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Late Neolithic and Early Chalcolithic Glyphs and Stamp Seals in the British Museum

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Front cover: Chalcolithic glyph from Tepe Giyan, near Nahavand in western Iran. British Museum, 1936,0613.45 (Cat. 141)

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Contents

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Chapter 1
Introduction

This book is about prehistoric Middle Eastern stamp seals. However, in this volume they are called glyphs as a central tenet of the book is that stamp seals were not primarily objects for stamping or sealing. As such this book is about glyphs; a term from the French via Greek that is often used to describe a carved or engraved symbol. Glyptic is already a well-used term when referring to seals as a group. The greatest advantage of using the term 'glyph' is that it defines the object in terms of its design rather than a specific use. The indiscriminate usage of terminology has hindered the study of glyphs as a functional term has been used descriptively to equate type with function. Using 'glyph' instead of 'seal' replaces a functional typological term with a descriptive typological term that does not prejudice classification.

This book focuses on glyphs from their earliest appearance in the Late Neolithic through to the Early Chalcolithic. The first half of this book presents a reinterpretation of Late Neolithic glyphs from Mesopotamia. The second half is a catalogue of the British Museum's 164 Late Neolithic and Early Chalcolithic glyphs, from the 7th millennium BC down to the early 4th millennium BC. It is the third catalogue of Middle Eastern stamp seals from the British Museum: the other two cover Sassanian seals (Bivar 1969) and Islamic amulets and seals (Porter 2011).

The Late Neolithic is a term that covers much of the 7th and 6th millennia BC (Bernbeck and Nieuwenhuyse 2013) in Syria, south-east Turkey and northern Iraq. It comprises a range of chronological culture-historical periods including the Pottery Neolithic, the Halaf, the Halaf-Ubaid Transitional and the Early Northern Ubaid. Late Neolithic glyphs are small, normally stone objects with incised, mostly geometric, designs which have traditionally been associated with the means to create impressions and sealings. This ability has often been associated with showing ownership or possession and is normally connected to bureaucratic acts. Interpretation of early glyphs as bureaucratic objects has been ubiquitous since Mallowan labelled the glyphs from Tell Arpachiyah as 'seal pendants' in 1935, stating:

> It seems probable that these seal pendants, all of which have different markings, must have been used as identification signs indicating individual ownership, and that these vague scratchings were the nearest approach to writing made by the primitive inhabitants of Arpachiyah. (Mallowan and Rose 1935, 91)

However, the earliest glyphs do not fit a general narrative of denoting ownership or bureaucracy. The society they are found in has little to no evidence of inequality or social structures and is very varied with a great range of settlement patterns; from 20-hectare sites such as Tell el-Kerkh in north-west Syria to half hectare sites such as Arpachiyah, near Mosul, Iraq. Many settlements were based on rain-fed agriculture and pastoralism while others emphasised hunting and the utilisation of natural resources (Pollock 2011, 32; Akkermans and Schwartz 2003, 127–8). Communities were mobile in both the short and long term with many sites occupied for only a few generations (Pollock 2011, 32; Akkermans and Schwartz 2003, 119; Campbell 2007). A number of excavations in the past few decades (e.g. Bernbeck

2008; Nieuwenhuyse 2007; Nieuwenhuyse, Bernbeck and Akkermans 2013; Özbal 2012; Pollock 2011) have greatly advanced our understanding of the period and its people and countered traditional views of monolithic culture-historic periods. This work has emphasised the localism and variety of the Late Neolithic, a diverse period with an incredible variety of social practices united by shared aspects of material culture. This diversity means that at a regional level the number of people in the Late Neolithic who interacted, what they believed in and the various societies in which they lived are still being identified. Some objects cut across the diversity, in particular pottery and architecture styles, clay figurines and glyphs which all, presumably in a variety of ways, connected the wide range of people who lived in different communities in the Late Neolithic world.

Despite the recognition in recent decades of the Late Neolithic's significance, little has changed in the interpretation of glyphs. The central aim of this volume is to offer a re-interpretation of glyphs based on their context and material evidence. I will argue that, instead of reflecting bureaucracy or ownership, glyphs were objects that united people within the Late Neolithic 'world' while being used for efficacious purposes on a sub-community level.

This study covers 651 glyphs, many from sites outside the collection of the British Museum such as Domuztepe and Tell el-Kerkh. Glyphs from the British Museum in the catalogue are referred to in the text as 'Cat. 1' etc. The remaining glyphs are presented on a website (http://www.shdenham.co.uk).

Much of the research in this book was conducted as part of a Collaborative Doctoral Award funded by the Arts and Humanities Research Council and divided between the University of Manchester and the British Museum during 2009–13. The emphasis of that thesis was on Late Neolithic glyphs, although the catalogue in this book also includes the small number of provenanced Late Ubaid and early Late Chalcolithic glyphs in the British Museum's collection. Unless noted differently all dates are in calibrated years BC.

Chapter 2
The Late Neolithic

The Late Neolithic of the Middle East as a unitary concept is a relatively modern creation which emerged in the last decades of the 20th century to emphasise the links between related culture-historical periods, in particular the Pottery Neolithic and the Halaf. Loosely framed it covers most of the 7th and 6th millennia BC (**Table 1**) and spreads in a band from around Mersin, south central Turkey, in the west to Sulaymaniyah, north-east Iraq, in the east (see below for a discussion of the physical limits). In culture-historical terms the period has been seen as a transitionary one between the (Early) Neolithic Revolution and the (Late) Chalcolithic Urban Revolution. While this narrative has been increasingly challenged it is not uncommon for the Late Neolithic to be dismissed as relatively less interesting than both what came before and what came after (e.g. Schmidt 2006, 256).

Period dates in the book derive from a pottery typology synthesis by Bernbeck and Nieuwenhuyse (2013). The Late Neolithic (LN) begins around 7000 BC with the Pottery Neolithic (LN 1 + 2) and this period is constituted by several region-specific pottery typologies such as the Hassuna, Samarra, Amuq A-B or Rouj 2b-c. The transition from Early to Late Neolithic is poorly understood and might have been caused by environmental or climatic elements (Akkermans 1993, 168–72; Bar-Yosef and Bar-Yosef Mayer 2002; Simmons 2000) and is characterised by a shift in settlement and subsistence practices with a decrease in settlement and archaeological deposit density (Kuijt 2008, 298). The Pottery Neolithic lasts until around 6300 BC before a transitional period (LN 3 + 4) that lasts until around 5900 BC before the Halaf begins. The transitional period is best published through excavations at Tell Sabi Abyad (e.g. Nieuwenhuyse 2007) but remains relatively ambiguous. The Halaf (LN 5) lasts until around 5300 BC and Halaf style pottery is spread across a vast region from the Levantine coast to Baghdad (Nieuwenhuyse 2007, 9). This is followed by the Halaf-Ubaid Transitional period (LN 6) which lasts somewhere between 5300 and 5100 BC (Davidson 1977; however, see Campbell and Fletcher 2010 for a discussion of the problems with dating the Halaf-Ubaid Transitional), which is very poorly known but leads into the Early Northern Ubaid (*c.* 5100–4500 BC). The transition from the Halaf to Ubaid pottery tradition 'is generally thought to have encompassed much more profound cultural change than just pottery classification' (Bernbeck and Nieuwenhuyse 2013, 4), but this transition is not reflected in the glyptic which remains predominantly unchanged well into the late 5th millennium BC (von Wickede 1990, 126) and consequently the early (Northern) Ubaid is included in this book.

Theoretical overview of the Late Neolithic

The Late Neolithic is not a monolithic culture and even within its constituent parts there is huge local variation. While the culture-historical periods that make up the Late Neolithic are polythetic, pottery dominates the definition of all of them and the chronology outlined above is almost exclusively based on ceramic typologies. The other components that have traditionally defined the different culture-historical periods are not unique to any one period, for example the Halaf is traditionally defined as having a

Category	Bernbeck and Nieuwenhuyse stage	Culture-historical period	Chronological years
Early Neolithic		Pre-Pottery Neolithic B	*c.* 8500–7000 cal. BC
Late Neolithic	LN1–LN2	Pottery Neolithic	*c.* 7000–6300 cal. BC
	LN3–LN4	Transitional PN/Pre-Halaf	*c.* 6300–5900 cal. BC
	LN5	Halaf	*c.* 5900–5300 cal. BC
	LN6	Halaf-Ubaid Transitional	*c.* 5300–5100 cal. BC
Early Chalcolithic		Early Northern Ubaid	*c.* 5100–4500 cal. BC
		Late Northern Ubaid	*c.* 4500–4000 cal. BC
Late Chalcolithic		Late Chalcolithic/Uruk	*c.* 4000–3000 cal. BC

Table 1 Chronology followed in this volume (after Bernbeck and Nieuwenhuyse 2013, 27)

range of common features such as 'a particular subsistence, a distinct settlement system, a unique type of round building, and specific types of human figurines and stamp seals' (Nieuwenhuyse 2007, 9). However, all of these features are also found at Pottery Neolithic sites with the only real change being in pottery styles (Nieuwenhuyse 2007, 213).

This is problematic as the Halaf has traditionally been seen as 'the first occurrence in Southwest Asia of a widespread cultural horizon' (LeBlanc and Watson 1973, 117). Much previous work on the Late Neolithic has been based around explaining the origin and the end of the Halaf, with very little appreciation that the 'Halaf' is essentially a way of making and decorating pottery, and by extension is therefore largely related to consumption practices (e.g. Campbell 2007).

The earliest interpretations of the Late Neolithic and its constituent parts are culture-historical models from the early 20th century which equated ethnicity with groups and objects, implying one group of objects is contingent to one group of people (Jones 1997, 36). When cultures changed, this was commonly seen as a result of migration or diffusion. For example, Mallowan explains the change from the Halaf to the Ubaid levels at Tell Arpachiyah as an invasion:

> It is more than probable that the Tall Halaf peoples abandoned the site on the arrival of the new-comers from Babylonia; and with the disappearance of the old element the prosperity of the site rapidly declined; for, although the new-comers were apparently strong enough to eject the older inhabitants, yet they appear to have been a poor community, already degenerate: their houses were poorly built and meanly planned, their streets no longer cobbled as in the Tall Halaf period, and the general appearance of their settlement dirty and poverty stricken in comparison with the cleaner buildings of the healthier northern peoples who were their predecessors. (Mallowan and Rose 1935, 14)

The ideological underpinning of culture-historical perspectives was based on a different understanding of the relationship between material culture and social groupings than today. In part this was because at Arpachiyah, the de facto type site for the Halaf until more recent excavations (Campbell 2000, 1), there is no evidence of the Halaf-Ubaid transition and there appeared to be a break between the two periods. Evidence for transitions in the Late Neolithic remains rare, and the Halaf, 'until very recently appeared on the scene from nowhere, full-blown and without any convincing antecedents' (Nieuwenhuyse 2007, 24).

Culture-historical analyses that 'explained' the reason for the Halaf's existence through migrationary and diffusionist theories are the most common interpretations of the Late Neolithic. There is a wide range of literature that postulates a variety of cultural origins, including from the Khabur (Amiet 1980a, 50; Davidson and Watkins 1981, 11), the Mosul region (Dabbagh 1966; Perkins 1949) or the Anatolian plateau (Bogoslavskaja 1972; Mellaart 1965, 119). There are more complex interpretations such as Kirkbride (1972) who suggested that the 'Halafians' were first the 'Hassunans' and then the 'Halafians'. Kirkbride's idea is the most subtle in that it acknowledges links between Hassuna pottery, one of the constituent elements of the Pottery Neolithic focused in northern Iraq, and Halaf pottery, thereby making connections between peoples across time and geography. Most other interpretations treat the Hassunans, and by extension the people of the Pottery Neolithic generally, as people who were moved from one area to another and disappeared without a trace (e.g. Forest 1996, 36, 39). The problem with these analyses is that they are only justifiable when transitions appear to be discontinuous. In the Late Neolithic of north Mesopotamia, where there is clear, if rare, evidence of continuous transition, they are not sustainable.

From the 1960s onwards new theoretical models began to develop which remain some of the most common interpretations of the Late Neolithic. These early social evolutionary models argued that culture can be grouped in stages which societies rise through. It is from these theories that the concept of the Late Neolithic as a transitional period between agriculture and sedentism and state societies derives. Based on the work of, most famously, Freid (1967) and Service (1962) evolutionary ladders were created with rungs, such as tribes or chiefdoms, reflecting the different levels of social complexity that ultimately culminated in modern nation states. Through social evolutionary approaches, the achievements of the past can be framed in relation to us. Hence, Mesopotamia is the 'cradle of civilisation'. Late Neolithic social evolutionary approaches never moved beyond the existing culture-historical units, and were largely concerned with defining the social complexity of the Halaf. The first, and most influential attempt, was that of LeBlanc and Watson (1973). They argued that the Halaf was a ranked or chiefdom-led society with close-knit unity, based on high quality pottery which was used as a tool of elite legitimisation. Breniquet (1996)

and Forest (1996) rejected this, and argued that the Halaf was a tribal system with unintegrated institutions which dealt with societal problems by fissioning. When the tribes ran out of space to expand, the tribal system began to collapse, and they copied the Ubaidian chiefdom system (Breniquet 1996, 118–19; Forest 1996, 55). Social evolutionary approaches have been heavily criticised for wide-ranging failures to actually define what the rankings represent, and the qualitative differences between them (e.g. Feinman and Neitzel 1984).

Evolutionary approaches to the Late Neolithic, and Middle Eastern prehistory in general, have influenced the study of glyphs because of the association between administrative sealing practices and redistribution and exchange in the emergence of ranked societies. This is particularly important in the Middle Eastern sphere because interpretations of early states in the Late Chalcolithic and Uruk periods of the 4th millennium BC are argued to have relied on redistribution often controlled by sealing practices to keep societies under control (Algaze 2001; Frangipane 2001; Liverani 2006). This material imbalance created opportunities and incentives that made it both possible and probable that early Mesopotamian elites used trade as one of their earliest and most important tools to legitimise and expand their unequal access to resources and power. Much of the discussion of evolutionary models in the Middle East was atheoretical, being only implicitly based on the work of neo-evolutionary anthropologists or archaeologists such as Renfrew (1972) or Flannery (1972) with only a few Middle Eastern archaeologists such as Adams (1966), Wright (1977) or Johnson (1973) espousing such theories.

Almost as common as social evolutionary approaches are typological ones which are primarily concerned with change during the Late Neolithic. These studies focus more on elucidating what altered over the Late Neolithic as opposed to explaining the change. While there are few standalone studies that deal solely with typological change, many works include discussions of typology (e.g. Akkermans *et al.* 2006; Weeks, Petrie and Potts 2010) particularly when the studies relate to chronological or pottery classifications (which in many contexts remain largely interchangeable). A good example of a study that is primarily typological is a review of relatively new data in the Pottery Neolithic of Syria by Cruells and Nieuwenhuyse (2004) who intended 'to give a brief, factual account of some of the ongoing fieldwork projects' (Cruells and Nieuwenhuyse 2004, 48). The article discusses the pottery data from a range of sites in Syria and outlines potential directions for further research. Studies of this type, though deliberately a-critical, set the framework for more analytical or theoretical research.

Symbolic approaches, where 'the iconographic symbolism of the decorated ceramics is seen as a metaphor for the expression of religious belief-systems or cognitive structures' (Nieuwenhuyse 2007, 19), are less common. Such approaches attempt specifically to interpret the geometric and figurative designs of Halaf pottery. For example, Forest (1996, 26–35) argues that designs based on rotational symmetry of stars and birds are the 'principle deity of creation' while goats, scorpions and fish symbolise the domestic world. Symbolic approaches often do not attempt to explain why or what changes as regards to the iconography, and tend to fall back on social evolutionary perspectives. The most influential example is Cauvin (2000) who explains the Neolithic's origins as a symbolic revolution based around the supreme female goddess and the bull, but justifies this change through an unexplained cognitive shift (Cauvin 2000, 208–10). Various scholars have developed Cauvin's arguments; Stordeur (2010), for example, suggests that the differences in visual symbolic material between the early Pre-Pottery Neolithic B and the middle and late Pre-Pottery Neolithic B reflects a clear, though not definitive, shift in attitudes towards animals from being seen as wild or ferocious to domestic and dominated (Stordeur 2010, 126–8). Watkins (2010) makes a similar argument to Cauvin and explains the Neolithic Revolution in the Middle East by improved cognitive capabilities of humans, though his focus is primarily on the Natufian–Pre-Pottery Neolithic transition. Another recent example that explicitly covers the Late Neolithic is Costello (2011) who argues that certain symbols visible from 9000 BC until 4000 BC such as raptors and snakes, have cognitive semi-universal interpretations (Costello 2011, 257). This means that despite the changes in society over time some of the visual traditions of the Early Neolithic may have persisted into the Late Chalcolithic (Costello 2011, 260). The issue with symbolic and cognitive arguments is twofold: firstly, for the large part, they passively track changes in material culture without critical evaluation or theorisation and secondly, they justify change through undefined cognitive functions. The examples above provide no physiological evidence for the principle of cognitive evolutions and treat the 'mind' as if it was something separate from the physical world, with a single meaning that can be progressively unlocked through material culture studies (Thomas 2004, 180–2).

There are other approaches that I would group as structuralist and post-structuralist archaeologies (often grouped within post-processual or interpretive archaeology), though these only rarely explicitly cover the Late Neolithic on a large scale. Structuralism and post-structuralist are 20th-century methodologies; structuralism holds that human culture is best understood as part of a system deriving from the works of scholars such as Saussure, Lévi-Strauss and Bourdieu (see Johnson 1999, 90–2, 98–115 for a brief discussion as it relates to archaeology). Post-structuralism is a reaction against structuralism which, generally, holds meaning to be relative and has been most influential in an archaeological context through the work of Foucault (see Johnson 1999, 165–8 for an overview). While structuralism pre-dates post-structuralism in many areas their impact on archaeology was largely contemporaneous with early post-processualists using a mixture of ideas from both ontologies. Within the field of Middle Eastern archaeology, structuralist approaches have been considerably more influential. This derives in large part from the work of Hodder (1990) whose explanation of the origins of the Neolithic in Europe draws an opposition between the 'domus' (the house, the cultural, the female) and the 'agrios' (the field, the natural, the male) (Hodder 1990, 85–6) with the relation between them mediated by the 'foris' (boundaries, doors, transitions) (Hodder 1990, 130). Most

hierarchical designs	non-hierarchical designs
geometrical motifs	figurative motifs
no dots	sometimes dots
'generalised' meaning	'specific' meaning
serving and consumption	storage
'foreign'	'local'
exterior surfaces	interior surfaces

Table 2 Examples of oppositions used by Nieuwenhuyse (adapted from Nieuwenhuyse 2007: 212)

archaeological structuralism derives from the work of Saussure via Lévi-Strauss, who argued that dualisms (such as male:female, back:front, or death:life) could be identified as representing something of the structuring principles in society (Preucel and Bauer 2001, 86). These principles are a hidden analogy that can be revealed through observing material traces of social practices. While Lévi-Strauss suggested these dualisms might be universal (Tilley 1989) most archaeological structuralism has argued meaning is contextual and mediated through social practices.

Structuralism in archaeology is limited through its reliance on the concept of oppositions. Dividing society on set oppositions that modern societies recognise, for example Hodder's (1990, 8–13) dualism between the civilised and the wild, can easily be challenged on the grounds of Eurocentrism. More theoretically structuralist approaches maintain the modernist idea that the mind gives meaning to 'a Cartesian world of inert substance' (Thomas 2004, 214). Hence 'material culture is distinguished as that aspect of the material world that communicates, and is meaningful' (Thomas 2004, 214). This ontological position places humanity as the only source of meaning in the world and suggests the world is a passive recipient of meaning. For the Late Neolithic the only major structuralist approach is that of Nieuwenhuyse (2007) who looks at what the phenomenon of painted pottery might represent, and identifies a number of oppositions including those outlined in **Table 2**.

Nieuwenhuyse is aware of the critiques of structuralism and clearly states he does not think the oppositions he has identified are universal (2007, 30) and his conclusions relate just to the Late Neolithic. The work is focused on Tell Sabi Abyad and the origins of the painted pottery that is found across the Late Neolithic in the Halaf and is therefore relatively limited in scope. It discusses how the pottery styles and consumption practices could have moved through a combination of subsistence mobility, exchange and possible craft-specialisation but suggests that emulation and feasting played important roles (Nieuwenhuyse 2007, 218–19). Emulation is used to suggest that much of the 'ceramic innovation discussed in this book may be seen as designed to maintain a degree of exclusivity for a particular set of pottery' (Nieuwenhuyse 2007, 221). People and communities emulated other people's or communities' styles 'to distinguish those who used them' (Nieuwenhuyse 2007, 223). Nieuwenhuyse argues that the context of this emulation was competitive feasting which could mask inequalities, promote the hosting group and enable people to develop reciprocal debts as well as more specific practices (Nieuwenhuyse 2007, 225) and suggests feasting actions could have been the mechanism to tie all the small sites into their regional contexts (Nieuwenhuyse 2007, 225). Nieuwenhuyse's focus on pottery limits what he can say; while he acknowledges that some of the material similarities across the Late Neolithic pre-date the development of Halaf and Transitional pottery styles (Nieuwenhuyse 2007, 214–15) he does not attempt to explain this. As such Nieuwenhuyse puts forward a compelling argument for the spread of pottery styles in the Late Neolithic which cannot be extrapolated to the wider aspects of shared material culture of the period.

There have been no large-scale post-structuralist interpretations of the Late Neolithic that have attempted to explain the variety of that world as a whole. The works of scholars including Bernbeck (2008), Campbell (2007), Pollock (2011) and Wengrow (2008), among others, can be fitted into post-structuralist thought, although they do not use these labels themselves. It is a developing area within Middle Eastern archaeology and certain scholars are beginning to offer larger scale interpretations. For example Campbell and Fletcher (2013) offer an interpretation of the material similarities in the Late Neolithic. They take the same starting point as Nieuwenhuyse that Late Neolithic material culture 'facilitated communication between groups within settlements, between settlements and within regions'. They suggest that this allowed objects symbolising shared practices, particularly consumption, along with other objects to help integrate society through common symbols and a material lack of hierarchy. These practices operated within a world that, to some degree, had a 'shared understanding of symbols, and perhaps even shared social narratives and myths across a very wide region' (Campbell and Fletcher 2013, 45). More generally, they also see the Late Neolithic as a period with high mobility which helped ideas and material culture move more easily. This is a powerful argument as it allows for great multiplicity and localism within the Late Neolithic while also providing the setting for the similarities across the period. There are multiple examples of material culture that appear to fit into the idea of a shared ideology; a good example of this is the pendant in the form of a structure illustrated in **Figure 1**. Similar looking structures are shown on pottery from Domuztepe (Atakuman 2015, fig. 14), Arpachiyah (Hijara 1978, fig. 1) and Tell Sabi Abyad (Nieuwenhuyse 2007, 10 20, fig. 2.2.4), as well as another pendant from Tell el-Kerkh (Tsuneki *et al.* 1999, fig. 13.5) (see **Fig. 2** for location of sites). Whether this is a specific building or not, the presence of this same figural element on a range of medium shows clear symbolic continuity across the Late Neolithic, even if the societies they symbolise are different. What this argument suggests is that it is incorrect to treat the Late Neolithic as an archaeological culture. Instead, it makes more sense to view the Late Neolithic as a collection of shared symbols that spread across otherwise disparate societies.

This fluid dynamic is reinforced by settlement patterns in the Late Neolithic. Akkermans (2013) and Bernbeck (2013) both argue that these patterns should not be seen as central communities with networks of hamlets, but rather multi-layered settlements in constant flux with a permanently semi-mobile population. The implications of this are important for our understanding of the Late Neolithic. The

populations living in this period were highly mobile with long distance trade routes, frequent contact between communities and shared material culture. Although the period probably had a fairly low population density, there were also many small settlements, hamlets and campsites that are almost archaeologically invisible (Banning 1998, 230) with occupation across much of Upper Mesopotamia. If one thinks of the Late Neolithic not as a world dominated by permanent settlements and territories, but as a world of fluid boundaries with a high level of mobility, the archaeological remains makes more sense and matches the material evidence of a few types of material culture shared across a varied space. Many Late Neolithic buildings seem to have been quite ephemeral and many settlements were both short lived and small. Fıstıklı Höyük for example is just 0.5 hectares and was occupied for only 100–150 years (Campbell 2007, 13). Bernbeck (2008) argues that people lived in a state of pseudo-permanent mobility at such sites, tracing a narrative at Fıstıklı Höyük from its initial occupation as a campsite of people who came from another 'focal' site through its becoming a 'focal' site itself, before it too gradually declined as people left for new sites. It was finally abandoned by permanent settlers but was still used by transitory persons. While this argument was designed explicitly to explain practices at Fıstıklı Höyük, it suggests many of the small sites visible in the Late Neolithic may well have been parts of wider communities with individual sites being only 'a section of a much larger, dynamic' community (Bernbeck 2008, 65). Bernbeck argues that sedentism should not be contrasted with mobility and the traditional separation between sedentary villages and close-knit mobile groups is inappropriate; living in dispersed multiple settlements is no less 'normal' than sedentism (Bernbeck 2008, 66). It seems that some Late Neolithic communities, or parts of communities, may have been in an almost permanent state of flux.

While such practices may explain the small-scale sites of the Late Neolithic, there are also a number of large sites occupied for long periods of time. These have traditionally been interpreted as 'anchor sites which were probably invested with considerable social and ritual meaning' (Akkermans and Schwartz 2003, 150). However, more recent work has shown that the majority of large sites should not be considered as a single site. At Tell Sabi Abyad (~5 hectares) the excavators argue that it was actually a number of distinct 0.5–1 hectare settlements which moved around, with little of the site continuously occupied (Akkermans *et al.* 2006, 151). Domuztepe (~20 hectares) appears to be an exception to this as the majority of the site was occupied in the late Halaf (Campbell *et al.* 1999, 400). It is however possible that Domuztepe consisted of spatially bounded areas with different groups living in the same location (Campbell and Fletcher 2013, 42). Individual areas at the site were differentiated through decoration on pottery (Fletcher 2008). The quality of the data is too low on many of the other large sites. Many larger sites like Takyan Höyük (Algaze 1989) or Mounbatah (Akkermans 1989) are unstudied and it is conjectural if any of them represent large single community settlements or conglomerated small community settlements.

Figure 1 Pendant in the form of a structure from Tell Arpachiyah (British Museum (hereafter BM), 1934,0210.343)

Future work may elucidate the community organisation at large Late Neolithic sites but archaeologically speaking the evidence available suggests they should not be seen as 'anchor' sites as there are too few (none are known in Iraq) and the visible practices do not suggest the existence of an economic or political centre. They may well have had important social roles, allowing different mobile communities to mix, or by playing ritual or ideological roles, but with the present level of knowledge we cannot be certain.

The evidence does suggest that there was a distinction between the sites, assuming that the larger sites were conglomerations; one site could have contained many communities or parts of communities living in the same place, and another site may have contained part of a community that was spread around multiple sites. This is further evidenced by the lack of cemeteries; while one is known from Tell el-Kerkh (Tsuneki and Hydar 2011), for the large part we do not know how people in the Late Neolithic disposed of their dead. If communities were not centred on individual sites it is unlikely that burials would have been site-specific.

The Late Neolithic is the result of long patterns of continuity and indigenous change within a disparate world, involving different material practices and societies. Whilst the culture-historical framework has largely been deconstructed, the concept of archaeological cultures as bounded monolithic entities is still often assumed (Jones 1997, 129), limiting the comprehension of the Late Neolithic.

In practice the Late Neolithic is a set of shared imagined communities, which are visible through material culture and some practices, i.e. performance-based mortuary rituals or emulative consumption practices. The Late Neolithic is therefore a unifying term that emphasises the connectedness of societies spread across parts of Upper Mesopotamia in the 7th, 6th and 5th millennia BC.

