-Pundarîka or The Lotus of the True Law* [online]. Oxford: Clarendon Press. Available At: <https://atcive.org/details/in.ernet.dli.2015.400/page/n1/mode/2up> [Accessed 10 July 2024]
- Anonymous & Legge, J. (tn) (2020). *I Ching or The Book of Changes*. London: Flame Tree Publishing.
- Anonymous & Smith, J. (tn) (2009). *The Mahābhārata*. London: Penguin Classics
- Bleek, A. (1864). *Avesta: The Religious Books of the Parsees; from Professor Spiegel's German Translation of the Original Manuscripts, Volume 3: Khordah-Avesta*. Hertford: Muncherjee Hormusjee Cama.
- Blust, R. (2023). *The Dragon and the Rainbow: Man's Oldest Story*. [online]. Leiden: Koninklijke Brill NV. Available at: <https://brill-com.ezphost.dur.ac.uk/display/title/68234> [Accessed 4 June 2024]
- Chung, T. (1998). *Across the Himalayan Gap: An Indian Quest for Understanding China*. [online] New Delhi: Indira Ghandi National Centre for the Arts & Gyan Publishing House. Available at: [https://books.google.co.uk/books?id=5rtGvnMrCTQC&source=gb\\_s\\_navlinks\\_s](https://books.google.co.uk/books?id=5rtGvnMrCTQC&source=gb_s_navlinks_s) [Accessed 13 Feb 2024]
- de Plancy, J.C. (1863) *Dictionnaire Infernal: repertoire universal*. 6<sup>th</sup> edn. Paris: Henri Plon
- Egenes, L. & Reddy, K. (2016). *The Ramayana: A New Retelling of Valmiki's Ancient Epic – Complete and Comprehensive*. New York: TarcherPerigee
- Ferdowsi, A. & Davis, D. (tn) (2016). *Shahnameh: The Persian Book of Kings*. 3<sup>rd</sup> edn. New York: Penguin Books
- Gould, C. (1886). *Mythical Monsters*. London: W. H. Allen & Co.
- Goulet Jr., O. et al. (2015). *The Egyptian Book of the Dead: The Book of Going Forth by Day*. 3 ed. San Francisco: Chronicle Books LLC
- Jones, T. et al. (eds.) (2011). *Polynesians in America: Pre-Columbian Contacts with the New World*. Lanham: Altamira Press, pp.7-24
- Kadoi, Y. (2009). *Islamic Chinoiserie: the art of Mongol Iran*. Edinburgh: Edinburgh University Press Ltd.
- Leach, M. and Fried, J. (eds.) (1975). *Standard Dictionary of Folklore, Mythology and Legend*. 2<sup>nd</sup> edn. London: New English Lib.
- Lévi-Strauss, C. & Layton, M (tn). (1976). *Structural Anthropology Volume II*. [online] New York: Basic Books, Inc. Available at: <https://search-alexanderstreet->

[com.ezphost.dur.ac.uk/view/work/bibliographic\\_entity%7Cbibliographicdetails%7C4705325#page/1/mode/1/chapter/bibliographic\\_entity%7Cdocument%7C4705327](https://com.ezphost.dur.ac.uk/view/work/bibliographic_entity%7Cbibliographicdetails%7C4705325#page/1/mode/1/chapter/bibliographic_entity%7Cdocument%7C4705327) [Accessed 9 Aug 2024]

Mahanama & Geiger, W. (tn) (2018). *The Mahavamsa or The Great Chronicle of Sri Lanka*. UK: Amazon

Mallory, J. & Adams, D. (2006). *The Oxford Introduction to Proto-Indo-European and the Proto-Indo-European World*. Oxford: Oxford University Press.

Manogaran, C. (1987). *Ethnic Conflict and Reconciliation in Sri Lanka*. Honolulu: University of Hawaii Press.

Philippi, D. (1979). *Songs of Gods, Songs of Humans: The Epic Tradition of the Ainu*. Japan: University of Tokyo Press

Roberts, J. (2010). *Chinese Mythology A to Z*. 2 edn. New York: Chelsea House Publishers

Smith, G. (1919). *The Evolution of the Dragon*. Manchester: Manchester University Press.

Stephany, T. (2014). *Enuma Elish: The Babylonian Creation Epic*. 2 edn. USA: Createspace

West, M. (2007). *Indo-European Poetry and Myth*. Oxford: Oxford University Press.