Physical geography of the Late Neolithic Upper Mesopotamia

The region covered by the term Late Neolithic ranges loosely from the Levantine coast to Baghdad in an arc, with

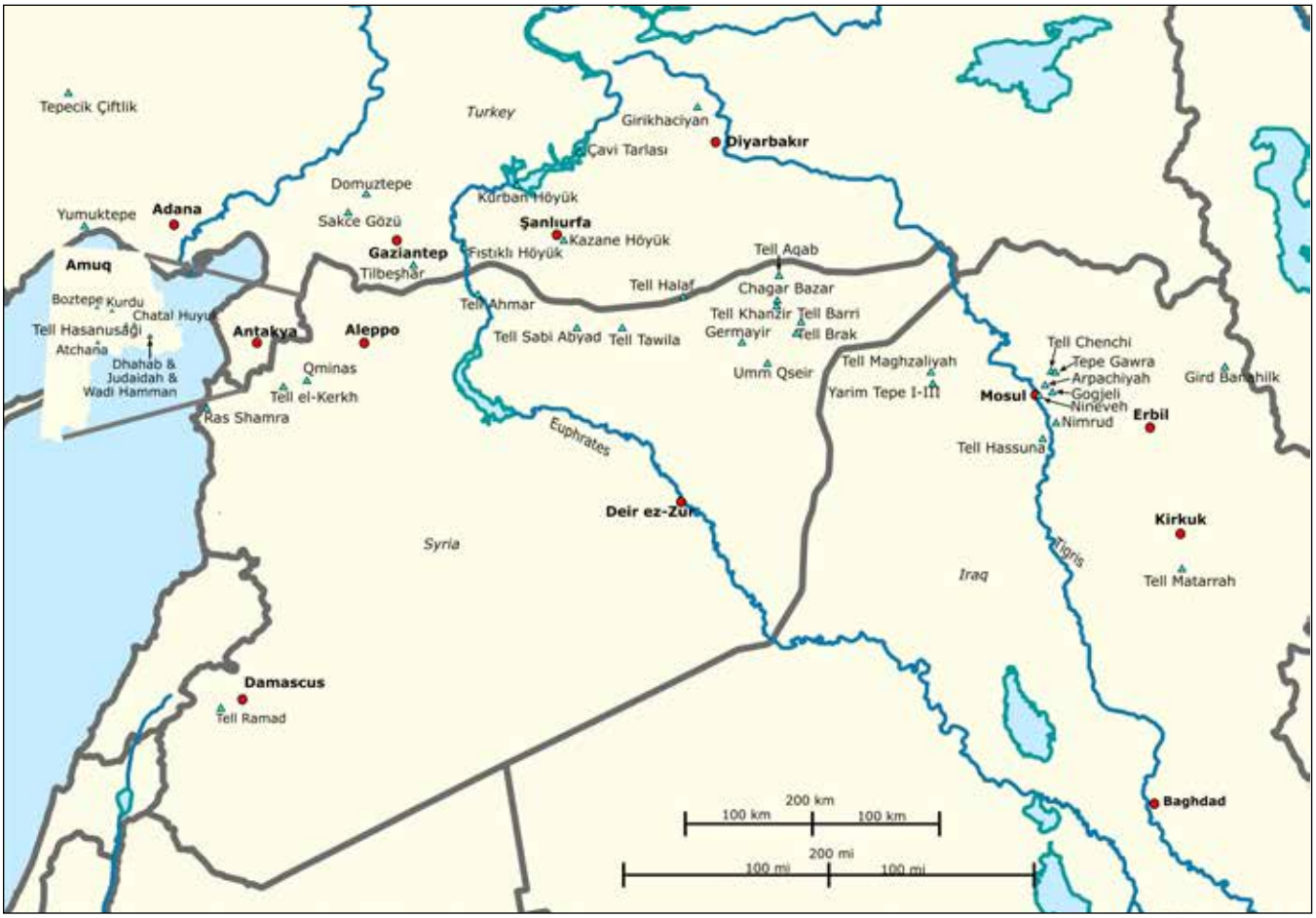


Figure 2 Map showing sites with glyphs mentioned in this book (drawn by the author)

key regions including the Iraqi Jazirah and the Turkish and Syrian Euphrates basin. Throughout this book this region is generically referred to as 'Upper Mesopotamia' following Bernbeck and Nieuwenhuyse (2013). This is not a uniform environment and is ecologically varied with a mixture of valleys, foothills and plains. Many settlements are known from valleys, in various tributaries of the Tigris and Euphrates like the Khabur (e.g. Tell Halaf) or Balikh (e.g. Tell Brak) but also parts of the Orontes like the Rouj basin (Tell el-Kerkh). Other settlements are located on plains like Domuztepe on the Gaziantep Plain or Judaidah in the Amuq Plain and yet more are in hilly areas such as Gird Banahilk in Iraqi Kurdistan. Archaeologically there is no centre for the Late Neolithic, or any evidence that its characteristics began in one place and spread. Late Neolithic sites are common across the entirety of Upper Mesopotamia, particularly from the Halaf onwards. The archaeological evidence of the Pottery Neolithic in northern Iraq is limited, however there are a few well-published sites although many of the excavations took place a number of years ago with most of the evidence from Yarim Tepe I, Tell Sotto, Tell Seker and Tell Magzaliah. Tell Samarra and Tell Hassuna were both excavated too long ago to provide much detailed evidence. Recent work has begun to counter this, particularly in Iraqi Kurdistan where more Pottery Neolithic sites have been identified (e.g. Altaweel *et al.* 2012). The survey data suggests that the absence of Pottery Neolithic in northern Iraq relates more to decades in which there were no published excavations in Iraq. **Figure 2** shows all the Late Neolithic sites with glyphs mentioned in the text.

Upper Mesopotamia does not have hard boundaries, beyond the curve discussed above; on either axis there is a considerable grey area where regions gradually lose the connected elements. For example, to the north and north-east, beyond the Taurus mountains, there is some Halaf or Halaf-influenced material at least into Armenia and Azerbaijan (Hansen, Mirtskhulava and Bastert-Lamprichs 2013, 389; Sagona 2011, 686). However the presence of a few sherds does not mean these societies were closely connected with Late Neolithic society but they may well have traded with Upper Mesopotamia.

Late Neolithic glyphs

Late Neolithic glyphs for the large part are not found outside of the region shown in **Figure 2**. To the east there are Iranian glyphs from the Early Chalcolithic in the 5th millennium BC with designs similar to Late Neolithic glyphs. These glyphs were largely excavated in the early 20th century with numbers coming from sites such as Tepe Giyan (Herzfeld 1933) or Tall-i-Bakun (Langsdorff and McCown 1942). It is hard to know what to make of these similarities and how the seals are related to earlier Upper Mesopotamian examples. They are not chronologically concurrent and are found in societies that are not derivative of the Late Neolithic of Upper Mesopotamia. There is no clear relationship between the glyphs from Iran and the glyphs from Neolithic Northern Mesopotamia other than style.

To the west a few Late Neolithic glyphs have been found in central or western Turkey. Late Neolithic glyphs are found in both the Niğde and Nevşehir provinces of Turkey. However, with the exception of Tepecik-Çiftlik near Niğde, all are unprovenanced and are part of museum collections. Tepecik-Çiftlik does have clear Late Neolithic-style glyphs, three of which are published (Biçakçi, Godon and Çakan 2011). They show parallels to glyphs from Kazane Höyük, Yumuktepe and Tell Sabi Abyad. Tepecik-Çiftlik is very close to a number of the Central Anatolian Obsidian sources which were extensively used in Late Neolithic Upper Mesopotamia (Healey 2007). Presumably this is evidence of trade relations and one of the glyphs was found with a cache of 21 obsidian tools (Biçakçi, Godon and Çakan 2011, 100) suggesting a possible association between glyphs and the obsidian trade, which is discussed further in Chapter 5. More generally, however, central and western Anatolian sites do not have the general connectedness shown by Late Neolithic sites in Upper Mesopotamia and, at least archaeologically, are treated as separate regions. The exact boundary is unclear, however, with sites like Mersin-Yumuktepe being compared to both part of the Mesopotamian (Restelli Balossi 2017) and the Anatolian sites (Gülçur 2012).

In the south east in southern Iraq it is more straightforward. There are no clearly stratified Late Neolithic period glyphs in the south, though there are a few Chalcolithic and Late Ubaid (*c.* 4500–4000 BC) glyphs from sites like Ur.

In the south west glyphs are known from a number of sites, including Byblos (Dunand 1973) and Ha-Gosherim (Getzov 2011); however, the exact relationship of the southern Levant with the north and with wider Upper Mesopotamia at that time is in need of clarification. Ha-Gosherim is at the northern end of the 'Wadi Rabah' culture, a period loosely contemporary with the Halaf (Gibbs and Banning 2013, 356). This is a distinct society, yet it clearly had close contact of some nature with the north. At the present level of understanding it is not possible to clarify this further. Byblos is more of a problem as it is the only site where stone glyphs exist apparently in parallel to clay stamps of the type commonly found in Anatolia and the Balkans. This association in itself is interesting, but there are problems dating objects from Byblos. Levels were based on absolute elevation, and every 20cm was declared a new layer (Garfinkel 2004, 175). No consideration was taken of stratigraphy such as pits or other features (Garfinkel 2004, 175) and it is impossible to know whether an object came from the level it was assigned to or from one higher up. For example, the Énéolithique Ancien level was only 40cm thick, but covered 900 years and apparently contained 1,675 jar burials. As such, while the stone and clay glyphs were published as being contemporary, in the absence of other chronological or stratigraphic evidence I have excluded them all from this study.

There are no clear boundaries to the Late Neolithic of Upper Mesopotamia. This is in part because, as discussed above, the Late Neolithic is not a uniform entity and the broad chronological and geographical region sketched out above was not inhabited by a monolithic culture. Instead it likely contained a wide range of different societies which shared enough aspects of material culture to suggest they were connected in some way.

Chapter 3
Studies of Late Neolithic Glyphs

This chapter reviews how Late Neolithic glyphs have been interpreted to date. The term 'seal' is used when referring to source materials, and 'glyphs' when they are part of the current discussion.

The Mesopotamian Neolithic glyphs began to be identified in the early years of the 20th century but the first publication to deal exclusively with Late Neolithic glyphs appeared in 1933 by Herzfeld. This was a synthesis of stamp and cylinder seals which looked at how seals could have developed from garment buttons (Herzfeld 1933, 49, 53), an argument also presented by Schmidt (1937). Today the article's main contribution lies in the description it provides of 5th millennium BC Iranian stamp seals, in particular those purchased by Herzfeld at Tepe Giyan, some of which are included in this book.

Fundamental to the study of glyphs (and the Halaf) was the publication in 1935 by Mallowan and Rose of their excavation of Tell Arpachiyah. This is the de facto type site for the Halaf culture and it was here that the first large collection of Late Neolithic glyphs and impressed objects was excavated. Mallowan and Rose interpreted the objects as amulets which were subsequently used as seals (1935, 91); they use the term amulet uncritically, by which I mean they do not define what they mean by amulet nor do they qualify whether they mean it specifically as an apotropaic object or are using it as a generic term for small objects that are likely to have ritual or magical qualities. The publication also includes the earliest explicit interpretation of glyphs as control mechanisms, stating that the seals 'must have been used as identification signs indicating individual ownership' and 'could be used as indications of private ownership and identification' (Mallowan and Rose 1935, 91). This became the standard interpretation of stamp seals. The publication is also used to support the idea that some seals were used as amulets (i.e. Tomas 2011, 87) although Mallowan and Rose argued the objects were amulets used as seals, not vice versa.

Following the work of Herzfeld and Mallowan and Rose there was little discussion of early glyphs until the 1960s when a number of studies were published, for example Amiet (1961, revised 1980), Goff (1963), Porada (1965), Buchanan (1967) and Homés-Fredericq (1970, written in 1962).

Porada's study is a brief discussion of the changing nature of stamp seals from the Pre-Pottery Neolithic to the Babylonian period. There is limited discussion of the function of seals, with the study evaluating the shifts in the classification of the glyptic. Porada (1965, 141) suggests Halaf period seals developed from pre-Halaf seals. Buchanan's study covers seals from the Amuq A-B until the 3rd millennium BC. The discussion of Late Neolithic seals covers slightly less than half a page (Buchanan 1967, 266) and excludes pendants, focusing on the stamp seals from Arpachiyah. There is a discussion of the classificatory changes of the Tepe Gawra seals over time and their stylistical relations with impressed sealings from Arpachiyah (Buchanan 1967, 268–71). The work is primarily concerned with the stylistic characteristics of representational seals found from the 4th millennium BC onwards. Neither Porada nor Buchanan discusses the function of a seal or the purpose of sealing and they are primarily focused on late 4th millennium BC stamp seals where there is evidence for

administrative sealing systems. The presence of such sealing systems from the middle of the 4th millennium BC onwards is relatively clear and Buchanan and Porada have uncritically extended this interpretation to earlier periods with no consideration for the differences in context across the corpus.

Amiet's (1980b) study is a stylistic analysis of the iconography and symbolism apparent on stamp and cylinder seals. It concentrates on the period from the middle 4th millennium BC onwards, but does briefly consider the origins of seals in the Late Neolithic. He states that the development of seals demonstrates an advanced level of 'civilisation', and relates this to the growth of painted pottery, architecture and early metal working (Amiet 1980b, 15). Like Buchanan and Porada, Amiet does not discuss the purpose of seals and they are again assumed to be administrative. While he recognises that many of the earliest seals are pendants (as the design is visible when suspended vertically), Amiet believes it is difficult to imagine the pendants being widely used as seals (Amiet 1980b, 15). Amiet's most significant point, based on findings at Tepe Gawra, is that there is a clear shift in the iconography of the designs of seals from the middle of the 5th millennium BC onwards, moving from the abstract geometric to the representational (Amiet 1980b, 16–17, 69). This transition is important as it is only after this point that clear evidence of administrative sealing practices are found. However Amiet does not expand on the implications of this observation.

Goff's (1963) work on symbolism, related to her opinions on religion, looked at different types of imagery from the Hassuna period (Pottery Neolithic) until the end of the Uruk. As a synthesis it compares all the known seals at that time and is highly comprehensive in its discussion of the range and potential interpretations of the glyptic styles. Unfortunately, it treats the administrative definition of seals as a given (e.g. Goff 1963, 20) and repeats Mallowan and Rose's claim that early seals were amulets used as seals (Goff 1963, 51). Goff treats amulets uncritically, which is unfortunate as in her work on the use of 2nd and 1st millennium BC cylinder seals as amulets and for magical purposes, Goff's approach (1956) was considerably more nuanced, and the application of some of the possible interpretations expounded there would have greatly enhanced the discussion of early symbolism both for seals and wider Late Neolithic material culture.

Homés-Fredericq wrote her doctoral thesis in 1962, although it was not published until 1970. It looks at the change in the form and styles of seal glyptic from the Pottery Neolithic until the late Uruk, outlining the main sites, forms, materials and design groups for each period. The work focused on seals from selected sites, centring on Arpachiyah and Tepe Gawra for the Halaf and Ubaid periods, but her thesis is ultimately descriptive without much interpretation or analysis. The narrative of administration is maintained, but she does suggest that geometric seal designs might reference concepts from daily life, with cross-hatching potentially representing nets for fishing or hunting (Homés-Fredericq 1970, 87–8), representing pasture (1970, 102). Her work is useful for the way in which she classifies the designs on the seals but is otherwise now largely out of date. Her fundamental conclusions maintain that the seal was a Halaf invention and that pendant seals pre-date stamp seals. The suggestion that seals were a Halaf invention was inaccurate even at the time of publication, as the discoveries in the Amuq and at Tell Hassuna demonstrated. Her most interesting claim is that many of the stamp seals, particularly the Jemdet-Nasr animal-shaped ones, were amuletic (Homés-Fredericq 1970, 10). While this again uncritically assumes that 'amulet' is a known category, she does argue quite strongly that there is no dichotomy between a 'practical' seal and 'magical' amulet.

In 1976, Caldwell published an article looking at long-distance trade between Iraq and Iran, focusing on potential relations between regions by analysing the form of stamp seals from the middle 4th millennium BC onwards. Caldwell suggested that Halaf and earlier seals might not have been used for sealing practices because he considers there to be no evidence of impressions (Caldwell 1976, 230). He was apparently unaware of evidence to the contrary at Arpachiyah. Caldwell also created a classification for 4th millennium BC seals. Buchanan died in 1976 and as a result his work on the Yale Babylonian collection and the Ashmolean's collection were posthumously published in 1981 and 1984. Both volumes consist of seal descriptions, written and arranged in classificatory groupings by Buchanan, but with the descriptions of the groups and any other syntheses written by the editors of the volume.

The Yale Babylonian collection publication contains very little analysis, interpretation or discussion of each individual period. The introduction was written by W. Hallo who considered seals to be primarily aesthetic objects and secondarily administrative (Hallo 1981, ix). Of the 1,300 seals described, fewer than 100 are likely to be of early date, and the text emphasises the later contexts. A volume concerning the Ashmolean's collection was edited by P.R.S. Moorey, who also wrote the accompanying analysis and discussion. Moorey's introduction offers more discussion of the seals than the Yale Babylonian collection and has an overview of previous literature (Moorey 1984, viii–ix), but he does not provide any critical analysis. Most importantly, the publication contains a classification designed by Buchanan (1984, xi–xvii) which forms the basis of a number of later classifications.

Many publications during this time mentioned stamp seals (see Braidwood and Braidwood 1960; Fukai and Matsutani 1981; Tobler 1950) but until von Wickede's (1990) thesis was published there was nothing, subsequent to Mallowan and Rose (1935), primarily concerned with the interpretation of Late Neolithic seals. Late Neolithic seals were included in studies primarily as illustrations of the apparent origins of later representational seal design, in which the authors were interested.

Von Wickede's doctoral thesis, *Prähistorische Stempelsiegel in Vorderasien* (1990), has since been the key text in the study of stamp seals (e.g. Nunn 1999; Tomas 2011). It covers seals from the Pre-Pottery Neolithic until the Late Uruk. With the exception of Homés-Fredericq, it is the only work comprehensively studying Late Neolithic seals from more than one site, covering in great detail all seals and impressions from stratified deposits known at the time. The work is primarily typological and looks at the development

of forms and sealing practices over the periods while being largely unconcerned with the role of objects within their contexts. Seals are treated as primarily administrative artefacts, with only a few sentences suggesting other uses of seals. Von Wickede does mention how historic period seals in the Middle East were versatile and used as amulets, votive offerings and signatures (von Wickede 1990, 29), but suggests this was not the case with Late Neolithic seals stating '[t]he use of prehistoric *Stempelglyptik* [Stamp-glyptic] was mainly directed to the sealing of containers, showing property/ownership and to protect the goods against unauthorised use' (von Wickede 1990, 29, my translation). His goal was to develop a geometric classification of seal design in order to organise the corpus. While this allowed him to construct a single narrative of stamp seal development from the late Pre-Pottery Neolithic until the Early Bronze Age, he provided little discussion in support of this opinion.

Aside from the lack of analysis, the text remains useful and von Wickede's breadth of data and classification is the most complete publication available on seals of this period. He posited that it is impossible to have a temporal or regional classification as the glyptic style across Upper Mesopotamia throughout late prehistory remains too static (1990, 124–5). He goes on to suggest that it is only towards the end of the 5th millennium BC that there is a change in the seal glyptic (1990: 126) from primarily geometric seal designs to primarily representative seal designs. This is the same transition as recognised by Amiet. It may represent a key change in the purpose of seals, as alongside the transition in design, the administrative use of seals becomes clear whereas evidence of administration in earlier periods is much more elusive. Furthermore after von Wickede's work, hundreds more seals and impressions have been excavated. These have greatly increased the size of the corpus of Late Neolithic seals and impressions from the 130 discussed by von Wickede (1990, 93) to the 651 analysed in this book.

The discussion above highlights two points. Firstly, most of the early literature focused on later glyphs. The majority of catalogues covered little or nothing from before the 4th millennium BC. Secondly, all syntheses within the literature have been concerned with the evolution of typologies. Since these later periods have developed administrative sealing systems this is understandable. However, the fact that glyphs are used for administrative purposes after 4000 BC is no reason to assume the same 2,000 years earlier.

Since 1990 most publications have worked to fit the new glyphs and impressed objects into the narrative first presented by Mallowan and Rose (1935). An exception to this is the publication of a conference paper given in 1991 by Charvát (1994) looking at the impressions from Arpachiyah and Nineveh. Charvát interpreted the difference in sealing practice between the Halaf and Ubaid in terms of Sahlins' interpretation of Melanesia (Charvát 1994, 13):

> The Arpachiyah and Nineveh 2-3 sealings thus visualise, I believe, a transition from personalised gift-giving (conceived of as conveying parts of the donors' personalities to members of exclusive social centres in the Halaf period) towards a wider and perhaps less individual circulation of goods bearing clearer "signatures" among the more or less equivalent component segments of Ubaid-culture society. (Charvát 1994, 14)

This is an interesting argument, and one of the few interpretations that makes any attempt to draw on anthropology. Charvát suggests that as glyphs have designs that are hard to distinguish and, he assumes, were worn close to the body for extended periods of time they became imbued with the users' personality, with the glyphs being capable of extending their personhood to other objects (Charvát 1994, 13). This point is important, as it recognises that even objects with generic designs can be inalienable and this efficacy transferred into impressed objects (Charvát 1994, 13). Such capability was enacted in an elite reciprocal exchange network. Similar points were made in later publication by Charvát (1992, 280–1; 2002, 72–3, 86–7, new edition of a 1993 publication) but without further explanation. Charvát's work is interesting, but problematic. He summarises the theoretical basis of his argument as:

> The fact that most typical Halaf-period amulet seals were obviously worn in necklaces points to the conclusion that they might have conferred the impressions of their bearers' personalities onto the conveyed goods and that they may thus fall within the Maussian category of gifts conveying parts of the donors' personalities to the recipients. (Charvát 1992, 280)

There is no evidence that Late Neolithic glyphs were worn as necklaces and Charvát does not attempt to explain how this gift-giving could have functioned in the Late Neolithic. His analogy is direct and takes no account of society in the Late Neolithic; the argument that glyphs could extend to the person is an interesting and plausible one, but requires more evidence than the assumption they were worn. A further limitation of Charvát's argument is that he assumes, again due to his use of a direct analogy, the existence of an elite exchange network in the Halaf. The Late Neolithic is notable for its absence of evidence for inequality (for a further discussion see Frangipane 2007b).

Extending Charvát's idea is Wengrow's 2008 paper on commodity branding. Wengrow takes Charvát's point that glyphs could have been amulets used to extend the self and changes it to emphasise how sealing practices are transformative and change the 'temporality of exchange' (Wengrow 2008, 15). He draws in particular on the practices at Tell Sabi Abyad to argue that sealing practices allowed Neolithic communities to manipulate the timing of exchange and consumption which let them control the 'strategic dispensation of resources' (2008, 15). This is an important point as sealing an object places it in a liminal state and removes the sealed item from day to day circulation.

The most important example of new studies on Late Neolithic sealing practices is the site of Tell Sabi Abyad, where a group of 301 sealings on clay were discovered in 'the burnt village' (level VI). They were initially interpreted by Akkermans and Duistermaat (1996) as being concerned with the control and protection of goods. Tell Sabi Abyad has reignited interest in sealing practices in the Late Neolithic but has been uncritically used to extend administrative arguments into the 7th millennium BC (e.g. Collon 1997b, 21; Fiandra 2000). This is unfortunate as the evidence from Tell Sabi Abyad is complex, and does not easily fit into existing narratives of sealing practices.

Duistermaat's 2010 re-evaluation of the sealings from Tell Sabi Abyad advanced the argument that suggests there is no

evidence of institutional administration or elite control in the Pottery Neolithic. Instead Duistermaat interpreted the sealing system as representing the need for a mobile population to administer and secure their private possessions in a communal setting (2010, 181–2). The paper does have limitations as its evidence for a widespread sealing system in Syria beyond Tell Sabi Abyad is based on only six sealings from Tell el-Kerkh, which stylistically do not match the Tell Sabi Abyad sealings (Duistermaat 2010, 175). Duistermaat recognises this (2010, 173–6), but argues that the issue 'falls outside the scope of this paper' (Duistermaat 2010, 174).

Fiandra (2000) proposed that the 4th millennium BC sealing system at Arslantepe must have had earlier precedents as it is well developed. She traced these back to Tell Sabi Abyad and uses the site as evidence of a less developed administrative system. Fiandra also interpreted the earliest development of glyphs suggesting that there was a transition in purpose from originally being used to indicate a group or individual identity into having an administrative role (2000, 441). She argues that because of the administration at Tell Sabi Abyad and glyphs at Bouqras this change happened before the 7th millennium BC (2000, 438). Similarities are also drawn between the glyptic of Tell Sabi Abyad and Bouqras and that of the Late Chalcolithic (Fiandra 2000, 438). While parallels in designs are noticeable in that they both depict animals, the article ignores intervening periods, and all other Pottery Neolithic sites where glyphs are almost exclusively geometric. While the acknowledgement that glyphs might have changed in purpose is valuable, the glossing over of millennia of variation in glyphs weakens the argument.

Nunn (1999) published a catalogue of the Aleppo museum's collection of stamp seals including a number of early glyphs which, with the exception of some from Tell Brak, are published typologically. The classification is based on Buchanan (1984) and von Wickede (1990). The glyphs from Tell Brak were analysed in detail, comparing Mallowan's (1947) site report with the glyphs in Aleppo, and tying in that of Matthews (1997) to achieve tighter chronological positioning and contexts to a number of the Tell Brak glyphs. The work is primarily typological but interestingly Nunn believes that 'often their [seals] main purpose seems to have been protective' (1999, 22).

One of the strongest counter-arguments on Late Neolithic glyphs as administrative objects comes in Susan Pollock's discussion of glyphs from Fıstıklı Höyük where she suggests that '[t]here are several indications that the seals at Fıstıklı Höyük did not have great value as items for controlling access to economically valuable goods' (Bernbeck *et al.* 2003, 56). To justify this three points are raised: firstly there are more glyphs than impressed sealings; secondly the designs are 'so similar as to be virtually indistinguishable' (Bernbeck *et al.* 2003, 56); and thirdly, that one glyph was broken and re-drilled through the centre obscuring the motif (Bernbeck *et al.* 2003, 56). Pollock's alternative interpretation suggests instead that 'the shape of the seal itself may have been more important than the motif carved on the stamping surface, suggesting a symbolic (apotropaic?) or at least decorative value more than an economic one' (Bernbeck *et al.* 2003, 57). This is an important commentary as it analyses Late Neolithic glyphs in their own context instead of attempting to fit them into a narrative of administration. When considered on their own merits, as Pollock illustrates, there are strong reasons to question the role of these seals in administration and control, as in the traditional definition.

Carter (2010) has published the glyphs excavated between 1997 and 2000 at the site of Domuztepe in south-east Turkey. She concluded that glyphs represent a form of accountability, but also that they are common and not linked to any particular elite group. Carter also discussed how the geometric decoration of Halaf glyphs, while not individual, may tie into an unidentified social or religious meaning (2010, 164–5). Carter's recognition that the design of glyphs are not necessarily individual or elite remains an important point that counters the original Mallowan and Rose argument that glyphs were used for individual identification.

Tomas discusses the design and possible function of Halaf glyphs, and argues that they may have been used 'to keep track of certain records or numbers, or to store updateable information' (Tomas 2011, 87). This is an intriguing concept and worthy of further investigation, especially the idea that the faces of glyphs could have been adapted over their use-life with elements being added to the face to represent information (2011, 90). Though Tomas accepts that many glyphs might have been used to create impressions, he does question whether this was the implicit purpose of a glyph, and suggests that different types may have had divergent functions (including record keeping and stamping (2011, 88–9).

Similar points are raised by Costello (2011), who also argues that glyphs are mnemonic devices and were used to store 'information'. In a paper discussing glyphs and related imagery from 9000 BC until 4000 BC, she argued the symbolism on glyphs has religious significance and may be associated with a 'struggle for increased human control over natural resources' (Costello 2011, 257). The figurative designs on glyphs and other inscribed objects, particularly the palettes from Jerf al-Ahmar, provide images of a 'three-tiered cosmos represented symbolically in the recurring motifs of bird-quadruped-snake' (Costello 2011, 257). She suggested the geometric designs may be symbols visible in hallucinations or have some other cosmological/religious significance (Costello 2011, 258–9).

Costello's central argument for glyphs having religious significance is based on the constant presence of certain figural elements, particularly the raptor-quadruped-snake, from the 9th millennium BC until the 4th millennium BC. This is untrue, as after her earliest evidence, the palettes from Jerf el Ahmar and Mureybet (*c.* 10000–8700 BC), there is a 2,000-year gap in appropriate figural representations until the burnt village at Tell Sabi Abyad (*c.* 6400–6200 BC) and then almost another 2,000 years until the sealings from Değirmentepe (*c.* 5400–5000 BC). The sealings from Tell Sabi Abyad only figurally depict quadrupeds, although Costello suggests that of the designs in **Figure 3** 'the zigzag resembles the form of a raptor, and the 'S'-shaped motif resembles a snake' (Costello 2011, 252). Essentially Costello

Figure 3 Zigzag and s-shaped designs from Tell Sabi Abyad (after Duistermaat 1996, fig. 5.3)

has two examples of figural designs 4,000 years apart with little comparative figural material in the middle. However the over-arching point that the designs on glyphs represented a shared symbolic language is important and was not something that been expressed in such explicit terms by any previous scholar. She also suggested, like Tomas, that it is unlikely glyphs were used for one purpose (Costello 2011, 248).

These latter four studies raise crucial interpretative points; both Pollock and Carter observe that the designs on Late Neolithic glyphs are not unique. Costello's point that the designs could represent a shared symbolic language, along with Tomas's and Costello's contention that not all glyphs needed to have had the same purpose or function are equally important. They suggested that Late Neolithic glyphs should be considered in context to identify the actual practices involved. Separately Charvát emphasises the potential for glyphs to have been inalienable and capable of projecting efficacy, while Wengrow has discussed how sealing is a transformative practice. While none of these authors' work has been widely adopted, their suggestions are important, not least through their recognition that exchange is not purely an economic act but is tied into a wide range of social practices.

Finally two recent papers by Duistermaat (2012; 2013) offer new interpretations of Late Neolithic sealing practices. The 2013 paper is in a similar tradition to her earlier work but emphasised that there is no evidence of sealing practices before about 6300 cal. BC, and by extension presumably the earliest glyphs were not used to create impressions in clay or other preservable materials (Duistermaat 2013, 315–17). This is an important point, reinforced by the observation that even when sealing practices are found they did not serve bureaucratic purposes. Building on Akkermans and Duistermaat (1996), Duistermaat argues that sealing practices were possibly related to the emergence of ideas of private property and the difficulty of monitoring or securing this property in a society where people were living a mobile lifestyle (Duistermaat 2013, 321). While no evidence is provided for the social structures or sense of individuality necessary for the concept of private property this article is important in that it emphasises that the sealing practices at Tell Sabi Abyad are a local response to social changes, not the birth place of a 4,000 year long grand narrative of administrative and bureaucratic sealing practice. The 2012 article draws many of the same points, arguing that the sealing practices at Tell Sabi Abyad are not administrative or bureaucratic and emphasised the non-control related uses of glyphs. Duistermaat suggested that there may well have been an association between glyphs and magical or ritual uses and references a variety of later Mesopotamian examples of the significance of glyphs and sealing practices. The recognition that the primary function of early glyphs might have been 'decorative, amuletic, ritual, or magical' (Duistermaat 2012, 13) is significant.

Summary

Generally, literature discussing stamp seals after the Late Neolithic has been extensive in the past 20 years, with wide-ranging work including the reassessments of the Tepe Gawra sealings (e.g. Rothman 1994; Rothman 2002b), the publication of thousands of sealings from Arslantepe (Frangipane 2007a), a study on the early glyptic of Tell Brak (Matthews 1997) and the publication of the sealings from Değirmentepe (Esin 1994). All of this work has been firmly placed in contexts where there is good evidence of an administrative system.

The interpretation of early glyphs as composing a common heritage for later sealing practices is therefore widespread throughout the relevant literature, and in Middle Eastern archaeology generally. These ideas are typical of books and articles concerned with later glyphs. Collon (1997b), for example, in her overview of ancient Middle Eastern seals, uses Arpachiyah and Tell Sabi Abyad in the addendum to demonstrate the earliest evidence of administration, without discussion of what social processes were functioning at the time. Even in literature which only briefly discusses sealing practices an administrative narrative is present. For example Akkermans' and Schwartz's (2003) overview of Syrian archaeology states that from the second half of the 7th millennium BC people started using glyphs 'to define individual property and secure the containers against unauthorised opening, a useful tool in the organisation of storage and in the control of exchange networks' (Akkermans and Schwartz 2003, 139–40). While there is a brief discussion as to whether early sealing represents administrative control, the narrative perpetuates the dominant view that glyphs solely reflect administrative control.

Tomas's (2011) and Costello's (2011) contention that not all glyphs may have had the same purpose or function, along with Duistermaat's (2012) argument that meaning is not fixed, are key to moving the debate forwards as previous classifications and interpretations of glyphs have essentially suggested a single universal meaning. The definition of glyphs in most of the publications above has been treated as self-evident, and by extension has never been discussed. A glyph has been interpreted in the same way as if it dates to the Pre-Pottery Neolithic or the Iron Age regardless of the differences in society, iconography and context. This functional interpretation has its origins in the study of Late Chalcolithic and later stamp seals, applying the argument retrospectively without evaluation of how appropriate the interpretation is for the radically different societies of the Late Neolithic. Furthermore, while it is widely recognised that later glyphs had important ritual and magical roles (e.g.

Collon 1997a), this aspect has been largely ignored for Late Neolithic glyphs, rendering the definition of glyphs in the Late Neolithic more deterministic than in the periods from which their definition derives.

Existing studies, therefore, have rarely considered early glyphs in their own right (Duistermaat 2013, 317–19). Fiandra (2000) and Charvát (1994) both briefly argue for a transition from impressions marking identity to denoting administration/trade, but neither look at the early glyphs in their own context and, as with most studies, simply discuss early glyphs as part of a dominant narrative of developing administration. The current study takes a different approach beginning with an analysis of Late Neolithic glyphs in their own context before their interpretation.

Chapter 4
Defining Late Neolithic Glyphs

Introduction

This chapter will look at glyphs from across Upper Mesopotamia and the Late Neolithic, focusing specifically on the 651 objects analysed for this publication. The British Museum's collection of glyphs from this period can be found in the catalogue in this volume. These are mostly stamp and pendant glyphs, but also include plaques and various types of impressed objects. Full details of all objects studied are available online at http://www.shdenham.co.uk/.

Figure 2 shows the 43 sites with glyphs that were included in this study. The number of glyphs from each site and the available information on them varies greatly. Much of the sample derives from Tell el-Kerkh (86 objects, 13.2% of the total), Domuztepe (116 objects, 17.8% of the total) and Tell Arpachiyah (134 objects, 20.6% of the total) which collectively account for 51.6% of all provenanced glyphs and impressions from the Late Neolithic. A number of sites only have a few glyphs, with a quarter of sites (11) having only one glyph. The evidence is therefore not evenly distributed. The number and type of objects examined or analysed from each site is summarised in **Table 3**.

This chapter is arranged chronologically looking at the evidence for glyphs from their earliest iteration in the late 8th millennium BC until their replacement by naturalistic glyphs in the mid-5th millennium BC. It begins with a brief discussion of terminology and an overview of the glyptic style as a whole.

Terminology

The terminology surrounding impressed objects is often confused with indiscriminate usage of the term 'sealing' to refer to pieces of mud or clay with or without impressions and with or without having been attached to anything. For example, **Figure 4** shows a sealing from Arpachiyah which has been impressed with a glyph but not sealed to anything. In contrast, **Figure 5** shows a sealing from Domuztepe which has been attached to something but not impressed with a glyph.

Indiscriminate use of the term 'sealing' has led to misconceptions about the amount of sealings, presumed to be impressed, to have been found at sites. For example the excavators of Tell Sabi Abyad found a cache of 300 sealings (Duistermaat 1996), which have been used to demonstrate how sealing must have been widespread in the Late Neolithic (e.g. Campbell 2000). However, around one third of that group (111, 37%) were unimpressed, some may be fragmentary examples, but those pictured in the Tell Sabi Abyad report (Akkermans 1996, fig. 5.19–21) are complete. The terminology used has made it easy for this inaccuracy to occur. Frangipane (2007a) attempted to deal with this by arguing that the term *cretulae* should be used to refer to all pieces of clay/mud that have been impressed with a glyph. While it is perhaps appropriate for the Late Chalcolithic, it is not possible to sub-divide *cretulae* usefully for the Late Neolithic because it inherently assumes that the only purpose of sealing is administrative (Fiandra and Frangipane 2007, 16). To avoid confusion I will use the following terms throughout.

A *sealing* must have been sealed or attached to something (**Fig. 5**) and it is then *impressed* or *unimpressed*. If a piece of clay

Modern country	Modern province	Site	No. of pendant glyph	No. of stamp glyph	No. of plaque glyph	Impressions	Impressed objects or sealings	Total
Iraq	Arbil	Gird Banahilk	2	1	-	-	-	**3**
	Kirkuk	Tell Matarrah	-	1	-	-	-	**1**
	Ninawa	Arpachiyah	54	32	3	45	42	**131**
		Gogjeli	1	-	-	-	-	**1**
		Nimrud	3	-	-	-	-	**3**
		Tell Chenchi	2	-	-	-	-	**2**
		Tell Hassuna	-	2	-	-	-	**2**
		Tepe Gawra	20	17	-	14	14	**51**
	Sinjar	Tell Maghzaliyah	-	1	-	-	-	**1**
		Yarim Tepe I	-	7	-	-	-	**7**
		Yarim Tepe II	10	7	1	-	-	**18**
		Yarim Tepe III	2	3	-	-	-	**5**
Syria	Al Hasakah	Chagar Bazar	8	13	1	-	-	**22**
		Germayir	1	-	-	-	-	**1**
		Khabur (Region)	3	7	-	-	-	**10**
		Tell Barri	-	1		-	-	**1**
		Tell Brak	4	4	-	-	-	**8**
		Tell Halaf	4	6	3	2	1	**14**
		Tell Khanzir	-	1	-	-	-	**1**
		Umm Qseir	7	-	-	-	-	**7**
	Al Raqqah	Tell Sabi Abyad	1	16	-	-	-	**17**
		Tell Tawila	1	2	-	-	-	**3**
	Aleppo	Tell Ahmar	-	1	-	-	-	**1**
	Damascus	Tell Ramad	-	3	1	-	-	**4**
	Idlib	Qminas	-	2	-	-	-	**2**
		Tell el-Kerkh	1	74	5	6	6	**86**
	Latakia	Ras Shamra	-	22	1	-	-	**23**
Turkey	Hatay (Amuq)	Atchana	-	5	-	-	-	**5**
		Boztepe	-	1	-	-	-	**1**
		Chatal Huyuk	-	2	-	-	-	**2**
		Dhahab	-	1	-	-	-	**1**
		Judaidah	-	16	2	-	-	**18**
		Kurdu	4	16	1	1	1	**22**
		Tell Hasanusagi	-	2	-	-	-	**2**
		Wadi Hamman	-	2	-	-	-	**2**
	Diyarbakır	Girikihaciyan	3	2	1	-	-	**6**
	Gaziantep	Sakce Gözü	-	-	1	-	-	**1**
	Kahramanmaraş	Domuztepe	18	85	1	12	16	**120**
	Mersin	Yumuktepe	-	9	1	-	-	**10**
	Şanlıurfa	Çavi Tarlası	2	6	-	-	-	**8**
		Fıstıklı Höyük	2	13	-	2	2	**17**
		Kazane Höyük	1	7	-	2	2	**10**
		Kurban Höyük	-	1	-	-	-	**1**
	Total		**154**	**391**	**22**	**84 (not in total)**	**84**	**651**

Table 3 Number of objects from each site analysed as part of this study

Figure 4 Impressed disk from Arpachiyah (BM, 1934,0210.385, Cat. 40)

Figure 5 Unimpressed sealing from Domuztepe (dt-4751). Courtesy of the Domuztepe project

Figure 6 Impressed label from Arpachiyah (BM, 1934,0210.384, Cat. 39)

has been impressed with a glyph, but not sealed to something then it is an *impressed object*, normally a *disk* (**Fig. 4**) or a *label* (**Fig. 6**). This distinguishes between objects that were most probably used for closure and those where the function is unclear.

Glyphs have three morphological attributes that describe its physical form:

1. **Type** records the sort of object relative to its method of suspension. It is the superordinate category of 'face' and 'profile';
2. **Face** is the shape of the part of the object with an incised design;
3. **Profile** is the shape of the side of an object relative to the side with an incised design (the face).

Glyphs and impressions have two design attributes, design group and design. 'Design group' is the superordinate category of design. 'Design' is a basic level attribute where the members of the group share the most common properties with other members. It does not imply that the designs are identical, just that their design best reflects that group. This is an example of prototypicality in classification which emphasises defining commonality instead of difference (see Rosch *et al.* 1976 and Lakoff 1987 for details of prototypical classification).

The following section will outline the Late Neolithic glyptic as a whole before looking at how it changes over time.

Glyph morphology

There are four types of glyphs: pendant (e.g. Cat. 92), stamp (e.g. Cat. 85), plaque (e.g. Cat. 62) and impression (e.g. Cat. 36). Pendant and stamp glyphs are by far the most common and the distinction between them is defined by the visibility of the design when suspended vertically; visible for pendant glyphs, obscured for stamp glyphs. This distinction reflects how glyphs have been classified previously (Buchanan 1984, xi–xvii; von Wickede 1990, 10–21) and, as demonstrated later, is an archaeologically visible distinction, yet there is no evidence that pendant glyphs and stamp glyphs were worn differently. There are few indicators of how glyphs were worn, although at least two stamp glyphs were found near the neck in burials, one from Tell el-Kerkh (EK-082; Tsuneki and Hydar 2011, 8) and one from Boztepe (BZ1059; Parker and Creekmore 2002, 26 & 30). As both of these are stamp glyphs, if worn at the neck the design would not have been immediately visible. This suggests that there were multiple practices relating to the display of glyphs and that different wearers of glyphs chose to display them, or not, in a variety of ways. The potential significance of this will be discussed in Chapter 5.

Plaque glyphs are unpierced, while impressions are the negative impression left by a glyph in an impressed object. **Figures 7–8** show the different face and profile types (based on prototypical examples) while **Tables 4–10** summarise the number and types of face and profile shapes. Unknown faces or profiles were recorded where some information of a glyph has been published (i.e. an image of the front) but not enough to identify both face and profile. Impressions were often published with no profile data and were only assigned a face shape if the impression was complete and it was possible to see the original shape of the glyph.

Stamp glyphs have 13 face types with 87.4% of stamp glyphs being circular, oval, square or rectangular (**Table 4**). The nine other types are rare, accounting for only 12.6%. Stamp faces vary morphologically between quadrilaterals and circles/ovals with variation in the degree of elongation. Stamp glyphs have 16 types of profile (**Table 8**) of which 66.9% are either flat or ridged. Pendant glyphs also have 13 types of face with 73.5% being pear, triangular, oval or diamond (**Table 5**). These shapes are more varied than for stamp glyphs. Pendant glyphs have only six types of profile of which 80.2% have either a wedge or flat profile (**Table 9**).

The distinction between stamp and pendant glyphs seems to reflect emic categories. There is more variation in the

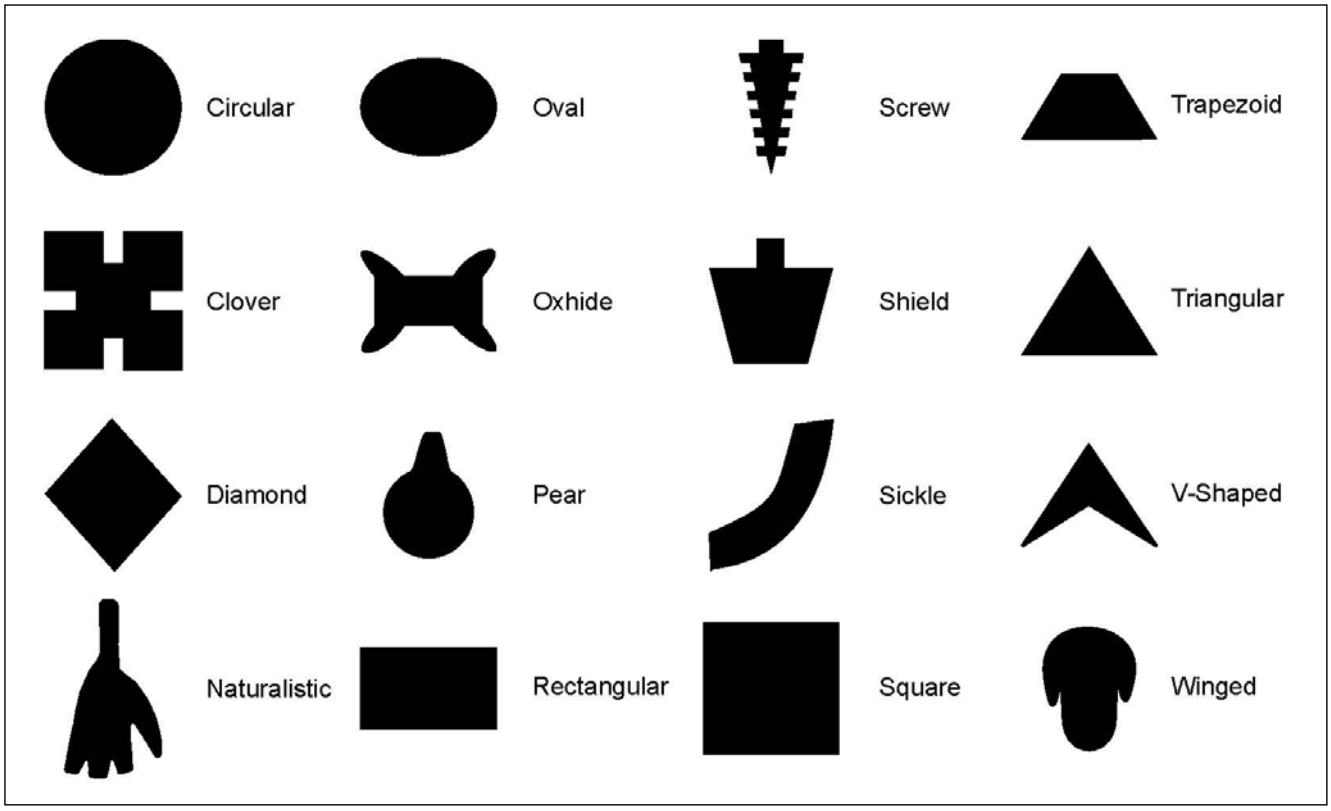


Figure 7 Classification of face shapes for stamp, pendant, impression face and plaque glyphs (drawn by the author)

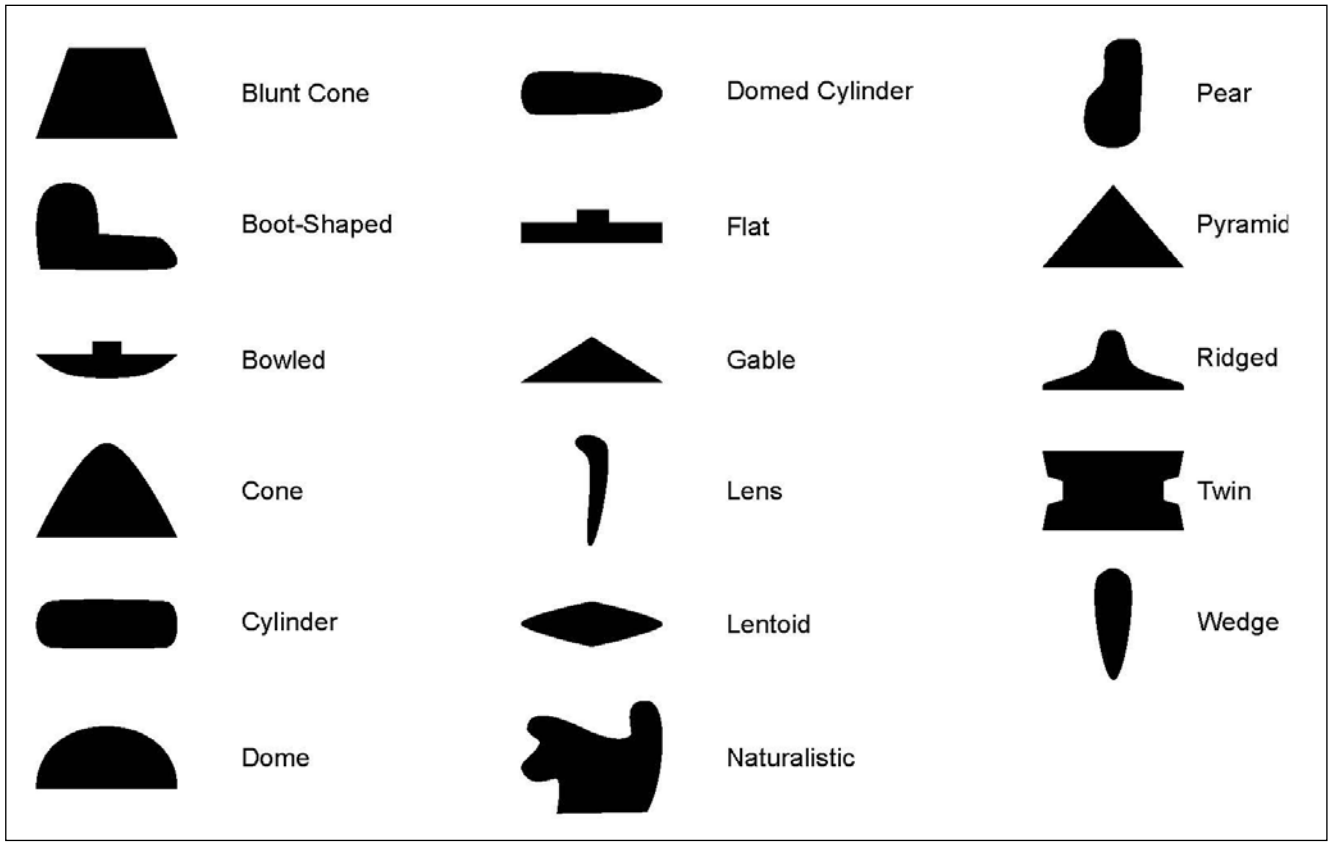


Figure 8 Classification of profile shapes for stamp, pendant, impression face and plaque glyphs (drawn by the author)

Stamps	No.	%
Circular	111	29.8%
Rectangular	86	23.1%
Oval	73	19.6%
Square	56	15.0%
Clover	15	4.0%
Triangular	10	2.7%
Diamond	6	1.6%
Trapezoid	5	1.3%
Irregular	5	1.3%
Naturalistic	2	0.5%
Winged	2	0.5%
Sickle	1	0.3%
Oxhide	1	0.3%
Total	**373**	**100%**

Table 4 Stamp glyph face types (excluding 18 with unknown face)

Pendant	No.	%
Pear	38	25.9%
Triangular	32	21.8%
Oval	27	18.4%
Diamond	11	7.5%
Shield	8	5.4%
Rectangular	7	4.8%
Sickle	5	3.4%
Circular	4	2.7%
V-shaped	4	2.7%
Naturalistic	4	2.7%
Irregular	3	2.0%
Winged	2	1.4%
Screw	2	1.4%
Total	**147**	**100%**

Table 5 Pendant glyph face types (excluding seven with unknown face)

Impressions	No.	%
Naturalistic	16	25.4%
Circular	15	23.8%
Oval	14	22.2%
Square	6	9.5%
Rectangular	6	9.5%
Triangular	3	4.8%
Pear	2	3.2%
Irregular	1	1.6%
Total	**63**	**100%**

Table 6 Impression face types (excluding 21 with unknown face)

Plaque	No.	%
Rectangular	9	40.9%
Oval	5	22.7%
Circular	4	18.2%
Trapezoid	2	9.1%
Sickle	1	4.5%
Irregular	1	4.5%
Total	**22**	**100%**

Table 7 Plaque glyph face types

Stamp	No.	%
Flat	194	56.4%
Ridged	36	10.5%
Dome	22	6.4%
Cone	18	5.2%
Blunt cone	17	4.9%
Bowled	9	2.6%
Boot-shaped	8	2.3%
Pyramid	7	2.0%
Domed cylinder	6	1.7%
Twin	6	1.7%
Triangle	5	1.5%
Lentoid	4	1.2%
Naturalistic	4	1.2%
Irregular	3	0.9%
Gable	3	0.9%
Cylinder	2	0.6%
Total	**344**	**100%**

Table 8 Stamp glyph profile type (excluding 47 with unknown profile)

Pendant	No.	%
Wedge	54	53.5%
Flat	27	26.7%
Lens	8	7.9%
Pear	6	5.9%
Irregular	3	3.0%
Naturalistic	3	3.0%
Total	**101**	**100%**

Table 9 Pendant glyph profile type (excluding 53 with unknown profile)

Plaque	No.	%
Flat	7	35.0%
Boot-shaped	2	10.0%
Dome	2	10.0%
Cylinder	2	10.0%
Blunt cone	2	10.0%
Wedge	1	5.0%
Twin	1	5.0%
Irregular	1	5.0%
Ridged	1	5.0%
Gable	1	5.0%
Total	**20**	**100%**

Table 10 Plaque glyph profile type (excluding two with unknown profile)

design of the face of pendant glyphs then in stamp glyphs based on the relative percentage and more variation in the profile of stamp glyphs then in pendant glyphs mirroring the aspect of the object that would have been visible if suspended vertically. This might have been because the owners of the glyph may have been 'personalising' the most visible parts of the object.

Excluding impressions where the original face shape could not be deciphered, impressions have a high frequency of naturalistic faces (25.4%), all of which are from Arpachiyah. Otherwise the shapes displayed on impressions are commonly stamp and pendant glyphs with circular, oval, square and rectangular faces accounting for slightly under two thirds of all impressions (65.1%). Only 22 plaques were studied, making it difficult to make definitive statements but all the profile and face shapes are similar to those of stamp and pendant glyphs.

Glyph dimensions

This section presents data on glyph length, width and height. Length was recorded as the longest dimension of the side of the object with the design, width the other dimension of the side of the object with the design while height was measured at 90 degrees to the side of the object with the design and normally included the means of suspension. Complete length data was available for 455 glyphs (108 pendant glyphs, 331 stamp glyphs and 16 plaque glyphs). Complete width data was available for 477 glyphs (128 pendant glyphs, 328 stamp glyphs and 21 plaque glyphs) and complete height data for 378 glyphs (97 pendant glyphs, 263 stamp glyphs and 18 plaque glyphs).

Late Neolithic glyphs are all fairly small objects. The average length is 21mm with a standard deviation of 9mm, average width is 16.8mm with a standard deviation of 7.3mm, and average height of 9.7mm with a standard deviation of 7.5mm. This means that 68% of all glyphs are between 12 to 30mm long, 10 to 24mm wide and 2 to 17mm high. Pendant glyphs are almost the same length as stamp glyphs but are slightly narrower and thinner (**Table 11**). This limited range of sizes, combined with the restricted range of shapes discussed in the previous section, suggests that during the Late Neolithic people attempted to make glyphs of approximately the same size.

Glyph designs

There are five design groups (**Table 12**), 93% of objects have a cross-hatching, centralising or divided design. The remainder do not fit regularly into any of the other groups or have a naturalistic design. In addition there are 26 objects with no design; these have been classified as blanks and are mentioned below but have not otherwise been included in any of the analysis.

	Stamp glyph (mm)		Pendant glyph (mm)	
	Mean	**St. dev**	**Mean**	**St. dev**
Length	20.6	9.3	21.3	6.6
Width	17.5	7.6	14.4	4.7
Height	10.3	6.2	6.0	1.9

Table 11 Mean and standard deviations (st. dev.) for stamp and pendant glyphs

	No.	**%**
Cross-hatching	276	45.2%
Centralising	198	32.4%
Divided	96	15.7%
Naturalistic	26	4.3%
Irregular	15	2.5%
Total	**611**	**100%**

Table 12 Design groups

The distinction between cross-hatching, centralising and divided design is illustrated in **Figure 9**. Cross-hatching has a predominantly hatched design without much internal structuring; a centralising design is aligned with the centre of the object; and a divided design is divided into two or more linear panels.