Yasumaro, Hiyeda, n. A., Chamberlain, B. (tn), Aston, W. (annotator). (1982). *The Kojiki: Records of Ancient Matters*. Tokyo: Tuttle Publishing

Zgusta, R. (2015). *The Peoples of Northeast Asia through Time: Precolonial Ethnic and Cultural Processes along the Coast between Hokkaido and the Bering Strait*. [online] Leiden: Brill. Available at: <https://brill-com.ezphost.dur.ac.uk/display/title/3125> [Accessed 12 Aug 2024]

## Images

Anonymous (1991). *Zhongguo yu qi quan ji Vol.1: Yuan shi she hui*, pp.26 [image]. Shijiazhuang Shi: Hebei mei shu chu ban she

Anonymous (1991). *Zhongguo yu qi quan ji Vol.2: Shang, Xi Zhou*, pp.50, 51 [image]. Shijiazhuang Shi: Hebei mei shu chu ban she

Anonymous (1991). *Zhongguo yu qi quan ji Vol.3: Chun qiu, Zhan guo*, pp.24, 187 [image]. Shijiazhuang Shi: Hebei mei shu chu ban she

British Museum (2024). *Figure*. [image] [online] [https://www.britishmuseum.org/collection/object/W\\_1913-1022-1](https://www.britishmuseum.org/collection/object/W_1913-1022-1) [Accessed 25 June 2024]

British Museum (2024). *Mirror (십이생초문동경十二生肖文銅鏡)*. [image] [online] [https://www.britishmuseum.org/collection/object/A\\_1992-0615-55](https://www.britishmuseum.org/collection/object/A_1992-0615-55) [Accessed 12 July 2024]

British Museum (2024). *Painting; 繪畫 (Chinese)*. [image] [online]  
[https://www.britishmuseum.org/collection/object/A\\_1919-0101-0-11](https://www.britishmuseum.org/collection/object/A_1919-0101-0-11) [Accessed 10 July 2024]

British Museum (2024). *Panel*. [image] [online]  
[https://www.britishmuseum.org/collection/object/A\\_1899-0609-11](https://www.britishmuseum.org/collection/object/A_1899-0609-11) [Accessed 5 July 2024]

British Museum (2024). *Panel (sculpted slab)*. [image] [online]  
[https://www.britishmuseum.org/collection/object/A\\_1880-0709-61](https://www.britishmuseum.org/collection/object/A_1880-0709-61) [Accessed 5 July 2024]

British Museum (2024). *Terminal; balustrade*. [image] [online]  
[https://www.britishmuseum.org/collection/object/A\\_1887-0714-1](https://www.britishmuseum.org/collection/object/A_1887-0714-1) [Accessed 12 July 2024]

LACMA (2021). *Bahram Gur with the Dragon, Page from a Manuscript of the Khamsa (Quinter) of Nizami*. [image] [online]  
<https://artsandculture.google.com/asset/bahram-gur-with-the-dragon-page-from-a-manuscript-of-the-khamsa-quintet-of-nizami/aQGKnk9q5PDMKQ?ms=%7B%22x%22%3A0.5004393739730872%2C%22y%22%3A0.5003555417632094%2C%22z%22%3A9%2C%22size%22%3A%7B%22width%22%3A2.3537906137184117%2C%22height%22%3A1.2360178970917226%7D%7D>  
[Accessed 13 November 2021]

Staatliche Museen zu Berlin (2021). *Brick relief of a dragon, detail*. [image] [online]  
<https://artsandculture.google.com/asset/brick-relief-of-a-dragon-detail/jwEkwQrF5DZ4Uw>  
[Accessed 12 November 2021]

Tu, D., Shelach-Lavi, G., Fung, Y. (2022). Economy, sharing strategies and community structure in the early Neolithic village of Chahai, Northeast China. *Journal of Anthropological Archaeology*, Vol 67 pp.4 [image] [online]. Available at:  
<https://doi.org/10.1016/j.j.2022.101420> [Accessed 20 Nov. 2023]

Van Deusen, K. (1946). *The Flying Tiger: woman shamans and storytellers of the amur*. p.195 [image] [online] Canada: McGill-Queen's University Press. Available at :  
<https://ebookcentral.proquest.com/lib/durham/detail.action?docID=3331088&pq-origsite=primo> [Accessed 12 Aug 2024]

### Journal Articles

Barnard, M. (1965). A Dragon Hunt. *The American Scholar*, Vol. 33(3) [online], pp.422-427. Available at: <https://www.jstor.org/stable/41209205> [Accessed 4 June 2024]