Cross-hatching design

Cross-hatching is the most common design, found on almost half of Late Neolithic glyphs. It is a fairly homogenous group based on designs with quadrilateral grids. There are four types of cross-hatching (see **Table 13** and **Fig. 10**). Quadrilateral cross-hatching (where the cross-hatching forms quadrilaterals) and triangular cross-hatching (where the cross-hatching forms triangles) account for 76.9%. The next most common group, irregular cross-hatching, covers cross-hatched glyphs without internal consistency. The specificity of these designs, and the small sample size, makes it impossible to know if we are seeing personalised examples, imperfect knowledge or some other phenomenon. The final group, framed cross-hatching, is rare but found in small numbers at nearly every major site. Its defining feature is a cross-hatched design framed or panelled with lines. They are particularly interesting as most Late Neolithic glyphs

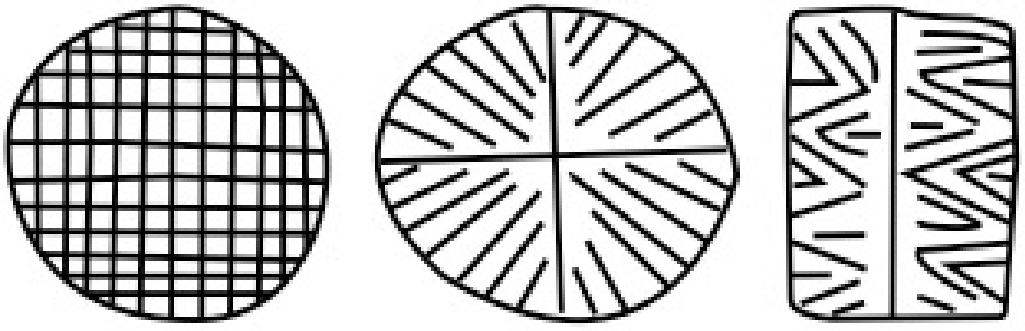


Figure 9 From left to right, cross-hatching (B14999), centralising (dt-492) and divided (dt-6588). Not to scale (drawn by the author)

Figure 10 Cross-hatching designs (not to scale), from left to right: quadrilateral (dt-6693), triangular (BM, 1934,0210.369, Cat. 26), irregular (BM, 1934,0210.352, Cat. 17) and framed (BM, 1934,0210.338, Cat. 4) cross-hatching (left image courtesy of the Domuztepe project)

	No.	%
Quadrilateral	153	55.4%
Triangular	59	21.4%
Irregular	37	13.4%
Framed	27	9.8%
Total	**276**	**100%**

Table 13 Cross-hatching designs

	No.	%
Lines	70	35.4%
Square and lines	48	24.2%
Circles	29	14.7%
Quadrants	27	13.6%
Chevrons	12	6.1%
Irregular	9	4.5%
Rosette	3	1.5%
Total	**198**	**100%**

Table 14 Centralising designs

have regular designs of single types of motifs whereas these designs mix motifs. They are however hard to interpret. While present in small numbers at many sites they are too rare to make statistically significant claims. Given their apparent mix of motifs, they may represent an active attempt to show multiple associations.

Centralising

Figure 11 illustrates the different types with the exception of irregular centralising, while **Table 14** shows the various sub-groups. The most common type is lines, which includes designs with plain incised lines aligned with the centre of the object. The second most common type is square and lines, in which the defining feature is an incised square around the outside of the glyph, normally with a cross and lines converging on the centre of the glyph. The third most common is circles, which mostly consists of designs with a central single or double circle motif surrounded by lines as well as other designs with a dominant circular motif. The fourth most common is quadrants. This design is unusual as it is partially defined by symmetry as well as alignment and consists of glyphs with segments that have rotational or reflectional symmetry around a normally cross axis. Chevrons

Figure 11 Centralising designs, not to scale. Top: lines (dt-492), square and lines (BM, 1936,1216.138, Cat. 77), circles (dt-1). Bottom: quadrants (dt-3941), chevrons (BM, 1938,0108.132, Cat. 44), rosette (dt-6905) (Domuztepe images courtesy of the Domuztepe project)

Figure 12 Divided designs, not to scale. Lines (dt-303), cross-hatching (dt-1787) and chevrons (dt-7333) (images courtesy of the Domuztepe project)

is the fifth most common type and consists prototypically of a central cross with V shapes (chevrons) in quadrants aligning with the centre of the glyph. The sixth most common is irregular centralising which covers glyphs with a centralising design that do not fit into any of the existing groups. Finally 'rosette' covers three glyphs with multiple 'petals' aligned with the centre of the glyph. Although they form a very small group they do provide a clear parallel between Late Neolithic glyphs and the designs known on impressed sealings at Tell Sabi Abyad (see Chapter 5).

Divided design

The divided design group accounts for less than one sixth of glyphs (see **Fig. 12** and **Table 15**). It is dominated by the design 'lines' which covers a range of glyphs with lines aligned in a variety of linear patterns, normally divided by a central division (although occasionally with no central division, as in **Figure 12**, or more than one division). The second most common group is cross-hatching divided, which covers designs that are a divided version of cross-hatching and were differentiated from framed cross-hatching by the dominant motif. The third most common is chevrons and includes designs with the same v-shaped incisions as centralising chevrons but arranged along the glyph, as opposed to focusing on the centre of the object.

	No.	%
Lines	76	79.2%
Cross-hatching	12	12.5%
Chevrons	8	8.3%
Total	**96**	**100%**

Table 15 Divided designs

Figurative design

There are 26 figurative glyph designs: 18 anthropomorphic and eight zoomorphic. All the anthropomorphic glyphs date to the Halaf with 16 (89%) from Arpachiyah, one from Domuztepe and one Tell Barri.

The classification of the glyphs with anthropomorphic designs is difficult due to the subjective nature of the category. **Figures 13–15** show the anthropomorphic designs. Cat. 47 (**Fig. 13**) is convincingly foot shaped (complete with toes), but it is unclear if dt-171 (**Fig. 14**) shows hand lines or cross-hatching on a hand-shaped glyph. The lines are deepest at the finger 'joints' but it is unclear. The sixteen examples from Tell Arpachiyah are all from impressions (**Fig. 15** is one of the better preserved). All the impressions have the same hand shape, but the preservation and publication makes it difficult to know if they were made by the same or a few similar seals. From what can be reconstructed of the design (**Fig. 16**) the fingers are marked

Figure 13 Foot from Tell Barri (BM, 1936,1216.173, Cat. 47)

Figure 14 Hand from Domuztepe (dt-171) (image courtesy of the Domuztepe project)

Figure 15 Hand from Arpachiyah (BM, 1934,0210.389, Cat. 42)

Figure 16 Reconstructed hand from Arpachiyah (after von Wickede 1991, fig. 1.1)

but the central pattern is more ambiguous and does not conclusively relate to any patterns on the hand.

Anthropomorphic glyphs are interesting but rare, which makes it difficult to relate them to the wider Late Neolithic glyptic. The link between the shapes of the glyphs and the designs (in that both shape and design are naturalistic), suggests there was an association between creating impressions and the real life imprints of human hands and feet.

There are eight glyphs with zoomorphic designs, all of which show quadrupeds, two examples are shown in **Figure 17**. Five of them (four from Tepe Gawra and one from Yarim Tepe III) date to towards the end of the Late Neolithic which is unsurprising as from the Late Ubaid onwards the majority of glyphs have zoomorphic designs. Their rarity in the Late Neolithic is one of the key indications of a disjunction in glyph designs from the Early Northern to the Late Northern Ubaid, as discussed by Amiet (1980b, 16–17). Two are Halaf (one from Domuztepe (**Fig. 17**, top) and one from Tepe Gawra) and the remaining one is from the late Pottery Neolithic (also from Domuztepe; **Fig. 17**, bottom). The Pottery Neolithic example provides a parallel with the Tell Sabi Abyad glyptic where around a quarter of the impressions depict quadrupeds. As with the anthropomorphic glyphs, these designs are too rare to analyse statistically. While it seems likely that they are predecessors of the design types that dominate the Late Ubaid, it is interesting that within the sample analysed for this publication, zoomorphic designs appear unimportant in the glyptic of the Late Neolithic.

Figure 17 Zoomorphic glyphs (top: dt-6352, bottom: dt-3812) (images courtesy of the Domuztepe project)

Irregular design

There are 15 objects in the irregular group. These are not irregular in that they were created in a haphazard way, but they belong to this group because their design does not fit any of the other categories created for this study, nor do they have much in common with one another. It is likely that as new glyphs are found with similar or linking designs, many of them may fit into existing or new groups.

They offer little to the overall debate around glyphs except to underline the incompleteness of the sample, and more importantly to illustrate how standardised Late Neolithic glyphs are as they represent fewer than 3% of the total sample.

No design

As the previous sections have discussed, most seals have a single design covering the entire face of the object. There are also 18 objects with no design, some, such as the left image in **Figure 18** are highly finished and the wear visible around

Figure 18 Three types of object with no design. Left: BM, 1934,0210.368 (Cat. 25), centre: BM 1934,0210.359; and right: dt6872 (image courtesy of the Domuztepe project)

the suspension in this specific example suggests it was never intended to have a design. Others, for example the centre object in **Figure 18**, look unfinished. However, for others such as that to the right of **Figure 18**, it is unclear if it is unfinished or intended to look that way. As a group some are likely to be glyph blanks but many others may be beads or pendants which were never intended to be decorated.

Conclusion

Late Neolithic stamp glyph motifs are built on a framework of simple geometric shapes arranged in a variety of patterns. Most of these patterns consist of a single motif that covers the entire face of the glyph. More than a quarter of all glyphs have quadrilateral cross-hatching. None of these glyphs are identical, but it does illustrate that Late Neolithic glyphs existed on quite a tight continuum of geometric motifs. While there is individual variation in the designs, I think this relative uniformity, combined with the limited variety of shape and regular sizes, demonstrates that a stamp glyph would have been recognised across the Late Neolithic world as a specific type of object.

Design compared to morphology

Comparing design to morphology is somewhat complicated by the sample sizes of many of the combinations. At a design group level pendant and stamp glyphs have similar percentages of cross-hatched designs, but while pendant glyphs have roughly equal amounts of centralising and divided designs, on stamp glyphs centralised designs are more popular (**Table 16**). This suggests there is a difference in the types of designs found on stamps compared to pendant seals, which is probably large enough to represent some patterning of the data, though the pendant seal sample size is much lower than that of stamps.

Beginning with stamp faces, **Table 17** summarises the data of the four most common face shapes (87.4%) with the three most common design groups (93.3%).

	Pendant glyph		Stamp glyph	
	No.	**%**	**No.**	**%**
Cross-hatching	72	49.0%	167	45.3%
Centralising	36	24.5%	143	38.8%
Divided	33	22.4%	47	12.7%
Naturalistic	4	2.7%	6	1.6%
Irregular	2	1.4%	6	1.6%
Total	**147**	**99%**	**369**	**100%**

Table 16 Design group compared to type

The data appear to show several patterns:

- Centralising designs are very common on circular-faced stamp glyphs.
- Centralising designs are very uncommon on rectangular-faced stamp glyphs.
- Cross-hatching designs are very common on rectangular-faced stamp glyphs.
- Divided designs are more common on oval-faced stamp glyphs.
- Divided designs are uncommon on circular- and square-faced stamp glyphs.
- Centralising and cross-hatched designs are common on square-faced stamp glyphs.

These patterns may suggest there was a preference for the type of design group that went with each type of face shape. This is not to say that there are specific types of glyph with certain designs and certain face shapes but that preferences may have existed.

Secondly, for pendant glyphs, **Table 18** summarises the data of the five most common face shapes (79.0%) with the three most common design groups (93.3%). The table shows less clear preferences than for stamp faces, but still suggests a few patterns:

Table 17 Correlation between the four most common stamp face shapes and the three most common design groups

	Centralising			Divided			Cross-hatching			Total		
	No.	**Col %**	**Row %**	**Count**	**Col %**	**Row %**	**Count**	**Col %**	**Row %**	**Count**	**Col %**	**Row %**
Circular	65	51.6%	63.1%	3	8.8%	2.9%	35	23.8%	34.0%	103	33.6%	100%
Rectangular	14	11.1%	17.1%	9	26.5%	11.0%	59	40.1%	71.9%	82	26.7%	100%
Oval	20	15.9%	30.3%	18	52.9%	27.3%	28	19.1%	42.4%	66	21.5%	100%
Square	27	21.4%	48.2%	4	11.8%	7.1%	25	17.0%	44.7%	56	18.2%	100%
Total	**126**	**100%**	**41.0%**	**34**	**100%**	**11.1%**	**147**	**100%**	**47.9%**	**307**	**100%**	**100%**

Table 18 Correlation betewen the five most common pendant face shapes and the three most common design groups

	Centralising			Divided			Cross-hatching			Total		
	Count	**Col %**	**Row %**	**Count**	**Col %**	**Row %**	**Count**	**Col %**	**Row %**	**Count**	**Col %**	**Row %**
Pear	19	57.6%	52.8%	3	14.4%	8.3%	14	24.6%	38.9%	36	32.5%	100%
Triangular	2	6.1%	6.7%	7	33.3%	23.3%	21	36.8%	70.0%	30	27.0%	100%
Oval	5	15.1%	19.2%	7	33.3%	26.9%	14	24.6%	53.8%	26	23.4%	100%
Diamond	5	15.1%	45.5%	2	9.5%	18.2%	4	7.0%	36.4%	11	9.9%	100%
Shield	2	6.1%	25.0%	2	9.5%	25.0%	4	7.0%	50.0%	8	7.2%	100%
Total	**33**	**102%**	**29.7%**	**21**	**100%**	**18.9%**	**57**	**100%**	**51.4%**	**111**	**100%**	**100%**

- Centralising and cross-hatched designs are common on pear-faced pendant glyphs.
- Cross-hatched designs are very common on triangular-faced pendant glyphs.
- Centralising designs are very uncommon on triangular-faced pendant glyphs.
- Divided designs are uncommon on pear-faced pendant glyphs.

With the exception of centralising designs being very common on pear-faced glyphs and uncommon on triangular faced glyphs, the relative differences are all within about 10% of the total distribution. This suggests that for pendant glyphs the association between the design group and the face shape is not very strong.

Comparing designs with face shapes is hindered by the small sample sizes, and while a range of different comparative analyses have been conducted for this study, none of the patterns are absolute. That said, the analysis has suggested that the designs on the glyphs were not entirely independent of the shapes of the glyph faces. It does appear that certain designs were associated with certain faces in a non-random fashion. Still, there was variability in the relation of forms to designs; for example, cross-hatching designs are very common on triangular pendant glyphs, but there are cross-hatched designs on all but two pendant glyph face types (screw and v-shaped, accounting for 3.8% of pendant glyphs). Even if one design would appear to be more popular on certain forms, it clearly did not exclude variation.

Material

The majority of glyphs are made of stone (519 of 565 with known materials, 91.9%). The exact nature of these stones is largely unknown, as none of the published examples or ones studied in this sample were chemically analysed or tracked to a geological source. For the most part glyphs were made of relatively soft, easily workable stones like serpentinite or steatite. They could all have been worked with lithic tools and the material is no barrier to production. Such materials are common in Upper Mesopotamia and there is no reason to assume these stones were rare, as they are commonly used for other objects in the Late Neolithic. Further research into the chemical identification and geological sources of glyphs would be useful to elucidate the extent to which glyphs might have moved from stone sources in the Late Neolithic.

There are a few glyphs of other materials: 28 clay glyphs, 15 bone or shell ones and two copper glyphs. A more interesting question is whether there were glyphs made of other, more perishable materials. Experimental work on the 4th millennium BC glyph impressions from Arslantepe suggested that from a sample of 21, six were made of metal, six of stone, seven of bone or ivory and two of wood (Cristiani, Laurito and Lemorini 2007). Metal is much rarer in the Late Neolithic than the Late Chalcolithic, but this does suggest that the preponderance of stone may not represent ancient practice. Seals made from bone or ivory may have been much more common than the few that have survived. For example Hamoukar's Uruk levels provided large amounts of bone glyphs without many stone glyphs (Gibson *et al.* 2002). However, worked bone is common at Late Neolithic sites and there is no reason to assume bone seals would have been more common. Wood or other organic materials are much more unquantifiable. Theoretically there could have been hundreds of wooden glyphs for every stone one. Unfortunately in the absence of evidence of research into what materials might have made the existing glyph impressions, it continues to be assumed that the dominance of stone is indeed representative.

Summary

Late Neolithic glyphs are distinctive objects, their range of designs, shapes and size is limited and it seems probable that they were deliberately made as such. This suggests that the category may have been known and that people in the Late Neolithic would have recognised them as a group.

Glyphs in the late 8th and beginning of the 7th millennium BC

As discussed previously, the archaeological transition from the late Early Neolithic to the early Late Neolithic is poorly understood. Settlements seem to have been abandoned and population density reduced, with people becoming largely archaeologically invisible for a couple of centuries before larger settlements begin to be found again and the Late Neolithic begins. There are only a handful of glyphs from this transitionary period; four glyphs from Ras Shamra (RS.55, RS.36.36, RS.36.102, RS.36.124), four glyphs from Tell Ramad (R.73.3, R.68.80, R.66.15, R.67.28) and one from Tell el-Kerkh (EK32). No contextual information is available on any of these glyphs but all date to the second half of the 8th millennium BC or the first two centuries of the 7th. It has been suggested, on stylistic grounds, that RS.36.124 is intrusive from Late Neolithic levels (von Wickede 1990, 41–2) and it is entirely possible that all these examples were found out of place, particularly given their date of excavation. However, beyond scarcity, there is no reason to assume these objects do not date to the 8th millennium BC. At this early phase all glyphs are only found in the western part of Upper Mesopotamia.

The presence of glyphs at Tell Ramad is interesting as the site is further south than most sites covered here. Considerably later (Early Chalcolithic or Wadi Ramah) glyphs are found in northern Israel, such as at Ha-Gosherim where over 30 glyphs have been found (Getzov 2011). It has been assumed these southern glyphs are evidence of trade links but the presence of glyphs so early at Tell Ramad might suggest glyphs are more than just an Upper Mesopotamian phenomena.

Of the nine early glyphs six of them are stamps and three are plaques, with mostly oval and rectangular face shapes (eight of nine) but with all six stamps having different profiles. In design there are five with cross-hatching, three with centralising and one with divided, loosely matching the relative percentages for all glyphs. The one distinctive feature of early glyphs is size; they are significantly bigger but also have much larger ranges with 68% of glyphs being between 20 to 50mm long, 18 to 37mm wide and 1 to 38mm high. Essentially they are around 1cm bigger in the three dimensions then other later glyphs. Seven glyphs are stone, one bone and one clay.

Site	Pendant	Stamp	Plaque	Impressions	Total	%
Tell el-Kerkh	1	68	4	4	77	57.5%
Judaidah	-	11	2	-	13	9.7%
Yumuktepe	-	8	1	-	9	6.7%
Tell Sabi Abyad	-	7	-	-	7	5.2%
Yarim Tepe I	-	7	-	-	7	5.2%
Domuztepe	1	2	-	-	3	2.2%
Ras Shamra	-	3	-	-	3	2.2%
Chatal Huyuk	-	2	-	-	2	1.5%
Qminas	-	2	-	-	2	1.5%
Tell Hasanusagi	-	2	-	-	2	1.5%
Tell Hassuna	-	2	-	-	2	1.5%
Wadi Hamman	-	2	-	-	2	1.5%
Atchana	-	1	-	-	1	0.7%
Dhahab	-	1	-	-	1	0.7%
Sakce Gözü	-	-	1	-	1	0.7%
Tell Maghzaliyah	-	1	-	-	1	0.7%
Yarim Tepe II	-	1	-	-	1	0.7%
Total	**2**	**120**	**8**	**4**	**134**	**100%**

Table 19 7th millennium BC glyphs analysed as part of this study

Glyphs and impressions in the 7th millennium BC

At the start of the 7th millennium BC glyphs became more common, with examples found from sites including Judaidah, Wadi Hamman, Yumuktepe, Ras Shamra and Tell el-Kerkh. Glyphs remain rare in eastern parts of Upper Mesopotamia, although from around 6600 BC they began to be found at sites such as Tell Hassuna and Yarim Tepe I. This study includes 134 glyphs from the 7th millennium, the majority of which come from Tell el-Kerkh (see **Table 19** for site details). Glyphs from the eastern parts of Upper Mesopotamia remain rare in the 7th millennium and there are only 11 glyphs in my sample.

As **Table 19** shows glyphs in the 7th millennium BC were generally stamp types. Of the 120 stamp glyphs 101 have rectangular, circular or oval face shapes (85.2% of glyphs without unknown face shapes) and 67 have flat, ridged or cone shaped profiles (68.4% of glyphs without unknown profile shapes). Glyph designs in the period remain relatively typical of the whole (48% cross-hatching, 35% centralising and 17% divided) with 44.1% cross-hatching designs, 33.1% centralising and 20.3% divided. There is however considerable local variation in the relative percentages of different design groups; Tell el-Kerkh (accounting for more than half of glyphs) trends to the norm, as does Tell Sabi Abyad, but other sites, such as Yumuktepe (55% centralising, 5 of 9) and Judaidah (85% cross-hatching, 11 of 13) have quite different relative percentages. The sample size at sites with the exception of Tell el-Kerkh is small but it suggests glyph designs were not uniformly distributed. In contrast to the late 8th and early 7th millennium glyphs, there is less variation in size; 68% of glyphs are between 13.5 and 38mm long, 9.8 to 29.5mm wide and 6.5 to 25.2mm high, but glyphs are still larger than the overall average. Materially 105 glyphs are stone (80.8%), 15 clay (11.5%), 9 bone (6.9%) and 1 shell (0.8%).

There are only 13 bone and 28 clay glyphs from the entire Late Neolithic and it is interesting in the early phase of glyphs that there are such high, relative percentages of both materials. This may relate to what a glyph *is*. If clay, bone or shell were a commonly appropriate medium for glyphs you would expect to find more throughout the Late Neolithic. As they are only found in numbers while glyphs were still relatively new and then become rarer, this might represent a formalisation of the concept of ideas about what a glyph should be made of, with more flexibility in the earlier centuries.

It is also during the second half of the 7th millennium BC that glyphs are found in central Anatolia at Tepecik-Çiftlik, south-eastern Anatolia, demonstrating the geographical links of Late Neolithic society. Glyph-impressed objects also begin to be found, most importantly at Tell Sabi Abyad where hundreds have been found, far more than from any other Late Neolithic site. Beyond Tell Sabi Abyad, Tell el-Kerkh has five impressed sealings (EK-75-79), the middle Khabur site of Tell Boueid II (Duistermaat 2002) has two, which closely match those of Tell Sabi Abyad.

The impressions from Tell el-Kerkh are better preserved than many later 6th millennium BC examples as the reverse sides are unusually well preserved, with only EK-079 having no clear sign of having being sealed to something. EK-074 and EK-077 have basketry and string impressions making them some of the only Late Neolithic examples of true sealings that might have sealed something closed. EK-075, EK-076 and EK-078 have clearly been attached to something but are less clearly about controlling access. All the impressions have geometric designs, none of the sealings have reported structured contexts (i.e. one that was made with visible purpose, for example a burial) and they were not found together.

Type of sealing/impressed object	Impressed	% impressed	No impression	% No impression	Total
Basketry	94	83.9%	18	16.1%	112
Pottery	31	33.3%	62	66.7%	93
Unknown	31	63.3%	18	36.7%	49
Maybe leather?	15	75%	5	25%	20
None	8	100%	0	0%	8
Maybe straw?	5	100%	0	0%	5
Plaited mat	3	50%	3	50%	6
Stone vessel	1	25%	3	75%	4
Leather bag	1	33.3%	2	66.7%	3
Total	**189**	**63%**	**111**	**37%**	**300**

Table 20 Data on the reverses of impressed objects from Tell Sabi Abyad (adapted from Duistermaat 1996: tables 5.1 and 5.2)

The level 6 settlement of Tell Sabi Abyad dates to *c.* 6000 BC and contains the 'burnt village'. As the name suggests, this layer of Tell Sabi Abyad was burnt and contained a huge quantity of *in-situ* finds. Of particular interest are the over 300 sealings, making Tell Sabi Abyad the only known example of large-scale Late Neolithic sealing practices. Three hundred sealings are published in Duistermaat (1996) and all numbers refer to them. Sixteen more sealings have been published in Akkermans and Duistermaat (2004) and around 30 more are mentioned in Duistermaat (2010), with a few published in Akkermans *et al.* (2006). Of the primary 300, 189 (63%) have impressions on them and 111 (37%) are unimpressed. **Table 20** summarises what they were sealed to and how many were impressed/not impressed within each type.

For a full discussion of the specific practices see Duistermaat (1996). Regarding context, 201 (~67%) of all the sealings came from one room (Room 6 building 2, Duistermaat 1996, 371) and the sealings were found with other, often broken, small finds including clay disks, tokens, figurines and miniature vessels (Duistermaat 1996: 367). The clay from which the sealings were made was likely to have been local to the site (Duistermaat and Schneider 1998). The sealings have been considered as evidence of administrative sealing in the 7th millennium BC (e.g. Collon 1997b; Fiandra 2000).

These sealings were initially interpreted by the excavators as sealed goods being imported into the settlement (Duistermaat 1996, 367). However, when the clay was found to be local, they reinterpreted it as a sealing system in which a transhumant element of society sealed their share of some domestic resource, possibly grain, potentially in small containers containing tokens (Akkermans and Duistermaat 1996).

Duistermaat (1996) divided the Tell Sabi Abyad designs into 27 groups, a number of which are shown in **Figure 19**. The most common design is A, representing ~25.9% of impressed sealings. This is followed by types C (~15.2%), B (~7.6%), D (~7.1%) and T (~4.6%), which together cover about 60% of the glyph designs. Of the remainder 12.7% have unknown designs leaving the remaining 22 types of design comprising only about 27% of impressed sealings. There are no Late Neolithic glyph designs that parallel the five main types although Duistermaat (2010) offers a counter-argument. Duistermaat's design types F, W, X, Z and AA, do show parallels with other Late Neolithic glyphs but account for only 6% of impressed sealings.

In the burnt village, no glyphs were found and those found in other levels fit the wider Late Neolithic glyptic, not the style of the burnt village impressions. The implications of this are uncertain, although the majority of the extant Late Neolithic glyphs are made of stone; if glyphs were also made of more perishable materials like wood they would have decayed.

Alternatively, the impressions could have been made by another class of objects used as glyphs; the fifth most common design at Sabi Abyad (T, **Fig. 19**) is a human figurine and impressions were also made at the site with cowrie shells and blank hand pendants. Due to the absence of physical glyphs, and the differences in design styles, I have not included the Tell Sabi Abyad impressed objects in the analysis.

With the present level of data I do not believe it is possible to interpret conclusively the sealing practices at Tell Sabi Abyad. One in three sealings is unimpressed, implying a significant group of people in the community did not participate in this arrangement or that a third of the stored produce went unmarked. Following Bernbeck's (2008, 62) argument that people's 'lifeworld' does not allow them to actively question all aspects of their life, an activity as mundane as a method for storing and accessing grain would likely have been an everyday one and the chance that a third of the settlement (of only a few hundred people) was actively subverting it is unlikely. This does not mean that the practices are not administrative, just that they cannot simply be explained by only suggesting the objects represent produce owned by transient elements of the community as this does not explain all of the visible practices.

I would argue that the practices at Tell Sabi Abyad could be efficacious sealing. By 'efficacious', I mean the glyphs that made the impression were created for a purpose based on a power that did not derive solely from the agency of the person or people creating the impressions. Instead their power came from the shared symbols represented on the impressions and the belief that the impressers had in the effectiveness of those symbols. The burnt village is eponymous and the impressed sealings could relate to the burning. One sealing archive has been found at Tell Sabi Abyad, but for the communal storage of perishable foodstuffs, i.e. grain, continuous ones would be required. In contrast, if the impressed objects had been assembled for a major ritual event there would be only one archive. The

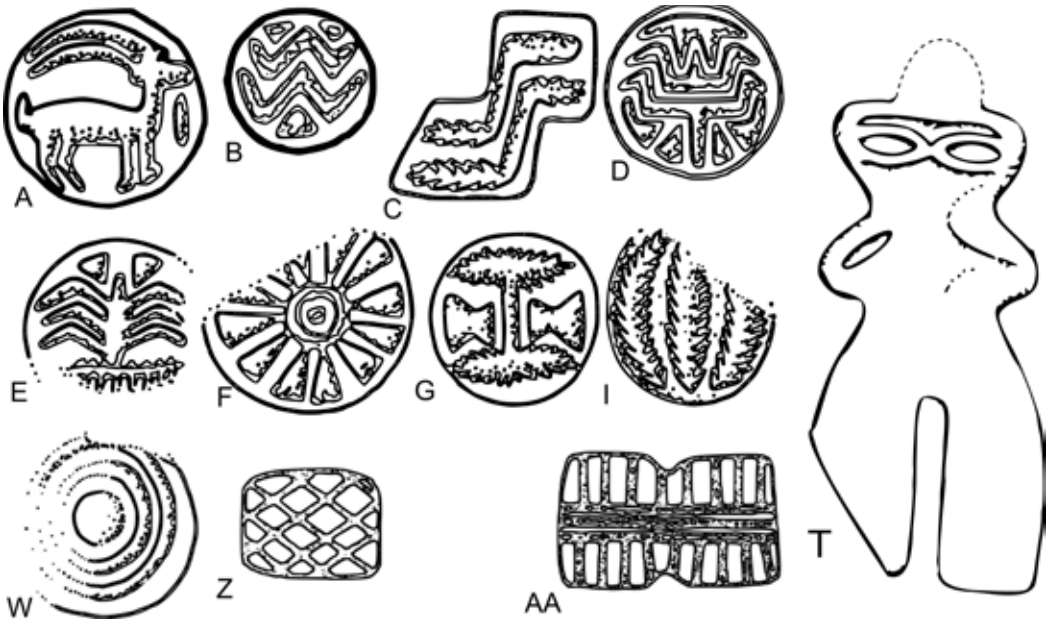


Figure 19 Glyph designs from Tell Sabi Abyad (after Duistermaat 1996, fig. 5.3–5.6)

deliberate burning of buildings appears to have been common in the Neolithic of the Middle East (e.g. Cessford and Near 2005; Twiss *et al.* 2008; Verhoeven 2000) but has not been proven either way for Tell Sabi Abyad. However, as at Arpachiyah (see discussion below), if the site was deliberately burnt, then preparatory events would have been necessary. Sealing hundreds of small vessels containing efficacious objects or substances could be a community ritual practice to prepare their settlement for burning.

There are only two other 7th-millennium BC sites with impressed objects, Tell el-Kowm and Tell Bouqras (*c.* 6700–6200 BC). Von Wickede (1990, 47) argues that both sites demonstrate a concern with control, although neither site actually has impressed sealings. At least seven impressed plaster wafers were found at Tell Bouqras (Akkermans *et al.* 1983, 356) although only three are published. No information is available on use except that two of the wafers had positive and negative impressions showing that the plaster was applied multiple times (Akkermans *et al.* 1983, 357). They have been interpreted as lids, as they have similar dimensions to the opening of plaster vessels, and plaster mortar was found on the wafers (von Wickede 1990, 45). No contextual information is available. Glyptically six had 'lozenge patterns and zig-zag lines' (Akkermans *et al.* 1983, 356) and the seventh a quadruped. The quadruped may be similar to those of Tell Sabi Abyad and the other designs have Late Neolithic parallels. However, without contextual information, phasing or images it is difficult to interpret them. They illustrate that the practice of creating impressions was not only restricted to clay, but otherwise there is not enough other evidence to interpret the practices further.

Tell el-Kowm, in north-east Syria, was excavated independently by French and American teams and the site has been treated as contemporary to Bouqras (e.g. Duistermaat 2010). The American excavation found about 500 plaster containers and approximately 200 flat pieces, which may have been used to construct storage bins or could be architectural (Dornemann 1986, 18–21). Ten of the flat pieces are decorated, and one of them may have been stamped on both sides (Dornemann 1986, 17). The French excavations found at least 200 plaster pieces and 18 others were decorated (von Wickede 1990, 47; cf. Marećhal 1982). These have been interpreted as being used in the construction of vessels and as covers (Marećhal 1982, 223–5).

These objects are unlikely to be impressed sealings; the mortar on the wafers from Bouqras could as easily be about constructing containers as closing them and I am not convinced the wafers from Tell el-Kowm are even sealings.

Glyphs and impressions from the early and middle 6th millennium BC

Around the turn of the 7th millennium BC and early centuries of the 6th millennium BC, glyphs become increasingly common and there are 356 glyphs and 67 impressions known dating from between about 5900 and 5300 BC (**Table 21**). Unlike in the 7th millennium BC these are spread across Upper Mesopotamia.

The key development in the 6th millennium BC is that for the first time pendant glyphs begin to be found in significant numbers accounting for slightly over one third of all glyphs from the period. However, pendant glyphs are not found equally across Upper Mesopotamia; in western parts stamp glyphs remain dominant but eastern parts have a more equal mix of stamp and pendant glyphs. This is shown in **Figure 20**.

While there are fewer glyphs from 7th-millennium BC eastern areas, it seems likely that this difference is significant enough to suggest that, for some reason, in 6th-millennium BC Upper Mesopotamia pendant glyphs were more popular in eastern areas than in western areas. However, there is something more interesting happening here; while the face shape of stamps is generally similar in eastern and western areas with circular, rectangular, oval and square accounting for 88.2% of glyphs in eastern areas and 85.7% in western

Sites	Pendant glyph	Stamp glyph	Plaque	Impression	Total	%
Arpachiyah	52	27	2	45	126	29.8%
Domuztepe	17	83	1	12	113	26.7%
Chagar Bazar	8	13	1	-	22	5.2%
Yarim Tepe II	10	6	1	-	17	4.0%
Fıstıklı Höyük	2	13	-	2	17	4.0%
Tell Halaf	4	6	3	2	15	3.5%
Ras Shamra	-	13	-	-	13	3.1%
Tell Sabi Abyad	1	9	-	-	10	2.4%
Kazane Höyük	1	7	-	2	10	2.4%
Khabur (Region)	3	7	-	-	10	2.4%
Çavi Tarlası	2	6	-	-	8	1.9%
Tepe Gawra	6	-	-	2	8	1.9%
Tell Brak	4	4	-	-	8	1.9%
Umm Qseir	7	-	-	-	7	1.7%
Kurdu	3	2	1	1	7	1.7%
Girikihaciyan	3	2	1		6	1.4%
Tell el-Kerkh	-	3	-	1	4	0.9%
Tell Tawila	1	2	-	-	3	0.7%
Banahilk	2	1	-	-	3	0.7%
Nimrud	3	-	-	-	3	0.7%
Atchana	-	3	-	-	3	0.7%
Tell Chenchi	2	-	-	-	2	0.5%
Boztepe	-	1	-	-	1	0.2%
Kurban Höyük	-	1	-	-	1	0.2%
Germayir	1	-	-	-	1	0.2%
Tell Barri	-	1	-	-	1	0.2%
Tell Matarrah	-	1	-	-	1	0.2%
Yumuktepe	-	1	-	-	1	0.2%
Gogjeli	1	-	-	-	1	0.2%
Tell Khanzir	-	1	-	-	1	0.2%
Total	**133**	**213**	**10**	**67**	**423**	**100%**

Table 21 6th millennium BC glyphs arranged by site and analysed as part of this study

	Eastern stamps		Western stamps	
	No.	**%**	**No.**	**%**
Circular	27	39.7%	41	29.3%
Rectangular	14	20.6%	23	16.4%
Oval	14	20.6%	12	8.6%
Square	5	7.3%	44	31.4%
Other	8	11.8%	20	14.3%
Total	**68**	**100%**	**140**	**100%**

Table 22 Stamp face shapes in eastern and western areas in the 6th millennium

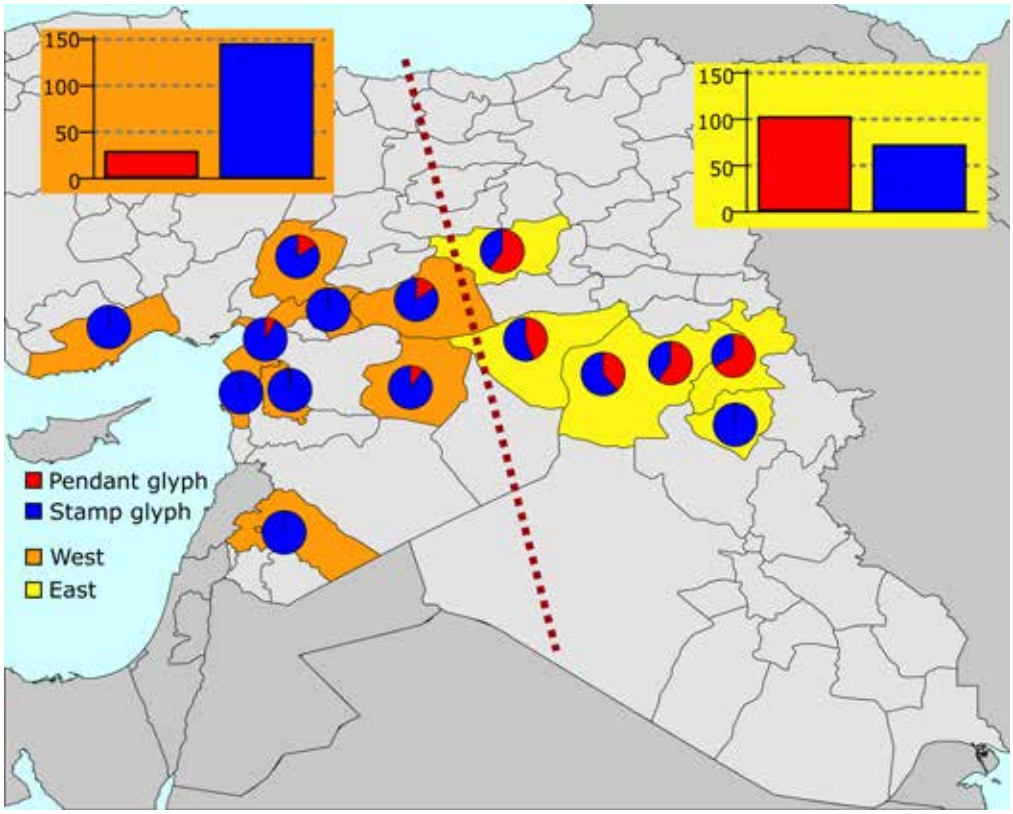


Figure 20 Map comparing the number of pendant glyphs and stamp glyphs in eastern and western areas (drawn by the author)

areas, the relative percentages within this are quite different as shown in **Table 22**. Square-faced glyphs are much more common in western areas than in eastern ones while the relative percentages of the other three types are similar. Square-faced stamp glyphs were very rare in the 7th millennium BC where they accounted for fewer than 1 percent of stamp glyphs. This development in western areas of a square stamp glyph contrasts with the development of pendant glyphs in eastern areas. Both areas are therefore displaying regional traditions in the morphology of glyphs.

By contrast there is no evidence of regional traditions in the designs on glyphs in the 6th millennium BC. **Figure 21** shows that while sites across the Late Neolithic tend to lean towards the overall ratio whole (48% cross-hatching, 35% centralising and 17% divided), individual sites do have variations. Arpachiyah has a greater preponderance of

	7th millennium BC		6th millennium BC	
	No.	**%**	**No.**	**%**
Cross-hatching	52	44.1%	189	46.9%
Radiating	39	33.1%	130	32.3%
Divided	24	20.3%	57	14.1%
Naturalistic	1	0.8%	20	5.0%
Irregular	2	1.7%	7	1.7%
Total	**118**	**100%**	**403**	**100%**

Table 23 Design groups between the 7th and 6th millennia BC

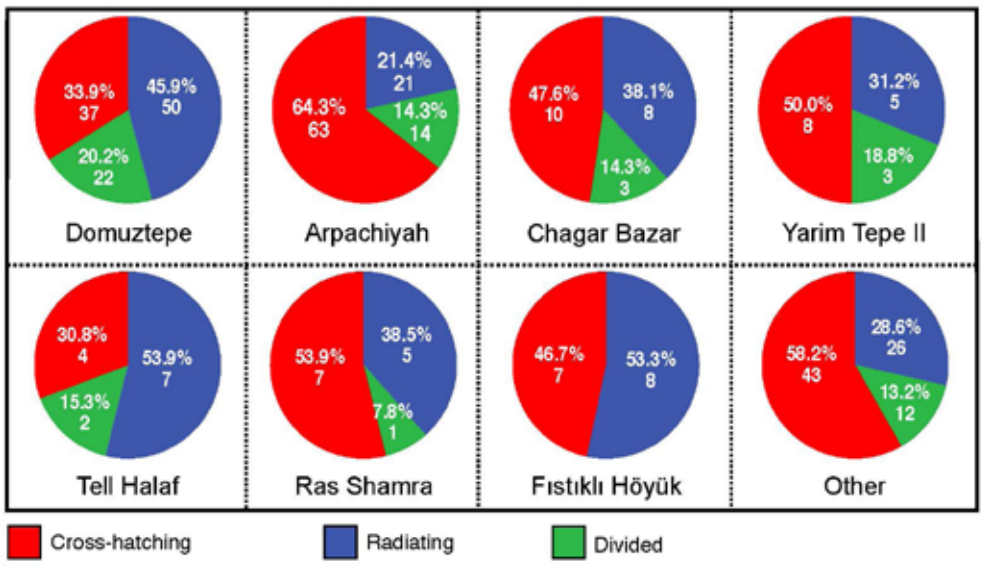


Figure 21 Charts showing the most common design groups at 6th millennium BC sites (drawn by the author)

	7th millennium BC		6th millennium BC	
	No.	**%**	**No.**	**%**
Quadrilateral	46	88.5%	88	46.6%
Triangular	2	3.8%	49	25.9%
Irregular	3	5.8%	29	15.3%
Framed	1	1.9%	23	12.2%
Total	**52**	**100%**	**189**	**100%**

Table 24 Relative percentages and absolute numbers of the amount of types of cross-hatched design glyphs in each period

cross-hatched glyphs then other sites nearby while Domuztepe has more radiating glyphs, though both maintain a ratio of divided glyphs close to the average. Both sites are within about 15% of the average however, suggesting that, at least at a design group level, there is no clear regional patterning of glyphs.

When compared to 7th-millennium BC glyphs there is little distinction in design groups for 6th-millennium BC glyphs as **Table 23** illustrates. The relatively higher percentage of naturalistic glyphs in the 6th millennium BC is because of the 16 impressions from Arpachiyah with a hand-design glyph impression which may represent only a single glyph.

This relative chronological stasis is interesting and demonstrates that at a design group level the designs found on Late Neolithic glyphs are largely static for well over a thousand years. When analysed at a design level there is less evidence of similarity between periods, but the sample size also decreases considerably resulting in less reliable conclusions. Divided designs are fairly static with similar percentages throughout. Most of the centralising designs stay the same, but 'square and lines' increases from 3.4% of the total in the 7th millennium BC to 10.9% in the early and middle 6th millennium BC. Comparatively 'lines' drops from 16.1% of the total in the 7th millennium BC to 10.4% in the early and middle 6th millennium BC. While 20 square and lines design are from Domuztepe it does suggest this was a design that rose in popularity during the 7th and 6th millennia before disappearing as no glyphs with a square and lines design are known from the late 6th and early 5th millennia.

Interestingly, there is a marked increase in the variety of designs of cross-hatching between the 7th and 6th millennia, as shown in **Table 24**. Quadrilateral designs are dominant in the 7th millennium, but drop by 41.9% in the 6th millennium, to the benefit of irregular (9.5% increase), triangular (22.1% increase) and framed (10.3% increase) designs. The growth in irregular and framed is significant, but the shift in triangular cross-hatched designs is particularly noticeable.

Most of the triangular cross-hatched glyphs (45 of 49) are made of the combination of two quadrilateral grids at a 45 degree angle (**Fig. 22**) while only four have 'true' triangular cross-hatches made up of three intersecting lines (**Fig. 23**). Both of the 7th-millennium BC triangular cross-hatched glyphs are formed from a combination of two quadrilateral grids so while this design is not new, its growth suggests a clear gain in popularity in this particular symbol.

Apart from glyphs with divided cross-hatched designs (of which there are only 10 examples) no glyph design develops between the 7th and 6th millennia which reinforces the sense of continuum at the design group level. This also suggests that the culture-historical divisions between the Pottery Neolithic and Halaf are unimportant glyptically.

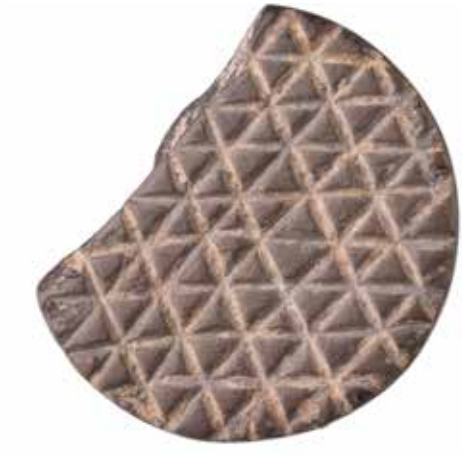
Glyphs get shorter and thinner between the 7th and 6th millennia with 68% of glyphs between 12.2 and 26.3mm long, 9.7 and 21.5mm wide and 2.2 to 13.2mm high. However, this shrinkage is only on a small scale and represents a shift of around 5mm. Within the 6th millennium BC however, stamp glyphs in the western areas are on average about 2mm smaller than in the eastern areas possibly providing supporting evidence for there being a specific type of western 6th-millennium BC stamp glyph, as discussed above. What this change in size suggests is unclear and it is worth noting that Late Neolithic glyphs start small and get slightly smaller. This implies that external visibility, except at close range, was not a great concern with Neolithic glyphs but also reinforces the possibility discussed above that glyphs were deliberately made at a similar size.

Most early and mid-6th millennium BC glyphs are made from stone (97.2%, 346) with only five from clay, two metal (both copper), one organic (theoretically bitumen but unverified), one bone and one shell.

Between the 7th and 6th millennia BC pendant glyphs become much more popular, particularly in western areas

Figure 22 Triangular cross-hatches from two combined quadrilateral grids (BM, 1934,0210.370, Cat. 27)

Figure 23 Triangular cross-hatches from a trilateral grid (BM, 1934,0210.369, Cat. 26)



while a specific style of stamp glyph is found in eastern areas. Glyphs also get slightly smaller and display the same designs as found in the 7th millennium BC although some designs become more popular.

Impressed objects are found in small numbers at a number of early and mid-6th millennium BC sites (**Table 25**) but most of the evidence comes from Tell Arpachiyah. These numbers are likely to be unreflective of the impressed objects that did exist as many are made from unfired clay and could easily have been missed or destroyed. However, at the site of Fıstıklı Höyük (Bernbeck *et al.* 2003, 56) all shaped clay lumps were systematically collected. These were found in considerable numbers across the site, yet only two had glyph impressions on them. This is important as accident of recovery cannot solely be blamed for the absence of sealings. While it is probable that more impressed objects existed, there is no reason to assume there were many more.

Small numbers of impressed objects are known from a number of 6th millennium BC sites. There are two sealings from Tepe Gawra's Halaf levels (G6-234, G6-544, Tobler 1950, pl. CLVIII.11 and pl. CLXVI.123). One of them has no published information beyond the impression, but the other is a clay disk not unlike many of the examples from Tell Arpachiyah. The impressions from Fıstıklı Höyük and Kazane Höyük are fragmentary and there is not enough evidence to tell what they were sealed to but the Fıstıklı (FK16, FK17) examples resemble impressed sealings and the Kazane (KH9, KH10) examples look more like clay disks; none of them come from structured contexts. There is a single impressed object from Tell Halaf with two impressions (1920,1211.517, Cat. 75 – previously miscatalogued as post-Neolithic) which while fragmentary clearly displays basketry and string on the reverse. The single impression from Tell el-Kerkh (AK97-Reg.63) is a complete impressed sealing showing basketry and a string with a single impression of a quadrilateral cross-hatched seal on the front, although no specific context is recorded. There is an impressed sealing from Kurdu (TK 5742) which has a matting reverse and at least two impressions but no detail is preserved of the glyph design, and again there is no contextual information. Finally, Khirbet Derak, excavated as part of the Mosul Dam salvage projects, which dates to the end of the Halaf had 30 impressed objects made from bitumen (Forest 1987), but no details were published.

Site	Impressions	%
Arpachiyah	45	67.2%
Domuztepe	12	17.9%
Tell Halaf	2	3.0%
Tepe Gawra	2	3.0%
Fıstıklı Höyük	2	3.0%
Kazane Höyük	2	3.0%
Tell el-Kerkh	1	1.5%
Tell Kurdu	1	1.5%
Total	**67**	**100%**

Table 25 6th millennium BC impressions found at selected sites

Twelve impressed objects are known from Domuztepe. **Table 26** and **Figure 24** summarise the available data on 12 of these. Six reverses are unidentifiable. Example dt-7191 is a label but either the design has worn off or it was impressed by something without a design. Sample dt-2021 is a clay disk with a flat reverse, while dt-191, dt-6750 and dt-7331 all show string marks but it is unclear whether they were labels or true sealings.

The quality of the data is too poor to comment on the Domuztepe sealings as discrete entities. Numbers dt-7332, dt-7325, dt-7329 and dt-7333 all appear to have been impressed with the same glyph and may even be a fragmented single sealing, although all come from different contexts. There are also eleven unimpressed sealings from Domuztepe; **Fig. 25** shows an unimpressed sealing (it is in fact the only true sealing from Domuztepe) and **Figure 26** shows an unimpressed label. As with the earlier burnt village at Tell Sabi Abyad it suggests there is more to Late Neolithic sealing practices than closing containers or doors through impressing glyphs into clay. Nothing in this random selection of practices suggests access or control and I would argue that the practices at Domuztepe are equally likely to be isolated efficacious sealing events.

Most of the evidence of 6th-millennium BC sealing practice comes from Arpachiyah which is also the site from

Table 26 Impressed objects and sealings from 6th millennium BC Domuztepe

Number	Design group	Design	Type	Context	Lot
dt-191	Centralising	Lines	String	Loose in soil	574
dt-1691	Centralising	Square and lines	Unclear	Loose in soil	2454
dt-2021	Divided	Lines	Clay disk	Death pit	2607
dt-6750	Irregular		String	Loose in soil	4823
dt-7328	Cross-hatching	Quadrilateral	Unclear	Loose in soil	3976
dt-7332	Divided	Chevrons	Label	Loose in soil	4008
dt-7325	Divided	Chevrons	Unclear	Loose in soil	3981
dt-7329	Divided	Chevrons	Unclear	Loose in soil	3976
dt-7331	Divided	Lines	String	Loose in soil	3096
dt-7333	Divided	Chevrons	Unclear	Loose in soil	4889
dt-7191	No visible impression		Label	Loose in soil	5915
dt-4284	Centralising	Lines	Unclear	Loose in soil	3732

Figure 24 Sealings from Domuztepe. Top row: dt-191, dt-1691, dt-2021; second row: dt-7332, dt-7325, dt-6750; third row: dt-7328, dt-7331; fourth row: dt-7329, dt-7333; bottom row: dt-7191, dt-4284. None to scale (images courtesy of the Domuztepe project)

Figure 25 Unimpressed sealing (dt-4571) (image courtesy of the Domuztepe project)

Figure 26 Domuztepe unimpressed strung lump (dt-4241) (image courtesy of the Domuztepe project)

which the belief in Neolithic sealing and administration derives (e.g. Akkermans and Duistermaat 1996; Carter 2010; Fiandra 2000). Mallowan reported finding approximately 50 impressed objects although following von Wickede (1991) there are in fact 71. Von Wickede split these into two main groups: 27 'Gawra' (corresponding to the Late Ubaid phases XI/XI-A at Tepe Gawra) objects, 42 Halaf objects (three of which have two different glyph impressions), one Ubaid and one Ninevite objects.

The sealings from Arpachiyah have been used as the evidence for administrative practices in the Halaf, but this interpretation is based on incorrect assumptions as none of them were sealed to an object. Before discussing this it is important to note that other than the sealings from the burnt structure there is great ambiguity in assigning many of the sealings from Arpachiyah to specific periods. Von Wickede assigned chronological periods typologically, which is understandable given the limited contextual information, but while there are Ubaid levels at Tell Arpachiyah they have never been reliably dated and were poorly excavated with little appreciation for negative features. An example of the difficulty is 53/463 (**Fig. 27**) which shows a caprid. It was found in the 'T.T.4 Well' which was a Halaf period well that fell out of use in the Ubaid and was slowly back-filled. However, the objects in the small finds catalogue stored in the British Museum with the context 'T.T.4 Well' are a clear mixture of both Halaf and Ubaid objects without recorded depth. Because of this ambiguity, I have accepted von Wickede's (1991) assignations unless there is clear contextual reason to challenge them. As such, all sealings he assigned as 'Gawra' are assumed to be Late Ubaid and therefore excluded from this study.

Of the 42 impressed objects from Arpachiyah, 26 come from the burnt structure of which 10 were clay disks, 15 were labels and one is most likely a piece of wall plaster without impression. No accurate contextual information is available on the other 16, but there were five clay disks, three labels, two sealings, one with matting on the reverse and the other with a string, and six unclear reverses. The 'burnt structure' at Arpachiyah is a building that was found in level TT (Top of Tepe) 6, the last unambiguously Halaf level, which contained a number of high quality objects. It has been interpreted in a variety of ways of which the most compelling is a deliberate pseudo-funerary burning (Campbell 2000). Neither the labels nor the clay disks could actually be sealed to another item/object. Only one Halaf impressed object from Arpachiyah (53/1324g) has been clearly sealed to anything (the matting example).

Figure 27 Impression from Arpachiyah showing a caprid (53/463) (image courtesy of UCL, Institute of Archaeology)

Figure 28 Left: Clay disks (53/1324f) and right: strung clay (53/1324a) (images courtesy of UCL, Institute of Archaeology)

Figure 28 shows typical examples of the two main types. Clay disks, on the left, consist of simple disks of clay and could not have 'sealed' anything and by implication are unlikely to have protected or controlled access. Von Wickede (1990, 98) suggests they are clay lids. However, as von Wickede (1990, 97) himself points out, the average size of the clay disks (up to 3cm) is less than that of the closed form vessels at Arpachiyah (between 5cm and 8cm) making it unlikely that they functioned as lids.

The second type (on the right in **Fig. 28**) are tubular lumps of clay with singular strings through them. They were interpreted by von Wickede (1990, 35) as labels or wrapped around knots which closed containers, a purpose Mallowan and Rose (1935, 98) also suggest. Without a knot there is no way the labels could have stopped anything they were attached to being opened and those examples that are broken, as in **Figure 28**, show no sign of having knots. There is nothing inherent in a tubular lump of clay wrapped around a string to suggest it was for protection and controlling access. Previous interpretations of sealing practices at Arpachiyah have singularly ignored their failure to actually *seal* anything.

With one exception, there is also no evidence that the Halaf-period impressed objects from Arpachiyah were used administratively. At best the practices could be described as labelling, which, while potentially administrative, could have a wide number of interpretations. When one further takes into account the designs a bureaucratic interpretation is even less likely. Fourteen of the impressed objects from the burnt structure have the same hand-shaped impression on them, though possibly there is more than one similar hand-shaped glyph represented. The hand design at Arpachiyah is presently unique. Six more have cross-hatching (three of which also have a second impression which is divided, centralising or a framed cross-hatching example), one has a centralising design and four have unknown or unclear designs. Many of the impressed objects have been impressed multiple times, up to 18, often with the same glyph. If the practices in the burnt structure at Arpachiyah are bureaucratic, then the level of social inequality (with 50% of all 'sealed' material having the same design) would be unprecedented for the Late Neolithic.

An alternative interpretation is that the sealings in the burnt structure represent an exceptional event. The sealings from outside the burnt structure come from individual scattered contexts with no semblance of formality or structure. As with Tell Sabi Abyad I suggest this is sealing for efficacious purposes. It is unlikely to be a coincidence that the only cache of Halaf sealings was found in a burnt pseudo-funerary context. Such a potent ritual event would have involved ceremonies and given the small size of Arpachiyah it is likely people came from other places to the ceremony and in this context the impressed objects could represent the attachment of powerful symbols to objects or people associated with the occasion.