Blust, R. (2000). The Origin of Dragons. *Anthropos*, Vol. 95(2) [online], pp.519-536. Available at: <https://www.jstor.org/stable/40465957> [Accessed 9 Jan. 2024]

Blust, R. (2019). Why Dragons are Bisexual: A Defense of Naturalism. *Anthropos*, Vol. 114(1) [online], pp.169-180. Available at:  
<https://www.stor.org/stable/10.2307/26790643> [Accessed 4 June 2024]

Delaby, L. & Beffa, M-L. (1998). Écailles de dragon et têtes d'ours – chez les Nivkhs. *Études mongoles et sibériennes*, Vol. 29 [online], pp.135-177. Available at:  
[https://www.persee.fr/doc/emong\\_0766-5075\\_1998\\_num\\_29\\_1\\_1134](https://www.persee.fr/doc/emong_0766-5075_1998_num_29_1_1134) [Accessed 12 Aug 2024]

- Faulkner, R. (1938). The Bremner-Rhind Papyrus: IV. *The Journal of Egyptian Archaeology*, Vol. 24(1) [online], pp.41-53. Available at: <https://www.jstor.org/stable/3854676> [Accessed 22 Apr. 2022]
- Gangal, K., Sarson, G., Shukurov, A. (2014). The Near-Eastern Roots of the Neolithic in South Asia. *Plos One*, Vol. 9(5) [online], pp.1-6. Available at: <https://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0095714&type=printable> [Accessed 28 June 2024]
- Laufer, B. & Pelliot, P. (1913). Arabic and Chinese Trade in Walrus and Narwhal Ivory. *T'oung Pao*, Vol. 14(3) [online], pp.315-370. Available at: <https://www.jstor.org/stable/4526349> [Accessed 10 Jan. 2024]
- Lincoln, B. (1976). The Indo-European Cattle-Raiding Myth. *History of Religions*, Vol. 16(1) [online], pp.42-65. Available at: <https://www.jstor.org/stable/1062296> [Accessed 28 Sept. 2021]
- Monta, S. (2012). Nihon kodai ni okeru gohōryū kankei shutsudo moji shiryō no shiteki haikei. *Bukkyō Daigaku Shūkyō Bunka Myūjiamu Kenkyūj Kiyō*, Vol. 8 [online], pp.5-27 Available at: <https://archives.bukkyo-u.ac.jp/rp-contents/SB/0008/SB00080R005.pdf> [Accessed 10 July 2024]
- Shahbazi, A. (2017). Irano-Hellenic Notes: 1. The Three Faces of Tigranes. *American Journal of Ancient History*, Vol. 102 [online], p.124-136. Available at: <https://www-degruyter-com.ezphost.dur.ac.uk/document/doi/10.31826/9781463237547-002/html> [Accessed 21 June 2024]
- Tu, D., Shelach-Lavi, G., Fung, Y. (2022). Economy, sharing strategies and community structure in the early Neolithic village of Chahai, Northeast China. *Journal of Anthropological Archaeology*, Vol 67 [online]. Available at: <https://doi.org/10.1016/j.jaa.2022.101420> [Accessed 20 Nov. 2023]
- Wessing, R. (2006). Symbolic Animals in the Land between the Waters: Markers of Place and Transition. *Asian Folklore Studies*, [online] Vol. 65(2), p.205-239 Available at: <https://www.jstor.org/stable/30030399> [Accessed 14 May 2022]

#### Presentations

- Blench, R. (2008). *The Prehistory of the Daic (Tai-Kadai) Speaking Peoples and the Hypothesis of an Austronesian Connection* [online]. Available at: <https://www.rogerblench.info/Language/Daic/Daic%20prehistory%20paper%20EURASEAA%202008.pdf> [Accessed 9 Jan 2024]

#### Websites

- The Khalili Collections, (2024). *Pair of 'Door Handles'* [online]. Available at: <https://artsandculture.google.com/asset/mgHLSG6PcZEzrA?childassetid=CgGG74CbEm1xgQ> [Accessed 26 Aug 2024]

Oxford English Dictionary, (2024). *Dragon* [online]. Available at: [https://www.oed.com/dictionary/dragon\\_n1?tab=meaning\\_and\\_use#6230553](https://www.oed.com/dictionary/dragon_n1?tab=meaning_and_use#6230553) [Accessed 22 April 2025]

Skjærvø, P., Khaleghi-Motlagh, D., Russell, J. (2011). *AŽDAHĀ* [online]. Available at: <https://www.iranicaonline.org/articles/azdaha-dragon-various-kins> [Accessed 21 June 2024]