It is difficult to know exactly what occurred at Arpachiyah as the excavation was poorly executed. The director, Max Mallowan, employed 180 workers with only two supervisors, although he did hire some experienced local overseers (Mallowan and Rose 1935, 2); for many trenches the field notebooks (stored in the British Museum) contain little beyond isolated comments. Even the plan of the burnt structure (**Fig. 29**) is very unclear and there is no recorded relationship between the rooms nor is it clear which rooms objects came from – though it is clear from the field notes that many came from the largest room. The edges of the structure were denuded but the remaining plan is very difficult to rationalise as a single building, particularly as it apparently has no doors.

It is therefore hard to ascertain what practices were happening at Arpachiyah, and while it is clear that there were interesting Late Neolithic social practices at the site it is

impossible to know what they were. Assuming that it was a deliberate burning then it seems plausible the impressed sealings were involved in this destruction and it is especially unfortunate that we have no idea what contexts within the burnt structure the impressed objects came from or whether they were associated with other objects.

None of the evidence for 7th or 6th millennium BC sealing practices explicitly suggests bureaucracy. Most impressed objects are found isolated in rubbish deposits or come from exceptional events – the 'Burnt House' at Arpachiyah and the burnt village at Tell Sabi Abyad. While the rubbish contexts may represent structured deposition, there is no reason to assume this and there is no reason to suppose they have anything to do with formalised administrative practices. Instead the isolated nature of the practice supports the idea of individual events of efficacious sealing for discrete purposes.

Glyphs and impressions from the end of the 6th millennium to the mid-5th millennium BC

The evidence of glyphs from the end of the 6th millennium BC is very limited; at least five were excavated at Yarim Tepe III, three stamps and two pendants, but information was only published on the two pendants. One is an oval-shaped pendant with triangular cross-hatching while the other is a pear-shaped pendant with a naturalistic design of two opposed quadrupeds. Seals are known to have been found at other sites like Tell Aqab (Davidson and Watkins 1981, 10) but are unpublished. As with other types of material culture during the Halaf-Ubaid transition there is a couple of hundred years where essentially no glyphs are known. From around the end of the 6th millennium BC down to about the middle of the 5th millennium BC (5100–4500 BC) quite a few glyphs are known, though not in the same numbers as during the earlier 6th millennium BC. Fifty-seven glyphs are included in this study. There are 31 from Tepe Gawra (14 pendants and 17 stamps), 15 from Tell Kurdu (one pendant and 14 stamps), eight from Arpachiyah (two pendants, one plaque and five stamps) and three from Ras Shamra (three stamps). There are also 12 impressed objects from Tepe Gawra.

The smaller sample is partially related to excavation as the Early Ubaid has been less popular than the Halaf in recent decades (none of the glyphs in this section were excavated after 1976) but even so glyphs seem to become less popular during the first half of the 5th millennium BC. Otherwise they are much the same as glyphs from the 6th and 7th millennia; of the 57, 39 are stamps, 17 are pendants and there is one plaque. They maintain a similar geographic division to the 6th millennium BC with almost equal splits of

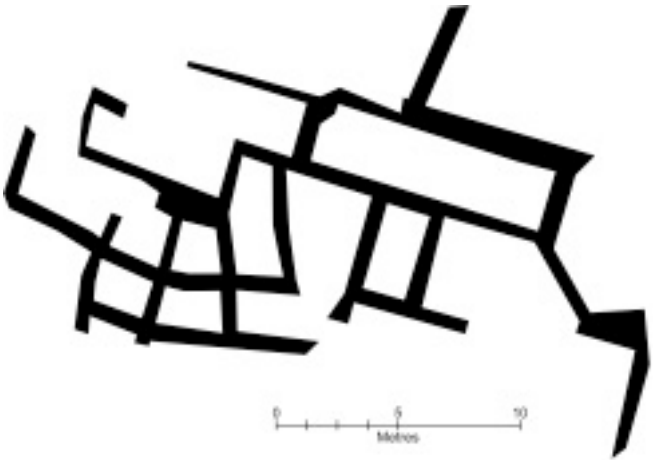


Figure 29 'Burnt House' (after Mallowan and Rose 1935, fig. 3)

pendant seals and stamps in eastern parts (22 stamps to 16 pendants) and a dominance of stamps in western parts (17 stamps to one pendant).

Both the shapes and designs of glyphs in this period are much the same as in the 6th millennium BC without evidence of the beginning of a transition of designs in this sample. After the middle of the 5th millennium BC naturalistic designs became much more common (**Fig. 30**), while geometric designs were much less popular. It is unclear when Late Neolithic glyphs stop being used; there seems to be a transition from about the middle of the 5th millennium BC down to the end of the 5th millennium BC but there is only limited evidence of glyphs during this time. There is some evidence of a later transition, for example Değirmentepe, a late 5th-millennium BC site north-east of Malatya. Turkey has around 450 impressed sealings which display a combination of naturalistic and geometric impressions as **Figure 31** illustrates. What is apparent, however, is that the geometric designs that dominated glyphs for two and a half thousand years became much rarer.

There is very little evidence of sealing practices in the early 5th millennium BC, essentially constituting 12 impressed objects from Tepe Gawra. The dating and context of these sealings is unclear (von Wickede 1990, 126–7) and no information is recorded on the sealings themselves, only the impressions. This makes it impossible to interpret the sealing practices visible at the site.

Conclusion

This chapter has focused on Late Neolithic glyphs from their first appearance towards the end of the 8th millennium BC until their disappearance in the middle of the 5th

Figure 30 A 'Gable' type glyph (BM, 1922,0511.105)

Figure 31 Impressions from Değirmentepe (after Esin 1994)

millennium BC. The overarching point has been that Late Neolithic glyphs were a distinctive group of objects and, with the exception of pendant glyphs that became popular in eastern parts from the 6th millennium BC onwards, did not change significantly over 2,000 years. I would argue that this stasis in shape, design and size suggests they represent a section of one of the imagined communities that united parts of the Late Neolithic. The next chapter will analyse what evidence there is for the use of Late Neolithic glyphs, beyond creating impressions, before widening the argument to suggest glyphs symbolise an identity that can be traced to the Early Neolithic. This explains the stasis in forms and also why, with the end of the Late Neolithic as a whole, they began to fall out of use. The chapter has also argued that the sealing practices visible in the Late Neolithic relate to efficacious sealing for specific events. These range from large-scale events such as the burning of Tell Arpachiyah to small isolated events which resulted in the low number of sealings found at many Halaf sites.

Furthermore, there seem to be associations between certain aspects of the morphology, type and face, and the designs. However, none of these associations are strong, for example, cross-hatched designs are very common on rectangular glyphs, but the other types of design occur on rectangular glyphs as well. Seals were predominantly made of common soft stones and further work is required to determine their mineralogical composition. The clay and bone or shell glyphs of the Pottery Neolithic may suggest a relative lack of formality as to the appropriate material of glyphs in earlier phases.

Chapter 5
Symbolism of Late Neolithic Glyphs

The previous chapter demonstrated that for the large part glyphs did not change much from their emergence at the end of the 8th millennium BC until the middle of the 5th millennium BC. They covered the entire duration of the Late Neolithic and then began to disappear, transitioning into a much more naturalistic glyptic. This chapter argues that this is because they were symbols of an imagined community which united people across the Late Neolithic. It outlines the contextual information on glyphs, and how many there were, before focusing on what glyphs were used and made for.

Contextual information

Very little contextual information is available on Late Neolithic glyphs as few of the sites at which they have been found have yet been published in full (i.e. Domuztepe or Tell el-Kerkh) or were published/excavated so long ago that accurate contextual information was not recorded (i.e. Arpachiyah). This limits the possibility of in-depth analysis akin to that of Rothman (2002a) or Frangipane (2007a), but this is an area where further research, as and when information becomes available, will be valuable.

The vast majority (579, 88.9%) of glyphs in the sample analysed for this publication were found in non-visibly structured deposits. However, considering the antiquity of many of the excavations and the reliance on secondary data, some of these contexts may have originally been structured. Most of the remainder are from the 'burnt structure' (see Chapter 4) at Arpachiyah (35 – 5.5%), burials (26 – 4.1%) or the 'Death Pit' at Domuztepe (7 – 1.1%). There are also two glyphs reported as having been found on floors (Z03-1, EK-045) but the published data does not make clear whether their actual position was on or near floors and what the function of the room or building was. A final glyph (YT-010) was found in an under-floor deposit at Yarim Tepe II and was interpreted as a foundation deposit, but without other examples it is hard to interpret.

Twenty-three of the 26 glyphs from burials are from Late Neolithic burials; the other three were found in 3rd-millennium BC burials from Chagar Bazar (1935,1207.428 (Cat. 56), 1938.98 and S.719) in the secondary re-use of Late Neolithic material. There are 15 glyphs from the cemetery at Tell el-Kerkh (EK-080–EK-094), two from ambiguous contexts at Arpachiyah (A.2 and B14994) and three from equally ambiguous Ubaid contexts from Tepe Gawra (38-13-766, 38-13-520 and 38-16-895). Finally there is one glyph each from burials at Judaidah (x3930), Yarim Tepe II (YT-022) and Boztepe (BZ1059).

Late Neolithic burials are rare and for the large part we do not know how the dead were disposed of (Pollock 2011, 36). Burial practices are varied as illustrated by a late 7th-millennium BC cemetery excavated at Tell el-Kerkh. The excavators found 200 graves including single graves, urn burials and mass-graves containing at least 240 individuals. Bodies were found in cremations, and primary and secondary inhumations (Tsuneki and Hydar 2011, 2, 10). Around 6% of people buried at Tell el-Kerkh were associated with glyphs, in 11 burial contexts (two mass-graves, nine single burials) containing both men and women of all ages (Tsuneki and Hydar 2011, 8). Glyphs at Tell

el-Kerkh are more common in settlement contexts, with 59 coming from the same period as the cemetery. This suggests that glyphs were not normally disposed of in graves at Tell el-Kerkh.

The other burial contexts do not counter this position. There is not enough contextual information to be sure the glyphs were definitively associated with the burials at Arpachiyah, Tepe Gawra and Judaidah. If they were, then they were from single (presumably primary) inhumations. There is no age or sex data available for the Arpachiyah or Tepe Gawra burials. At Judaidah the glyph was found under the skull of a juvenile (Braidwood and Braidwood 1960, 133) and at Yarim Tepe II the glyph was found in a pot burial of a cremated adolescent, together with a number of other vessels and beads (Merpert and Boehmer 1993, 146). The glyph from Boztepe was found in a double primary inhumation of an unsexed adult burial (Parker and Creekmore 2002, 30). There is no apparent patterning to the burial data and it appears the primary method of glyph disposal was not in burials.

The 'Death Pit', a unique feature from Domuztepe, contained six stamp glyphs and an impressed sealing. It is in many ways a burial context, and contained 10,000 highly fragmented animal and human bones (Kansa *et al.* 2009, 160) representing at least 11 heads of cattle, 21 sheep/goat, eight pigs, six dogs and 36 people (Kansa *et al.* 2009, 167). It has been interpreted as the result of a huge feasting event involving cannibalism over a short period of time (Kansa *et al.* 2009, 163). After the event the area was marked and left without buildings for a number of decades (Kansa *et al.* 2009, 163). The glyphs were 'found in and close to the Death Pit and may have been deliberately deposited there' (Carter, Campbell and Gauld 2003, 122). The uniqueness of the context makes it difficult to extrapolate general interpretations. It is impossible to know if the glyphs were associated with the living or the dead, given the involvement of hundreds of people in the feasting (Kansa *et al.* 2009, 163) and the cannibalism of some of the people found in the pit. Without comparative examples the Death Pit remains a fascinating context but does not tell us how glyphs were used in everyday practices.

While the unstructured contexts provided no archaeological evidence of structured practices they may have been the result of them. The placement of mundane material can easily be structured deposition (Richards and Thomas 1984). Some of the glyphs from Domuztepe were found in deposits consisting of feasting debris, thereby suggesting an association with feasting events. However, even if the glyphs were associated with the feasting at Domuztepe, they were ultimately found in apparently unstructured rubbish deposits.

There is another context worth mentioning; excavations at Tepecik-Çiftlik in Central Anatolia found a glyph in association with a cache of 21 obsidian points (Biçakçi, Godon and Çakan 2011, 100) dating to the second half of the 7th millennium BC. This context raises the possibility that there is an association between the movement of obsidian from central Anatolia into Upper Mesopotamia and glyphs. Obsidian is common during the Late Neolithic and the mechanism (i.e. trade or gift exchange) by which it moved is not known. Beyond Tepecik however, glyphs are not for the large part found in association with it. Where they are found elsewhere, as in the 'Burnt House' at Arpachiyah, it is never just obsidian and glyphs, there are also figurines and highly decorated pottery. The find at Tepecik is interesting, but the evidence is inconclusive; glyphs are small, easily transportable objects that could have been taken by people moving obsidian between Central Anatolia and Upper Mesopotamia, but that does not mean they were directly or exclusively associated with the obsidian trade.

The contextual data is limited but suggests that most glyphs were not deposited in explicitly structured ways. When this absence of clear structuring is coupled with the generally low numbers of glyphs and impressed objects, it seems glyphs were not primarily involved in site-based everyday practices, or at least ones that left clear archaeological traces. At a general level the contextual data tells us nothing about the identities that glyphs were involved with, nor about their contexts of use.

The number and life-span of glyphs

This study covers about 600 glyphs and 80 impressions, which includes most of the provenanced glyphs from the 2,000 plus years of the Late Neolithic across Upper Mesopotamia. This small number would imply glyphs were very rare, however this is not representative of the total number of glyphs that would have existed. Many Late Neolithic excavations were conducted before modern techniques were in use, while more recent excavations have only unearthed limited exposures. Over 100 glyphs have been found in excavations at Domuztepe which have only exposed 8% of the horizontal surface of a tell that is up to 12 metres deep and predominantly Late Neolithic. Assuming the excavated areas are not atypical which, given the contextual information discussed above, seems reasonable, this suggests there must be thousands of unexcavated glyphs at the site. Extrapolating from that there must be tens or hundreds of thousands of unexcavated glyphs across the Late Neolithic.

This picture is further complicated because glyphs are geographically not evenly distributed across Upper Mesopotamia. The excavations at Yarim Tepe II, carried out on a much larger scale than Domuztepe, yielded only 20 glyphs; some sites had no glyphs at all, even in large excavations as at Kharabeh Shattani (Watkins 1986; Watkins, Baird and Campbell 1995). This suggests that it is more than an archaeological coincidence and that varying densities of glyphs are found at different sites. There is no significant geographical or chronological patterning in the presence or absence of glyphs at sites.

Even assuming that there are thousands of unexcavated glyphs, there would still not have been enough for all the people who lived during the Late Neolithic to have had one, or even for most people to have had one. When combined with the unequal distribution it suggests that some sites, or groups of people within those sites, would seem to have been more involved in using glyphs than others. If glyphs were a symbol of an imagined community it was not equally shared by all people during the Late Neolithic, suggesting that glyphs were symbols of a specific identity.

Glyphs may have been used for generations or could alternatively have been single-use objects. If they were in use for a single generation it would suggest glyphs were very unusual, possibly only made for a singular purpose or very uncommon event. However, if glyphs were in use for many generations then, while still rare, they could have been passed between generations of people suggesting a more general purpose or identity. Unfortunately, with the present state of research, the length of time glyphs remained in circulation is conjectural. Glyphs are typologically fairly static and, with the relative exception of pendant glyphs in the 6th millennium BC, there is no way to know when they were made. All we do know is that they were disposed of fairly regularly throughout the 7th, 6th and early 5th millennia BC. Few glyphs among the sample (61 – 10.4%) have any *significant* wear though most show some wear and many have polishing around the suspension, suggesting use. Heavy wear is visible on the suspensions of 24 objects. Unfortunately, this reveals little that is definitive about the use-life of glyphs as the most common stones are soft, which would wear relatively quickly. However, without experimental archaeology, we cannot quantify the age of an object from the amount of wear. The data indicates that glyphs were generally deposited without major wear and were not curated to the point of wearing out. This suggests that glyphs were not in circulation for any great period of time, possibly a couple of generations, but more research is required to quantify this. The implication is that it is unlikely that glyphs were heirlooms passed down through many generations, but equally were not disposable, made for a single purpose and then thrown away.

Deliberate breakage and complete designs

One aspect of the condition of glyphs that offers more clues as to their use or purpose is that it seems the complete design was more important than the object itself; many glyphs (about 40%) seem to have been broken before deposition in a way that obscured the whole of the design. Very few glyphs were deposited with worn damage to the design (there are only five with damage that obscures the design) and while the quality of the data is low (on about half of damaged glyphs it isn't clear from the relevant publication whether the damage is fresh or worn) it seems that if the designs were obscured when broken the objects were deposited without attempting to reuse them (**Fig. 32**).

By contrast if the suspension wore out there were frequent attempts to re-drill one. Of the 20 glyphs with worn breaks at the suspension, 12 (60%) were re-drilled and two were partially re-drilled (10%). This suggests that, if possible, an object would be re-drilled. Most re-drilling appears to avoid damaging the design significantly, again suggesting a concern with the totality of the design. **Figure 33** illustrates this; after the initial suspension of this pendant glyph was broken a new suspension hole was drilled through the thin side of the object which, considering the level of polish, appears to have been well used before it also broke.

Of the 44 suspensions with fresh breaks, 24 also have freshly broken faces and visible damage to the whole object. The suspension holes of the 20 objects with fresh suspension breaks but complete faces do not appear to have worn out through use and instead look to have broken. There are 12 glyphs (four of which are on glyphs with an unknown wear on the broken suspension) which were re-drilled through the centre of the glyph face after the suspension was broken, and which show heavy wear on the broken suspension (**Fig. 34**). This suggests they were used after breaking and subsequent re-drilling, however there is little wear on the design faces. All the holes pierced through the face are small and do not obscure the design. As the string through the new suspension would obscure the design the re-piercing would make them impractical for creating impressions or display. This suggests that the possession or presence of the object and its design might have been more important than displaying it or using it to make impressions.

More generically, this analysis raises the question of how a stone glyph could accidentally break in light of their size and the fact that the Late Neolithic environment largely lacked hard surfaces. There has been no empirical work

Figure 32 Stamp glyph (dt6559) showing the fresh broken edge (image courtesy of the Domuztepe project)

Figure 33 Pendant glyph from Arpachiyah (53/473) with arrows illustrating piercings (image courtesy of UCL, Institute of Archaeology)

Figure 34 Re-drilled face glyph. Arpachiyah (BM, 1934,0210.374, Cat. 31)

Figure 35 Broken glyph from Arpachiyah (BM, 1934,0210.371, Cat. 28)

Figure 36 Defaced glyph from Arpachiyah (BM, 1934,0210.348, Cat. 13)

looking at accidental versus deliberate breakage in Mesopotamia in the Late Neolithic, but some work has been carried out regarding the Neolithic Balkans where the only surface that fired clay objects (including figurines and glyphs) were reliably broken on was cobbled stone floors. They did not break on grass, wooden, stamped clay or fired clay surfaces (Chapman and Daygarska 2007, 7–8). Stone cobble floors are very rare in Late Neolithic Mesopotamia, and given stone is generally harder than ceramics, the accidental breakage of glyphs must have been rare. When one looks at specific glyphs, such as the one in **Figure 35,** one wonders how half the face and suspension were smashed off so completely. Other glyphs (e.g. EK-004, Tsuneki *et al.* 1997, 4) have been broken on the opposite side of their plane of weakness. It is hard to imagine how these glyphs could have been broken by anything except intentional action.

A number of glyphs have been defaced. One from Arpachiyah (**Fig. 36**) is a particularly clear example. When combined with the unlikely breakages it seems possible that the people of the Late Neolithic deliberately broke some glyphs before deposition. The concern with breaking objects appears focused on obscuring the design, suggesting the efficacy of the objects derived from the designs. The design of the glyph in **Figure 36** is easily reconstructable and it has the most common glyph design (quadrilateral cross-hatching) which is so generic (over one in ten of all glyphs) that it makes obscuring the design to prevent identification seem pointless.

It is important to note that most glyphs are deposited complete, but it is interesting that over a third may have been deliberately broken before deposition. There are no quantifiable differences between the broken glyphs and the non-broken glyphs, but it is unlikely to be linked with concealment as the original form and design of objects is, as in **Figure 36**, generally easy to work out. I argue that glyphs were broken on purpose as breaking the physical whole of the glyph would cut the object's link to the symbolic system or performance-based event it referenced, rendering it 'ready' to be discarded. Most glyphs have designs that cover the entire face, and by extension any damage to the physical whole of the glyph might have been enough to damage any potential power it contained. In this context it is interesting that no joining fragments have ever been found. Glyphs are not the only delibrately broken stone objects to have been found from the Late Neolithic; stone bowls are rarely discovered complete and can never be reconstructed from the fragments found in excavation (Campbell 2013).

If it is true that some breaks are deliberate, this raises the possibility that glyphs were broken on the same equipment used to create them. We have little idea of how Late Neolithic glyphs were secured or how they were made. There are no workshops and even in later periods there is very little evidence of lapidaries (Sax, McNabb and Meeks 1998, 2–3). There are bead 'workshops' from the Late Neolithic, and it has been suggested that glyphs were made in the same places (Belcher 2011), but I am unaware of any glyph blanks having been found associated with bead blanks although similar technologies were involved. No experimental work has been conducted on the specifics of reductive technologies in the Late Neolithic. In experimental work on the production of Indian carnelian beads, using a sandstone or quartzite grinding stone, it took four days to hand-grind a bead to the rough shape as opposed to four hours when secured in a wooden vice (Kenoyer, Vidale and Bhan 1991, 53). There is no evidence for mechanisms to secure beads in the Late Neolithic. Ethnographically, stone or wooden anvils or benches to secure beads are common (K. Wright 2012, 17–21). Stocks (2003) carried out experiments based on images in Egyptian tombs, and suggests wall reliefs showing bead drilling carried out on three-legged tables may have represented wooden troughs containing blocks of clay into which the beads were fixed to be drilled (Stocks 2003, 215). Similar methods may have been involved in the Late Neolithic. Regardless of the specifics, a vice, anvil or bench would provide a secure surface upon which to hold and therefore make, or break, a glyph.

Reductive technologies have a transformative aspect. The people of the Late Neolithic carved stone to make a glyph, and then reduced that glyph back into stone, potentially using the same tools; they used the same forces to both create and destroy the glyph.

To conclude this section, at the end of a glyph's use-life many were broken, seemingly deliberately to damage the integrity of the design. This suggests that the designs themselves had an efficacy which through the act of breaking and separating the parts could be rendered inert. There is not enough data to say why some glyphs were broken while many were deposited complete. There appears to be no significant difference in the design, morphology or other attributes. Possibly, breakage may relate to different groups within communities, with divergent practices or notions of ritual performance relating to the circumstances in which an object reached the end of its use-life.

Possible origins and meanings

The concern with breaking the design offers a key clue as to what glyphs might have been used for. We have a standardised group of objects that existed for over 2,000 years with only minimal change, which were not evenly distributed across the Late Neolithic, show no evidence of use in quotidian events, and appear in many cases to have been deliberately broken before deposition. This suggests that the designs on glyphs were symbols, in the Peircean semiotic sense (Burks 1949, 673–4), having an arbitrary link between the specifics of what was symbolised and the symbol itself. Given the origin of glyphs at the end of the 8th millennium BC I argue that these symbols represented ancestral homelands/clans/places to groups of people spread across a range of different communities in the transient, mobile Late Neolithic. This will be discussed further in the following section, however the wider context needs to be considered first.

There was more than one way of living in the Late Neolithic and the differences in settlement patterns likely represent different societies loosely linked by 'an element of shared understandings of symbols, and perhaps even shared social narratives and myths' (Campbell and Fletcher 2013). Designs on glyphs fit neatly into this conception of the Late Neolithic, as the material manifestation of a shared symbolic system in which some Late Neolithic people participated. Much work on the Late Neolithic has treated communities (whether in a single site or on a more diverse scale) as fixed entities which interacted with other communities. Glyphs, as with other objects like pottery and figurines, provide evidence that there were ties between parts of different communities across the Late Neolithic. This would explain why the designs remain the same for so long and yet there is some variation of morphology of the glyph regionally. If the designs symbolised part of a group's (or multiple groups') identity within a community then the designs would link people across the Late Neolithic world, while the changing morphology (as well as the localised practices) illustrates their involvement in local and/or regional relationships as well.

There are not enough glyphs, nor are the designs varied enough, to account for every assumed group in society but there is no reason to suggest that all the people in one settlement must have had the same cultural identities. If one looks wider from an ethnographical perspective, many small-scale societies have people within settlements claiming different aspects of identity, and sharing others, using varying paraphernalia united by common beliefs and styles. The Jalari fisherman-caste village of Jalaripalem in South India, for example, was a village of ten local lineages from nine descent groups (Rao 1973, 17). The Jalari caste is divided into 'clans' called *intiperlu* which are made up of local lineages which arrived independently at the settlement (Rao 1973, 18). These lineages are spread around the area and the varying descent groups within the village are members of different *intiperlu* (Rao 1973, 17). Such a characteristic of society is common in users of Dravidian languages, a language group commonly spoken in southern India but found throughout the subcontinent (e.g. Narahari 2009; Rao 2004) and provides an interesting parallel to the types of practices I suggest were present in the Late Neolithic. Indian society is notably stratified, and that aspect is unlikely to be transferable to the Late Neolithic. The analogy I draw is the suggestion that different lineage groups sharing a common ideology could live in one place while retaining a connection to their lineage group. Glyphs may therefore reflect one or more of a part of the identity of these groups within disparate communities, while other objects of material culture (or glyphs) could have reflected that aspect of identity for other groups within the communities.

There is a clear contrast between settlement patterns of the 8th millennium BC and settlement patterns of the 7th millennium BC. The majority of 8th-millennium BC sites were abandoned before new smaller 7th-millennium BC sites were founded. In the Southern and Central Levant most 8th-millennium BC sites were replaced with smaller Pottery Neolithic sites in previously unoccupied locations (Kuijt 2000, 94). In Syria many 7th-millennium BC sites appear to be on virgin soil or re-occupied old sites after periods of abandonment (Akkermans and Schwartz 2003, 106–7), although some like Tell el-Kerkh continued with seemingly unbroken occupation (though the settlement shrunk from about 16 to 7 hectares; Tsuneki 2012, 63). Southeast Turkey is similar with only a few sites existing in both periods and where settlement does continue there is normally considerable change. At Çayönü, for example, the 7th-millennium BC occupation is much reduced in size, with different architecture, lithics and a shift in subsistence patterns from the 8th millennium BC settlement, all suggesting some disjunction (Yakar 2011, 97). In Iraq archaeologically there is little or no evidence for 8th millennium BC occupation (Campbell and Fletcher 2013, 3).

While there is clear continuity between the periods in a variety of object types, e.g. Byblos type arrowheads (Akkermans *et al.* 2006, 153), there is unambiguous change in settlement patterns. This change is poorly explained, and while it has been linked to climate change through human over-exploitation (Nissen 1993, 182) the evidence for this is questionable (Akkermans and Schwartz 2003, 111). There have been suggestions of increased pastoralism (Gopher and Gopher 1993, 307), but this is a symptom not a cause for

settlement abandonment, as it does not explain why people would leave their settlement and become pastoralists. While there have been no social explanations for this change, one aspect that has largely gone unemphasised is a clear adjustment in people's attachment to place.

In the 8th millennium BC arguments are frequently put forward as to how there was a strong site- or place-based identity with house-based ancestral lineages. It is argued that 'people were tied to chosen places' (Akkermans and Schwartz 2003, 98) by practices of burying the dead under the floor and rebuilding houses in the same place. It is suggested that this ancestral presence maintained order within society via communal ancestry rooted in the settlement people lived in (Kuijt 2001). This functioned as an integrating principle allowing settlements to grow to thousands of people. While rarely made explicit, Watkins (2004, 11) being an exception, much of this theory draws from Lévi-Strauss' notion of the *sociétés à maison* that sees houses as microcosms of the world (Carsten and Hugh-Jones 1995). The 7th and 6th millennia BC are different however, as the changes in settlement patterns, the great increase in mobility and the emphasis on small temporary settlements suggest that Late Neolithic people did not retain the same attachment to fixed ancestral buildings or places. At Çatalhöyük similar arguments have been made, suggesting there was a gradual shift in the first half of the 7th millennium BC from ancestral relationships situated within houses to relationships between houses (Hodder 2005, 12; Twiss *et al.* 2008, 53) which may represent a microcosm of the types of relationship that may have operated in the wider Mesopotamian Late Neolithic.

I suggest that it is during this transition from the Early to the Late Neolithic where we can find the origins of glyphs. As people left settlements to take up more transitory lifestyles, they would have required new ways of integrating with society and dealing with ancestors. These people could have retained a memory of living in large sedentary farming settlements with the designs on the glyphs representing remembered settlements. It is irrelevant whether they reflected upon specific communities or imagined ones, either way they could have used this memory to negotiate their relationships in and between these new communities. In a sense, maybe the Late Neolithic was like the colonial United States, in that it was full of people who lived together yet claimed different 'mythical' homelands. New memories that linked people to a shared past, regardless of whether it actually existed, would be a simple way to provide the notions of ancestry and identity that were lost when the settlements were abandoned. The mobile, transhumant and sedentary elements of Late Neolithic society were divided by many aspects of identity but could have had a common 'foundation' myth based on a memory of upheaval. Most societies have foundation myths ranging from the Polynesians' various mythical home-islands (Finney 2009) to the Ancient Greek belief in the 'Return of the Heracleidae', a mythological movement of the descendants of Heracles into the Peloponnese used to explain the dominance of Classical languages in Classical Greece (Hall 1997). An interesting analogy comes from the Grassfields region of Cameroon, which in the 1880s was home to over 300 kingdoms called 'fondoms'. Composed of clans and lineages, each had their own origin but each kingdom as a whole also had an ancestral origin from a single sacred site which it shared with a number of other kingdoms. The kingdoms were linked by a common myth of ancestral origin which manifested itself though shared ceremonial events (Rowlands 1987).

Essentially my point is that maybe glyphs were symbols of possibly mythical ancestral homelands. I do not believe there is enough evidence to explain the change in settlement patterns between the 8th and 7th millennia BC, but it clearly represents a profound shift in people's lifestyles, if groups had a strong attachment to place in the large sedentary 8th millennium BC settlements.

It is evident that between the 8th and 7th millennia BC general settlement patterns had changed, and the idea that people would have had mythical homelands seems plausible. Different symbols could have represented different homelands, ancestral founding figures, guiding spirits and so forth. For example at a site like Tell Sabi Abyad the preponderance of a couple of designs on the impressed objects could suggest that most of the people in the settlement traced their origin to three or four places, while a large minority traced their origin to a score of other places. If each group within settlements had different imagined homelands then the question remains as to why glyphs are relatively rare. While the extant stone glyphs may represent the relationships of a few groups in society, there could have been glyphs made of other materials like wood to represent other groups. It is equally plausible though that glyphs were restricted in use to a part of society, while other parts of society represented that aspect of their identity through another, unknown, item of material culture or even through entirely different forms of imagined community. The plural nature of Late Neolithic society is seen in the sheer variety of the burial data from the cemetery at Tell el-Kerkh, which is difficult to justify in a society where all the members of a community shared a single identity or fixed structures for burial practices. This idea of multiple identity representation is not new; Frangipane (2007b, 162) has suggested something similar to explain the variety of Halaf burial practices. Current ideas propose that part of this variety can be explained by the idea of ritual performance, in which each time the ritual specialist conducted an event it involved improvisation rather than formal practices, as there was no fixed tradition of practice (Pollock 2011). The idea of ritual performances does help explain some aspects of glyph function as shown above and in Chapter 4 (e.g. the burnt structure), but only primarily at the sub-community level as it does not explain the stasis of glyph designs.

There is no way to verify the truth of the proposition above with the present state of research, but future avenues of work, scientific analyses and further research of changing pathways between the 8th and 7th millennia BC would all be fruitful ways to test the potential of this idea. Regardless of the specificity of the suggested origin of glyph designs, my overarching argument that glyphs represent extra-regional descent groups allows most practices surrounding glyphs to be explained. Essentially I argue that glyphs are the physical manifestations of practices that existed to provide

aspects of an identity to members of a community by displaying them, stamping them or even just possessing them. Seals in child burials are a case in point; they could have represented a memento of the only identity the deceased had at death as they did not have time to create new identities or integrate more closely into the community and develop their own. As discussed, there are not enough glyphs, nor are they varied enough to represent every descent group within the Late Neolithic, but it is possible there were more glyphs constructed of perishable materials or that totally different objects of material culture were used that have not survived. It is possible that it was only specific groups within society that had this common identity, for example ritual specialists or craft specialists who inherited their status, but the evidence and theorisation of Late Neolithic social practices is insufficient to elucidate the existence or nature of specialists. It seems likely that Late Neolithic society was connected in ways we are only beginning to understand, and a shared material culture in a setting of great differences that is static for almost 2,000 years plausibly relates to a pre- or earliest Late Neolithic ideology. When this ideology finally began to break down almost 2,000 years after its inception, glyphs and other shared aspects of material culture are changed by stratification and other economic practices that lead to something more resembling traditional concepts of the development of state societies.

What were glyphs used for?

Taking the arguments presented in the previous sections I argue that glyphs had two main uses. The first use was identification. Given the size of Upper Mesopotamia, it is likely there was only limited connections between the people who might have shared membership of the imagined communities. Glyphs could then have served as a way to identify people as group members to other people or to themselves, for example when different members of the imagined community met, or to identify people within communities as members of the imagined community to non-members.

The second use of glyphs was as amulets and talismans. This suggests that glyphs could be used apotropaically or to project their power to affect a wide range of short term or transient identities. These identities are characterised by impermanence, not duration per se and involve temporary aspects of existence like being ill or attacked by spirits. They are archaeologically intangible, but could cover a wide range of examples. There are widespread examples of such practices in the use of seals from other periods. Goff (1956) provides a number of examples from a range of texts (dating to *c.* 2100–500 BC) that refer to the use of cylinder seals for various magical purposes. One of the most common examples of the use of cylinder seals for amuletic purposes is found in healing texts. For example, a text designed to stop a pregnant woman losing her baby refers to placing a range of amulets, of many types including seals, at various points on her body (Goff 1956, 25). A similar text uses seals as amulets to aid childbirth (Goff 1956, 25). A third text equates seals of various stones to particular attributes with a range of protective and magical properties (Goff 1956, 27). These examples show how seals were used as amulets in mundane contexts for amuletic purposes using the inferred power of the object.

Goff also provides examples of the talismanic use of cylinder seals. Particularly relevant are two texts that refer to the sealing of pits containing magical substances to guarantee the magical contents (Goff 1956, 28–9). This is comparable to the practices involved in administrative sealing as both have similar purposes to ensure the contents of the sealed space are not tampered with. However the purpose behind the sealing of a pit containing magical substances to ensure the efficacy of those substances is a substantively different purpose from sealing a jar of grain to prevent the contents from being stolen. This is interesting as it suggests that the sealing of containers did not have to be done for the purpose of administration or bureaucracy, but could have had other functions.

There is no conclusive evidence beyond the creation of impressions of how Late Neolithic glyphs were used, but I believe that they were indexical symbols which symbolically represented an ascribed identity and reflected locally made decisions in the performance-based ritual of the Late Neolithic for amuletic or talismanic purposes. Indexical symbols are a development of Piercian semiotics and are 'symbols that are associated with the represented object by a conventional semantic rule, and they are simultaneously also indexes in existential, pragmatic relation to the objects they represent' (Tambiah 1984, 4). This means that glyphs could have had formal purposes and meanings, but that indirectly through their indexical relationships could be used flexibly as the situation demanded. The indexical uses in particular may explain the deposition of many glyphs, as a glyph may only have been necessary during the event itself. A glyph that protected a woman during pregnancy and childbirth would be unnecessary once the woman had given birth. Similarly once a curse or illness had lifted, an apotropaic glyph would no longer be necessary. Seals could have been worn by travellers between communities for apotropaic purposes who, upon reaching their destination, threw their glyph away – its amuletic value gone. There is a wide range of possible apotropaic uses of glyphs as with any amuletic device.

However, the very rareness of seals somewhat contradicts the above conjectures. There are not enough glyphs to imply wide use for apotropaic or talismanic purposes in the Late Neolithic. It is possible that use was restricted to specific purposes (i.e. protection from certain spirits), but as their unequal distribution and low numbers suggests, glyphs may have been used only by specific parts of communities while other parts of the community had other mechanisms for dealing with events like illness. Otherwise, the specialists leading the performance-based events might have only sometimes used glyphs. Much more could be theorised about such short-term practices but ultimately, without further evidence or wider theorisation of Late Neolithic social structures, the argument remains cyclical. However, in the absence of evidence of community level uses of glyphs such specific uses seem plausible, particularly if we take into account ideas about ritual performance in the Late Neolithic (e.g. Campbell *et al.* 2014; Pollock 2011). It is an area where

Figure 37 Clay disk from Arpachiyah (53/1324) (image courtesy of UCL, Institute of Archaeology)

further research is necessary to understand Late Neolithic beliefs.

In this light, amuletic or talismanic uses are unlikely to have been wholly formalised, but might have resulted from the improvisation by specific specialists who upon encountering a situation appropriated a powerful efficacious symbol. Performance may account for the difference in treatment between different glyphs, explaining why some may have been deliberately broken and some were not. The relative informality in the practices leading to their deposition led the involved persons to decide *ad hoc* on the appropriate practice. Hopefully, as studies of glyphs and the Late Neolithic advance, specific examples of this level of practice may be identified and discussed.

What was the purpose of creating impressions?

In the previous chapter I argued that the isolated extant visible sealing practices in the Late Neolithic were related to sealing for efficacious purposes (as in sealing to have an effect). If glyph designs are efficacious, and if this derives from an ancestral or mythical association it reinforces this interpretation. Creating impressions is a talismanic use of a glyph as it projects efficacy but whether the impression iconically reflects the glyph used to create it (efficacy deriving from the glyph) or if it is a reproduction of the glyph (with its own innate efficacy) is an interesting but unanswerable question.

An impressed sealing is more than just an icon of a glyph as it also indexically reflects the person, people or group who made the impression(s). As such it is unlikely an impressed sealing or object was ever made for only one purpose. At Arslantepe the glyphs are interpreted as having been used by persons or 'institutional' persons but the excavators suggest the variety in designs and styles 'reflects the existence of different social groups, perhaps of different cultural and even ethnic roots, who converged in the economic system of the palace' (Frangipane 2007a, 475). Within this context, while the primary role of the sealing practices may have been economic, with the sealings iconically representing the people or the institution they represented, it is likely that they also indexically referenced the power relations between these proto-bureaucrats and the different social groups in the area. This is not passive sealing for bureaucratic purposes, but an active practice with living persons embroiled in relationships. There are probably no examples of sealing practices that were purely of single function, whether magical, administrative or branding, and any practice would have involved multiple forms of relationship reflecting the multiple nature of impressed sealings. Within this more fluid view the sealing practices in the Late Neolithic are therefore unlikely to have only one meaning and, given the unique contexts within which they are often found, suggest sealing practices were used in a performance-based mechanism with a purpose to fit the specific event (i.e. burning the settlement or building at Tell Sabi Abyad or Tell Arpachiyah).

It is also important to emphasise that Late Neolithic impressed objects were not uniquely about closure as for many varieties of sealing practices, such as the clay disks from Arpachiyah (**Fig. 37**), this was not a concern. Possibly the clay disks were talismanic or amuletic tokens given or taken for a specific purpose, for example protection while travelling or from illness. At the same time there are impressed sealings from a wide range of sites, most importantly Tell Sabi Abyad, where closure seems to have been a key aspect. This ambiguity further supports the idea that performance and improvisation was important to sealing practices in the Late Neolithic. The variety of visible practices reflects the divergent ideas and beliefs of the participants. Within this I do not believe it is possible to provide a singular definition of the purpose of sealing practices, and it is likely that the variety in sealing forms represents a range of sealing uses. The implication for this is that there was no formal system regarding how impressions were created, but fluid decisions taken at different events where the assembled group or a ritual specialist decided a token was required, or that a group of objects should be sealed up, or whatever practice was deemed most appropriate to the situation.

As such impressed objects would have been made as required. The use of the efficacious character of glyphs at specific events explains both singular impressed sealings in apparently random contexts and large scale sealing events at Arpachiyah and Tell Sabi Abyad. Both scenarios imply sealing or impressing using a powerful symbol for whatever purpose was appropriate. Sealings therefore functioned as indexical icons (Burks 1949; Tambiah 1984, 4–5, 132), deriving their power from the designs but their use was also situational, based on context.

Conclusion

In conclusion, this chapter has argued that Late Neolithic glyph designs originated from ancestral memories and a need for fixed conceptual elements in the fluid world of the Late Neolithic. This memory was used symbolically by groups of people within Late Neolithic communities to negotiate their relationships both within their own and between other communities. While this symbolical meaning may have exhibited the formal 'meaning' of glyphs, they were also used indexically in performance rituals for a range of magical uses. As such I suggested they were associated with real or

perceived kin identities above the community level, while being used in transient situations at or below the community level. These include the use of glyphs for a variety of amuletic or talismanic purposes deriving from the efficacy of the glyph design and the shared symbolic system it referenced.

Seals appear towards the end of the 8th millennium BC and show no fundamental change until the end of the Late Neolithic. While there are some morphological changes, there is no evidence of changing practices or associations between glyphs and their contexts, most of which appear unstructured, and I assume the symbolic meaning of glyphs remained (relatively) stable for the entirety of the Late Neolithic. As such, the shared symbolic system appears to originate from the transitionary period between sedentary farming communities in the Early Neolithic and the more mobile life patterns that characterise the Late Neolithic. This is presumably related to social changes occurring during this time. None of the visible practices contradict this, though I acknowledge much work remains to be done.

There is still much that we do not know about the Late Neolithic, but the argument made in this book fits the evidence we do have and our understanding of Late Neolithic society far more than just a narrative of emergent bureaucracy.

Conclusion

This book argues that glyphs were used to unite groups of people across the Late Neolithic who shared aspects of a common identity and beliefs. These identities and beliefs, at least as symbolised on glyphs, appear to have originated from the transition from the Early to the Late Neolithic and once established lasted relatively unchanged for around 2,000 years, considerably longer than other examples of Late Neolithic material culture. I have suggested that this was tied to some sort of clan-like identity related to mythical/real homelands that were used by people in the Late Neolithic to replace the sense of fixed place that appears common in the Early Neolithic.

Glyphs therefore were primarily used by people to symbolise their membership of these groups. Whether this was to themselves, to other people, amuletically or talismanically, providing an identity was the main purpose of glyphs. However, it is clear that in the frequently performance-based ritual of the Late Neolithic, glyphs served as powerful symbols which could be used within rituals and project their power, as demonstrated by the evidence of sealing practices.

This book has explicitly focused on glyphs almost to the exclusion of other types of Late Neolithic material culture; this was deliberate but does mean that only part of the Late Neolithic has been discussed here. While glyphs do not seem to have been directly involved with much other material culture, the Late Neolithic is illuminated by a general elaboration of material culture, particularly in the Halaf. The prime example of this is the adoption of pottery as a mass product and the rise of elaborate pottery styles. Similarly, there is great diversity in objects such as beads, stone bowls or figurines which increases over the Late Neolithic. Why there is this elaboration and how it all interrelates is still an area where additional research would be useful, particularly as, relatively speaking, there are not many discrete object categories in the Late Neolithic – for example the Late Neolithic does not have many amulets. Mallowan suggested that the amulets at Arpachiyah were used as seals, but the literature now discusses seals and jewellery from Arpachiyah without mentioning amulets (cf. Campbell 2000). The world we have constructed for Late Neolithic objects is limited and there is little sub-division of many object types. Possibly some of the apparent elaboration within what we have classed as one type of object should be recognised as multiple object types or objects with multiple types.

Glyphs outlast the Late Neolithic, and while I have argued that sealing was only one of the uses for Later Neolithic glyphs it is the use that, at least as we interpret them, goes on to be most influential in later periods. Throughout the history of the Middle East there seem to have been multiple types of object termed 'seals' without much evidence of sealing practices.

The paramount example of this is 'Jemdet Nasr' (late 4th millennium BC) type stamp glyphs which have very distinctive drilled motifs and are often carved in the shape of an animal (**Fig. 38**). There is no evidence of their use for sealing, and late 4th millennium BC impressions on sealings and tablets are of a different style (Matthews 1992a, 19). Matthews (1992a, 19) suggests the Jemdet Nasr stamp glyphs

may be amulets or badges of office. As with Late Neolithic glyphs, while previous interpretations are recognised to be lacking (Matthews 1992a, 1992b), no attempt has been made to address this gap.

The evidence for Late Neolithic glyphs suggests they could be used as seals, amulets, talismans or any multitude of other uses depending on context. This is the advantage of the term 'glyph' over that of 'seal'; seal will always be a primarily functional term, while glyph, despite connotations of language, works well because of the association with symbols. Glyphs or seals are not inherently any one thing and all are likely to have had multiple purposes depending on context. While this could be for sealing, it could also be for the amuletic, talismanic or ideological uses. The specific definition is unimportant; the key point is moving from a functional to a social or typological definition. This change removes much of the value judgements implicit in traditional definitions of seals leading to the recognition that glyphs are not inherently administrative nor inherently for creating impressions.

The Late Neolithic is a fascinating period but many fundamental questions remain as it is so archaeologically ambiguous and for a long time pigeonholed as a transitionary one between the Early Neolithic and the Late Chalcolithic. As more data is gathered and older evidence reinterpreted we will get closer to arguments that begin to explain the multiplicity of the Late Neolithic. I hope this book will help advance the state of knowledge by showing how glyphs worked as part of a stable, shared symbolic system across Upper Mesopotamia and throughout the Late Neolithic working as symbols that linked the otherwise diverse societies of the Late Neolithic.

Figure 38 'Jemdet Nasr' type glyph from Tell Brak (BM, 1939,0208.46)

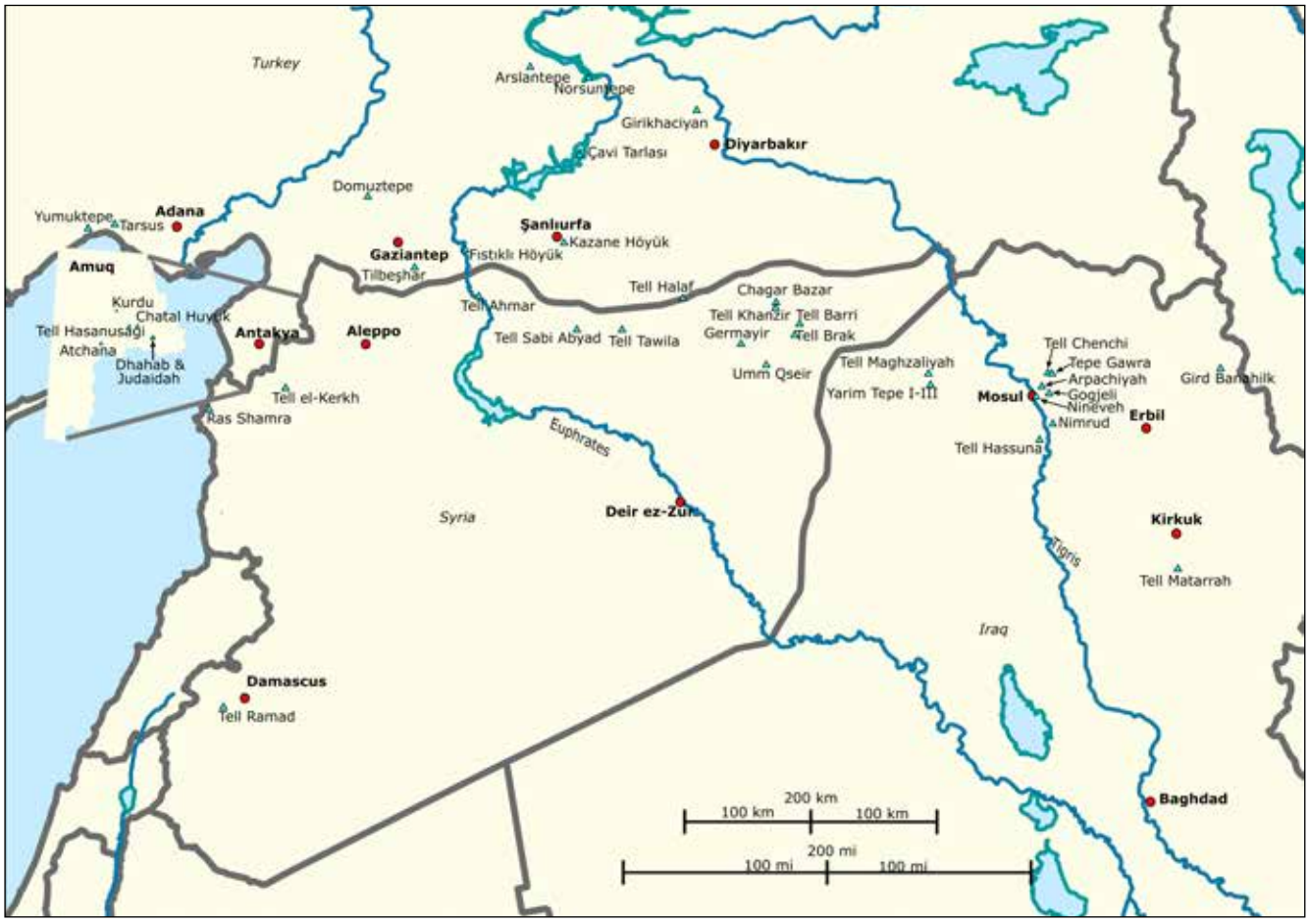
Catalogue

Introduction

This catalogue covers 164 glyphs and impressed objects from the British Museum's collection, including all the provenanced Late Neolithic and Early Chalcolithic glyphs from the Middle East. Only seemingly provenanced glyphs have been included; most were excavated/found and the rest were purchased at or near sites. The catalogue is divided into two sections, Late Neolithic and Chalcolithic. Within these groupings glyphs are arranged alphabetically by findspot with a brief description of the site. If the site has objects from both periods, the site description has only been provided in the Late Neolithic section.

All catalogue entries take the same form and record the museum number; the excavation number (if known); the site; the context; how it was acquired; the dimensions; the weight; and the material. Entries for glyphs have fields for shape and design while impressed objects have ones for impressed object type, number of impressions and impression shape and design. Context is divided into two parts, the first gives the quality of the provenance and is either 'primary' (e.g. Cat. 2) if it is from a clear archaeological context, 'secondary' (e.g. Cat. 3) if it is from the site but has no clear archaeological context, and 'tertiary' (e.g. Cat. 46) for when it is not certain whether the glyph is from the site. The second part records what contextual information is available. In the parallels and remarks section all parallels are recorded by their field or museum number when available and an arbitrary number when not. The first concordance lists catalogue number against British Museum number; the second lists British

Figure 39 Map showing sites in Syria, Turkey and northern Iraq (drawn by the author)



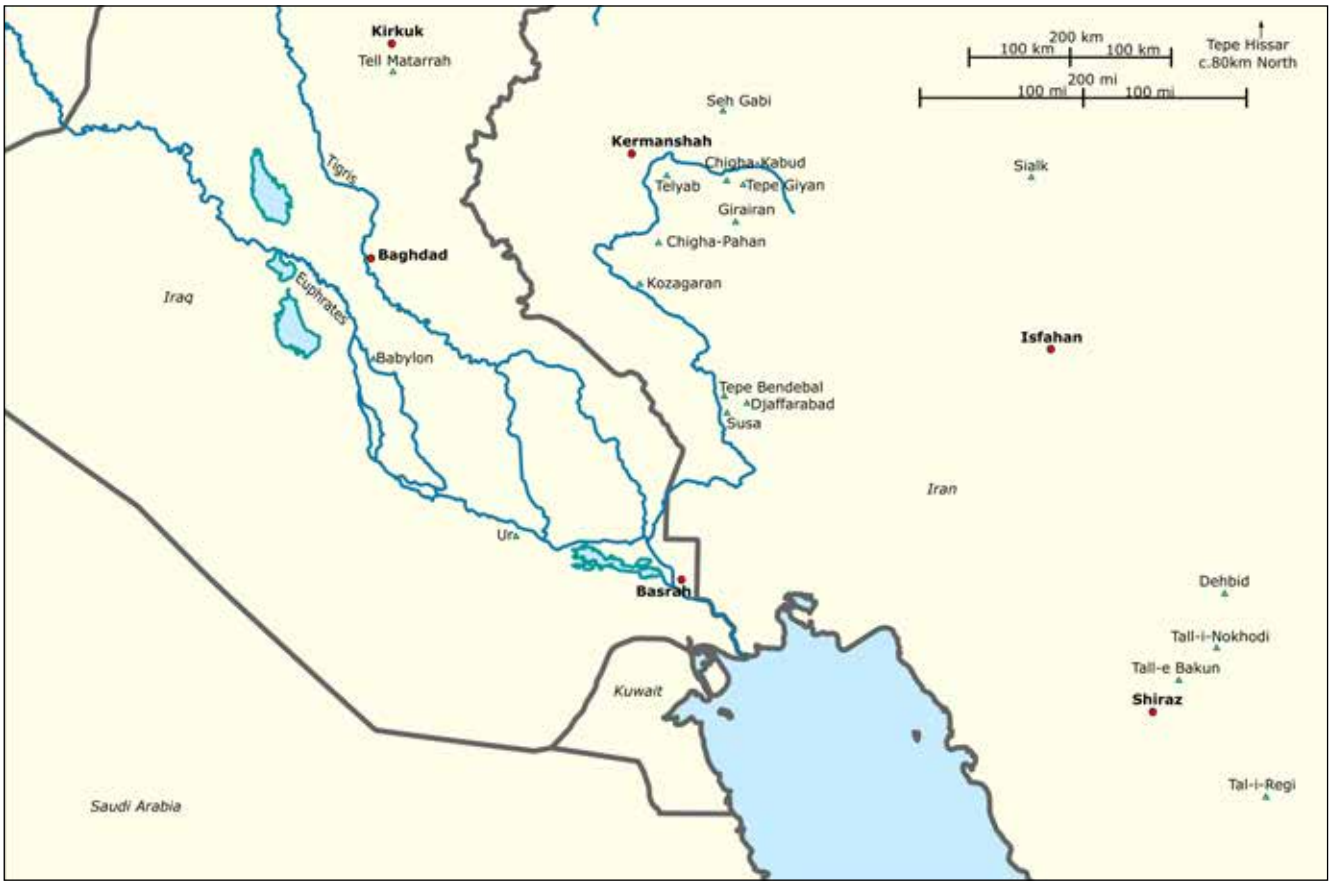


Figure 40 Map showing sites in southern Iraq and Iran (drawn by the author)

Museum number against catalogue number; and the third provides references for the parallels in the catalogue entries not in the British Museum's collection.

Figures 39–40 show all sites mentioned in the catalogue.

Late Neolithic glyphs and impressed sealings

The British Museum's collection of Late Neolithic glyphs and impressed sealings is one of the largest in the world. This is in large part due to the pioneering work conducted by Max Mallowan in the 1930s with excavations at Arpachiyah and in the Khabur that account for 79 of the 92 objects in this section. Mallowan's team are also responsible for a pair of glyphs from Nimrud. Beyond Mallowan there are small groups of glyphs acquired from David George Hogarth, Leonard Woolley and, indirectly, Max von Oppenheim.

Tell Ahmar (36°40'27.6"N 38°07'14.7"E)

Tell Ahmar (Til Barsip) is a large tell site on the Euphrates in northern Syria. It was inhabited from the Neolithic until well into the Iron Age and has been excavated in a project directed by Guy Bunnens (e.g. Bunnens 2003). The site was visited by David George Hogarth (1910, 173–5) who acquired a collection of objects there. Only one of them is of interest to this catalogue.

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1. 1908,0613.55
Excavation no: none
Site: Tell Ahmar
Context: secondary
Acquisition: collected by David George Hogarth
Dimensions: 31.0 x 24.1 x 13.9mm (broken)
Weight: 9g
Material: stone
Shape: trapezoid stamp glyph with ridged profile
Design: quadrilateral cross-hatching
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: This glyph has a common profile and design with a somewhat unusual face shape. However, the object is damaged and as with the glyphs from Tilbeşar may have seen extensive post-depositional use leaving it in its present face shape. It has strong parallels with a number of Late Neolithic glyphs, for examples ones from Chagar Bazar (S.719), Domuztepe (dt-4749) and Atchana (A03-R1009).
Publications: unpublished

Tell Arpachiyah (36°22'39.0"N 43°12'40.7"E)

Arpachiyah is a small site now on the outskirts of Mosul. It was excavated by a team led by Max Mallowan (Mallowan and Rose 1935) in 1933 and Ismail Hijara (Hijara 1978; Hijara 1997) in 1976. The Museum's collection from this site derive from Mallowan's excavation. Most famous for very high quality objects, Arpachiyah has been the de facto type

site of the Halaf culture, in particular the emphasis given to finely decorated pottery, glyphs, tholoi and figurines in the Halaf derives from Arpachiyah. There is only limited contextual information for many of the objects and scant records of most of the trenches. The exception to this is the 'Burnt House', a burnt context very rich in material culture that has variously been interpreted as a chiefly dwelling, a potter or stoneworker's house, or most recently a ritual deposit (see discussion in Campbell 2000 and pp. 35–7 in this volume).

The material from Mallowan's excavation was predominantly divided between the Iraq Museum, the British Museum and the Institute of Archaeology, UCL (IOA). Parallels are drawn with seals from all three collections and IOA ones have numbers in the form 53/432 and the Iraq Museum B14000.

A brief summary is not otherwise available of the trenches; the details below come from the archival material from Mallowan's excavation stored in the British Museum. See Campbell (2000) for a map showing probable locations within the site.

- **TT 1 – 10**, **AK**. Top of Tepe 1–10 recorded the main sequence in the centre of the mound. It was also occasionally referred to as AK (Akropolis). TT 1–4 are generally Ubaid levels, TT 5 is a mixed layer of discontinuous Ubaid and Halaf material, while TT 6–10 are Halaf levels. TT 6 is also the location of the 'Burnt House'. TT 4 Well is a Halaf-period well that was backfilled in the Ubaid. TT Platform 6–7 is unclear with no mention of a platform in the reports but the artefact can be assumed to be either immediately below or part of TT 6.
- **Trench C**. Poorly recorded but contained stone roads which are Halaf and something Mallowan calls a 'tholos ossuary'. Surface finds appear to have been largely Ubaid but it is likely contemporaneous with TT 5 as a mixed Halaf and Ubaid area.
- **Trench D**. This was recorded to contain predominately Halaf burials and occupation, but there is very little information from the first 2.5m where there is mention of Ubaid or Uruk pottery.
- **Trench E** and **Trench E – W(est) extension**. Little detail but Halaf period bread ovens and burials are mentioned.
- **Trench F**. An area of Ubaid graves cut into Halaf levels to the west of area C on the western edge of the mount. The top metre or so consisted of disturbed material containing mostly Ubaid pottery.
- **Trench FN**. Presumably a north extension of Trench F.
- **Trench G**. No details except two bowls found at -1.1m. All the objects reported as coming from G appear to be Ubaid suggesting an Ubaid occupation area.
- **Trench J**. Nothing is known about Trench J.
- **Trench JK**. No contextual information is available about Trench JK except that it contained a grave at -2.75m which is interpreted as Halaf.

2. 1934,0210.336
Excavation no: A. 43
Site: Arpachiyah
Context: primary, 'Burnt House'
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 15.6 x 15.3 x 8.7mm (complete)
Weight: 2g
Material: baked clay
Shape: triangular pendant glyph with wedge profile
Design: quadrilateral cross-hatching
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: This pendant glyph is unusual for its material – clay – and its simple design. The shape is common but many cross-hatched examples have more lines although parallels do exist (e.g. one from Domuztepe (dt-719)). The drilled dots are also unusual.
Publications: Mallowan and Rose 1935, pl. VIII(a) and fig. 50. 12; Von Wickede 1990, pp. 290–1 no. 142

3. 1934,0210.337
Excavation no: A. 47
Site: Arpachiyah
Context: secondary, no specific context recorded
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 14.2 x 17.9 x 5.8mm (complete)
Weight: 1g
Material: steatite
Shape: shield pendant glyph with wedge profile
Design: centralising lines with central cross
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: The design and shape are both common with a very close parallel from Tepe Gawra (G7-23). The colour and material are unusual but a glyph from Domuztepe (dt-6588) looks to be made of a very similar stone.
Publications: Mallowan and Rose 1935, pl. VIII(a) and fig. 50. 6; Von Wickede 1990, p. 289 no. 99

4. 1934,0210.338
Excavation no: A. 553
Site: Arpachiyah
Context: primary, Halaf material around Ubaid graves ('FN. -3.50m close to tomb')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 19.3 x 22.4 x 8.8mm (broken)
Weight: 2g
Material: stone
Shape: triangular pendant glyph with wedge profile
Design: framed cross-hatching
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: Framed cross-hatching is found across the Late Neolithic but is never particularly common except at Arpachiyah where six examples are known (only three are published here, the remainder are in the Iraq Museum). Similar examples to this one can be found at Tepe Gawra (G6-457, G7-203), Domuztepe (dt-3859) and Tell Tawila (TAW 06 C 69) from around the same period.
Publications: Mallowan and Rose 1935, pl. VIII(a); Von Wickede 1990, p. 289 no. 87

5. 1934,0210.339
Excavation no: A. 551
Site: Arpachiyah
Context: primary, Halaf context ('T.T. Trenches W. Side')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 19.1 x 16.0 x 6.8mm (complete)
Weight: 2g
Material: stone
Shape: oval pendant glyph with wedge profile
Design: framed cross-hatching
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: This glyph is similar to Cat. 4 and the same comments apply.
Publications: Mallowan and Rose 1935, pl. VIII(a); Von Wickede 1990, p. 289 no. 85

6. 1934,0210.340
Excavation no: A. 552
Site: Arpachiyah
Context: primary, Halaf material around Ubaid graves ('F. -1.6.')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 29.1 x 16.0 x 6.8mm (complete)
Weight: 5g
Material: stone
Shape: triangular pendant glyph with flat profile
Design: framed cross-hatching
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: This glyph is quite similar to Cat. 4 and the same general comments apply although the red material is fairly rare. The triangular shape is more right-angled then many others and interestingly right-angled triangular glyphs are only so far known from Arpachiyah (i.e. 53/458 or 53/441).
Publications: Mallowan and Rose 1935, pl. VIII(a); Von Wickede 1990, p. 289 no. 86

7. 1934,0210.341
Excavation no: A. 581
Site: Arpachiyah
Context: secondary, T.T.7 directly underlies T.T.6 the layer of the 'Burnt House'
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 26.7 x 20.4 x 7.4mm (complete)
Weight: 6g
Material: stone
Shape: trapezoid pendant glyph with flat profile
Design: divided, cross-hatching
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: The design and shape of this glyph is quite unusual. The cross-hatched paneling is cut much lighter than the parallel lines, only one similar example is known from Tepe Gawra (G7-321). The trapezoid shape is also unusual in a pendant glyph with again only one other example known, another glyph from Arpachiyah (B15017).
Publications: Mallowan and Rose 1935, pl. VIII(a) and fig. 50. 10; Von Wickede 1990, p. 291 no. 145

8. 1934,0210.342
Excavation no: A. 39
Site: Arpachiyah
Context: primary, Halaf material around Ubaid graves ('F. -2.5')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 19.9 x 11.3 x 6.1mm (complete)
Weight: 1g
Material: stone
Shape: pear pendant glyph with naturalistic profile
Design: triangular cross-hatching
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: The most interesting feature is its profile and reverse which resembles a shell making it the only known Late Neolithic glyph with a maritime-based profile/reverse. The vast majority of Late Neolithic and Chalcolithic glyphs have undecorated reverses making it difficult to contextualise this glyph, particularly as otherwise the design and shape are quite common.
Publications: Mallowan and Rose 1935, pl. VIII(a) and fig. 51.2; Von Wickede 1990, p. 289 no. 88

9. 1934,0210.344
Excavation no: A. 5
Site: Arpachiyah
Context: secondary, Halaf and Ubaid mixed material ('-2.5m C')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 17.2 x 11.7 x 7.5mm (complete)
Weight: 1.5g
Material: stone
Shape: pear pendant glyph with wedge profile
Design: framed cross-hatching
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: The form of this glyph matches many at Arpachiyah and the same comments apply. The design is more unusual however with a single central band of triangular quadrilateral cross-hatching framed by hashed lines. There are no exact parallels but glyphs with similar designs, though involving at least two bands of cross-hatching, are found including another glyph from Arpachiyah (B14994) as well as glyphs from Tell Tawila (TAW 06 C 69), Judaidah (x3205) and Tell el-Kerkh (EK-047).
Publications: Mallowan and Rose 1935, pl. VIII(a) and fig. 50. 2; Von Wickede 1990, p. 289 no. 95

10. 1934,0210.345
Excavation no: A. 41
Site: Arpachiyah
Context: primary, Halaf context ('T.T. Platform 6-7. S. side')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 20.0 x 14.4 x 5.5mm (complete)
Weight: 1.5g
Material: stone
Shape: pear pendant glyph with wedge profile
Design: irregular cross-hatching?
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: The shape of this glyph is typical for Arpachiyah but the design is fragmentary. Around the bottom edge of the glyph cross-hatching is visible. There is also a series of four faint lines at the top left (the deepest two of which are visible on the image) which could be the traces of a removed design. Two much deeper lines have also been engraved although they do not cut the cross-hatching; the suspension has a fresh break but the notch at the top suggests it was in use before it broke. This suggests three alternatives. Firstly that the glyph was destroyed with the design being erased and defaced with the suspension broken; secondly that the suspension broke and then the object was defaced; or thirdly that the suspension broke but the design looks as it was intended.
Publications: Mallowan and Rose 1935, pl. VIII(a)

11. 1934,0210.346
Excavation no: A. 42
Site: Arpachiyah
Context: secondary, Arpachiyah TT
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 20.1 x 13.5 x 9.2mm (complete)
Weight: 2.5g
Material: stone
Shape: pear pendant glyph with wedge profile
Design: centralising lines
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: This glyph has a common wedged pear shape but the addition of the dots in the otherwise typical design is unusual. However it does have parallels from Tepe Gawra (G4-875, G6-495) and somewhat more indirectly (in type of design) to Tell el-Kerkh (EK-065 and EK-038).
Publications: Mallowan and Rose 1935, pl. VIII(a); Von Wickede 1990, p. 288 no. 84

12. 1934,0210.347
Excavation no: A. 892
Site: Arpachiyah
Context: primary, 'Burnt House'
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 16.1 x 13.5 x 6.9mm (complete)
Weight: 1.5g
Material: stone
Shape: pear pendant glyph with wedge profile
Design: centralising lines
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: The form of this glyph is typical and the design is generally a common one with parallels at Tell Brak (Cat. 55), Domuztepe (dt-875), Tell el-Kerkh (AK97-Reg.61), Fıstıklı Höyük (FK-007), Tepe Gawra (G7-23) and Yarim Tepe II (YT-026).
Publications: Von Wickede 1990, p. 289 no. 102

13. 1934,0210.348
Excavation no: A. 868
Site: Arpachiyah
Context: primary, 'Burnt House'
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 15.8 x 12.3 x 4.6mm (complete)
Weight: 1g
Material: stone
Shape: shield pendant glyph with wedge profile
Design: quadrilateral cross-hatching
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: While the specific form is more pronounced then other shield examples from Arpachiyah (Cat. 3, B15025) it otherwise had a very common design. Most interestingly this glyph has been actively defaced with the striations on the face clearly visible in the image. As the design is such a common one and the defacement does not completely obscure the original design, this presumably represents an attempt to destroy the totality of the object.
Publications: Mallowan and Rose 1935, pl. VII(b) and fig. 51.12 (incorrectly marked as A.874); Von Wickede 1990, p. 291 no. 149

14. 1934,0210.349
Excavation no: A. 6
Site: Arpachiyah
Context: secondary
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 16.6 x 10.0 x 7.7mm (complete)
Weight: 1.5g
Material: steatite
Shape: pear pendant glyph with pear profile
Design: centralising square and lines
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: The profile of this object is unusual as few pendant glyphs are wider at the bottom then the top with no exact parallels. The face and design are much more common, but interestingly the square and lines design with radiating squares around a central cross is more common on stamp glyphs than pendant glyphs, though pendant parallels do exist, such as from Yarim Tepe II (YT-022) and Tell Halaf (HF-007). Stamp parallels are more common, see for example glyphs from Domuztepe (dt-3858), Tell el-Kerkh (EK-055) or Judaidah (x3776).
Publications: Mallowan and Rose 1935, pl. VIII(a) and pl. VI(a) and fig. 50.1 (incorrectly marked as 16 on pl. VI); Von Wickede 1990, p. 289 no. 94

15. 1934,0210.350
Excavation no: A. 4
Site: Arpachiyah
Context: secondary, surface find ('Akropolis (AK), West-Central, surface. Pre-Al-Ubaid level')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 15.2 x 11.1 x 6.3mm (complete)
Weight: 1g
Material: stone
Shape: pear pendant glyph with wedge profile
Design: centralising square and lines
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: see discussion in Cat. 14. The profile is more typical of glyphs at Arpachiyah (e.g. Cat. 17).
Publications: Mallowan and Rose 1935, pl. VIII(a) and fig. 50.3; Von Wickede 1990, p. 289 no. 96

16. 1934,0210.351
Excavation no: A. 874
Site: Arpachiyah
Context: primary, 'Burnt House'
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 12.3 x 9.3 x 6.3mm (complete)
Weight: 0.5g
Material: stone
Shape: pear pendant glyph with wedge profile
Design: centralising square and lines
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: see discussion in Cat. 14
Publications: Mallowan and Rose 1935, pl. VII(b) (incorrectly marked as A.868); Von Wickede 1990, p. 289 no. 100

17. 1934,0210.352
Excavation no: A. 40
Site: Arpachiyah
Context: secondary
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 15.3 x 10.8 x 5.0mm (complete)
Weight: 0.5g
Material: stone
Shape: shield pendant glyph with wedge profile
Design: irregular
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: While the form of this object is typical for Arpachiyah, the design is unclear. It consists of a general series of hashed lines around the perimeter of the glyph and then a couple of other lines. It does not fit into any of the existing glyph design categories. See discussion in Cat. 90 regarding the material.
Publications: Mallowan and Rose 1935, pl. VIII(a); Von Wickede 1990, p. 289 no. 101

18. 1934,0210.353
Excavation no: A. 14
Site: Arpachiyah
Context: secondary
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 13.5 x 11.8 x 6.3mm (complete)
Weight: 2g
Material: stone
Shape: irregular pendant glyph with flat profile
Design: quadrilateral cross-hatching
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: There is damage to this glyph's suspension, the trace of which is preserved at the top. There is also damage at the bottom left, and the cut marks visible towards the bottom of the profile suggest it was not originally

symmetrical. There are essentially no parallels to the form except possibly a pendant glyph that appears to be humanoid from Umm Qseir (UQ-005). The design is a form of quadrilateral cross-hatching, but has fewer diagonal lines than is common forming a mixture of triangular and trapezoid shapes.
Publications: Mallowan and Rose 1935, pl. VIII(a) and fig. 50. 22

19. 1934,0210.354
Excavation no: A. 896
Site: Arpachiyah
Context: secondary, Halaf and Ubaid mixed material ('C.-3.10m. Bottom of tholos')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 11.1 x 9.2 x 8.0mm (broken)
Weight: 0.5 g
Material: calcite
Shape: oval stamp glyph with triangle profile
Design: divided lines
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: This object has a standard form and design. The form has parallels from Tell el-Kerkh (EK-080) and Tepe Gawra (G7-185) while the design has quite a number of parallels such as from Tell el-Kerkh (EK-080, EK-044) and Kurdu (TK 3097). There may be loss of design around the edge of the object, as the edges are lower than the rest of the object.
Publications: Von Wickede 1990, p. 289 no. 104

20. 1934,0210.355
Excavation no: A. 867
Site: Arpachiyah
Context: primary, 'Burnt House'
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 13.4 x 10.6 x 3.7mm (complete)
Weight: 0.5g
Material: stone
Shape: sickle pendant glyph with flat profile
Design: irregular lines
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: This unusual object is similar in form to a number of other glyphs from Arpachiyah (see Cat. 22, Cat. 23 and B15008) which have little in the way of wider parallels with the exception of two objects from Umm Qseir (UQ-003, UQ-004). The design of this object is also unclear with no regularity discernable in the engraved lines. It is possible the object was longer as the stone is rougher at the end without the suspension.
Publications: Mallowan and Rose 1935, pl. VII(b) and fig. 51.11; Von Wickede 1990, p. 291 no. 154

21. 1934,0210.356
Excavation no: A. 584
Site: Arpachiyah
Context: primary, T.T. 7 ('T.T.6 under house, outside tholos') (there is no tholos in T.T.6)
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 21.4 x 10.0 x 5.9mm (broken)
Weight: 1g
Material: stone
Shape: diamond stamp glyph with flat profile
Design: divided lines
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: There are no good parallels to the form of this glyph; from the face it resembles a pendant glyph with a raised eyelet, but is a stamp based on the relative suspension. The design is unusual and the horizontal lines are very faint, possibly worn down or designed as ephermeral, it has only limited parallels but is comparable to another glyph from Arpachiyah (53/438) and thematically similar to a glyph from Tell Sabi Abyad (Z07-01).
Publications: Mallowan and Rose 1935, pl. VII(a) and fig. 50. 23; Von Wickede 1990, p. 292 no. 169

22. 1934,0210.357
Excavation no: A. 881
Site: Arpachiyah
Context: secondary, Halaf and Ubaid mixed material ('T.T. 5')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 30.8 x 11.9 x 4.4mm (complete)
Weight: 2g
Material: stone
Shape: sickle pendant glyph with flat profile
Design: irregular
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: As with Cat. 20, this object has an unusual form and design. The design has areas of cross-hatching, banded lines and metered units and does not fit any of the categories used in this catalogue. This object was almost certainly longer as there is a significant area of rougher stone at the end of the object without the suspension.
Publications: Mallowan and Rose 1935, pl. VII(b) and fig. 50. 26; Von Wickede 1990, p. 291 no. 156

23. 1934,0210.358
Excavation no: A. 882
Site: Arpachiyah
Context: secondary, Halaf and Ubaid mixed material ('-0-1m F')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 26.6 x 10.5 x 5.8mm (complete)
Weight: 1g
Material: stone
Shape: sickle pendant glyph with wedge profile
Design: divided lines
Phase: Early Ubaid, dating *c.* 5000–4600 BC
Parallels and remarks: This glyph has an unusual form, see Cat. 20 for parallels. This one is even more atypical for its notched edge. There is only one parallel to this: a glyph from Yarim Tepe (YT-012) which also has a loosely similar form and design. This glyph is also like one from Umm Qseir (UQ-004) sharing the same design and pronounced eyelet, although the Umm Qseir example does not have the teeth.
Publications: Mallowan and Rose 1935, pl. VII(b) and fig. 50. 27; Von Wickede 1990, p. 289 no. 89

24. 1934,0210.367
Excavation no: A. 15
Site: Arpachiyah
Context: secondary
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 22.0 x 23.2 x 14.8mm (complete)
Weight: 8.5g
Material: stone
Shape: circular stamp glyph with cone profile
Design: centralising lines
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: The form of this glyph is relatively common with parallels, for example, from Domuztepe (dt-4698) and Tell el-Kerkh (EK-055). The remaining design is very unclear; it appears to have been largely erased but may once have been cross-hatching of some form, traces of which are just visible at the top of the picture. After this design was erased a cross has been engraved with aligned lines in three of the quadrants. Whether this is the defacing of a design, or an attempt to re-carve the glyph is unclear; given the relative crudeness of the cross and aligned lines it would seem likely that this glyph has had its design erased and then defaced.
Publications: Mallowan and Rose 1935, pl. VIII(a) and fig. 50.21; Von Wickede 1990, p. 293 no. 198

25. 1934,0210.368
Excavation no: A. 866
Site: Arpachiyah
Context: primary, 'Burnt House'
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 27.0 x 26.8 x 7.6mm (complete)
Weight: 4.5g
Material: stone
Shape: circular stamp glyph with flat profile
Design: none

Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: This object may not be a glyph. The face displays no trace of a design but looks to have been prepared and striations are visible across the surface suggesting either that a design has been ground down or not yet added. The reverse and profile have similar striations however so it may just be unfinished.
Publications: Mallowan and Rose 1935, pl. VII(b)

26. 1934,0210.369
Excavation no: A. 561
Site: Arpachiyah
Context: primary, Halaf context ('-5 m JK')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 28.8 x 22.9 x 12.6mm (broken)
Weight: 7g
Material: stone
Shape: circular stamp glyph with flat profile
Design: triangular cross-hatching
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: The form and general design of this glyph is common, however the constitution of the triangular quadrilateral cross-hatching is rare; most triangular quadrilaterals are made with two square grids at 45 degree angles whereas this one is 'true' triangular with a hexagonal base. It has general parallels at Judaidah (JD-015), Domuztepe (dt-1821) and Kurdu (K4). The damage to the face appears fresh suggesting it was damaged shortly before deposition.
Publications: Mallowan and Rose 1935, pl. VII(a); Von Wickede 1990, p. 289 no. 90

27. 1934,0210.370
Excavation no: A. 36
Site: Arpachiyah
Context: secondary
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 19.5 x 20.6 x 6.9mm (broken)
Weight: 2.5g
Material: chlorite
Shape: circular stamp glyph with ridged profile
Design: quadrilateral cross-hatching
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: This heavily damaged glyph has damage to the face and active defacement of the rear suspension which appears to have been drilled in at least two places. It is possible that the suspension broke and the user wanted to keep using it so prepared to pierce the object through the centre, or alternatively someone wanted to make sure it could no longer be worn. Beyond that the form and design are both common with parallels from Judaidah (x4672), Banahilk (Bh-9) and Fıstıklı Höyük (FK-002). In contrast to Cat. 26 this glyph forms triangular quadrilaterals through overlaid square and diagonal grids. This is the more common method.
Publications: Mallowan and Rose 1935, pl. VII(a) and fig. 50. 17; Von Wickede 1990, p. 289 no. 93

28. 1934,0210.371
Excavation no: A. 566
Site: Arpachiyah
Context: primary, Halaf context ('1.7 m Arpachiyah E-W Extension')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 18.5 x 14.5 x 7.9mm (broken)
Weight: 1.5g
Material: stone
Shape: circular stamp glyph with flat profile
Design: irregular cross-hatching?
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: This glyph has had one third of the face and two thirds of the suspension snapped off. It has perhaps been broken deliberately to damage the efficacy of the glyph. The form is common but the design itself is unusual, resembling a combination of quadrilateral cross-hatching, most visible at the bottom and right with a design of centralising lines. Whether this is the combination of designs, the defacement of the design or something else is unclear. For form and general design see glyphs from Tepe Gawra (G7-176), Chatal Huyuk (a3285), Chagar Bazar (Cat. 64) and Kurdu (KU-010).
Publications: Mallowan and Rose 1935, pl. VII(a); Von Wickede 1990, p. 293 no. 203

29. 1934,0210.372
Excavation no: A. 564
Site: Arpachiyah
Context: secondary
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 17.1 x 17.5 x 10.0mm (complete)
Weight: 2g
Material: stone
Shape: circular stamp glyph with flat profile
Design: triangular cross-hatching
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: This object is similar in design and form to Cat. 26 and the same comments apply. The material however is quite unusual as it appears more sedimentary with larger inclusions which seems to be in a more fragmented state than many of the materials more commonly used. This has led to areas of loss on the face.
Publications: Mallowan and Rose 1935, pl. VII(a); Von Wickede 1990, p. 289 no. 89

30. 1934,0210.373
Excavation no: A. 565
Site: Arpachiyah
Context: primary, Halaf context ('-3m E-W Extension')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 13.4 x 13.6 x 8.6mm (complete)
Weight: 1.5g
Material: stone
Shape: circular stamp glyph with cone profile
Design: divided lines
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: This object is similar to a number of parallels in form, for example glyphs from Domuztepe (dt-4698), Tell el-Kerkh (EK-055), and design, Tepe Gawra (G7-339, G7-122) and Domuztepe (dt-1597) but unusually not parallels of both in one glyph. The design looks incomplete with empty spaces. This is relatively uncommon in Late Neolithic glyphs possibly suggesting the object is closer to some other glyphs with partial designs such as ones from Domuztepe (dt-4697), Dhahab (D44) or Judaidah (x5059).
Publications: Mallowan and Rose 1935, pl. VII(a); Von Wickede 1990, p. 293 no. 199

31. 1934,0210.374
Excavation no: A. 570
Site: Arpachiyah
Context: secondary
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 21.6 x 18.8 x 6.3mm (broken)
Weight: 2.5g
Material: limestone
Shape: rectangular stamp glyph with flat profile
Design: triangular cross-hatching
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: This interesting glyph has a somewhat cursory design but presumably quite a long use life having been re-pierced through the centre of the glyph after the reverse eyelet broke. This habit of re-drilling rectangular glyphs has a surprising number of parallels, see glyphs from Tell Hassuna (IM.50272), Judaidah (x3683), Kurdu (K47), Tell Matarrah (M-42), Fıstıklı Höyük (FK-006) and Domuztepe (dt-14), many of which have similar designs.
Publications: Mallowan and Rose 1935, pl. VII(a); Von Wickede 1990, p. 292 no. 190

32. 1934,0210.375
Excavation no: A. 562
Site: Arpachiyah
Context: primary, Halaf context ('J.-1.50m')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 24.3 x 23.8 x 14.4mm (complete)
Weight: 5.5g
Material: limestone
Shape: circular stamp glyph with ridged profile
Design: quadrilateral cross-hatching
Phase: Late Halaf, dating *c.* 5600–5400 BC
Parallels and remarks: This glyph is in poor condition and is likely a form of limestone that has degraded or been actively defaced. The form and design are both common with parallels, for example from Tell Sabi Abyad (Z88-5), Tell Hasanusagi (T3838b) and Çavi Tarlası (Ç. T. 83-43).
Publications: Mallowan and Rose 1935, pl. VII(a); Von Wickede 1990, p. 289 no. 91

33. 1934,0210.376
Excavation no: A. 30
Site: Arpachiyah
Context: secondary, surface find ('surface trench C')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 35.3 x 27.9 x 17.7mm (complete)
Weight: 11g
Material: baked clay
Shape: rectangular stamp glyph with ridged profile
Design: quadrilateral cross-hatching
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: The relatively basic style of this glyph is uncommon. There is a slight depression on the handle that suggests a perforation may have been started but not finished. It resembles a less regular version of a stone glyph. Larger clay glyphs are more common in the Pottery Neolithic suggesting this example may have been curated, though clay glyphs are found throughout the Late Neolithic.
Publications: Mallowan and Rose 1935, fig. 51.25

34. 1934,0210.377
Excavation no: unknown
Site: Arpachiyah
Context: tertiary, not recorded in small finds catalogue or published report
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 40.5 x 24.3 x 24.1mm (complete)
Weight: 17.0g
Material: baked clay
Shape: oval stamp glyph with dome profile
Design: centralising lines
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: No reference to this artefact has been found in the Arpachiyah small finds catalogue. Stylistically and morphologically it resembles a Pottery Neolithic glyph that has been curated. This is reinforced by a fairly close parallel to a late Pottery Neolithic glyph from Ras Shamra (RS.23.647). However as with Cat. 33 clay glyphs are not unique to the Pottery Neolithic.
Publications: unpublished

35. 1934,0210.378
Excavation no: A. 28
Site: Arpachiyah
Context: secondary, Halaf and Ubaid mixed material ('AK. Road B. Top metre')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 30.6 x 21.8 x 14.0mm (complete)
Weight: 6g
Material: baked clay
Shape: rectangular stamp glyph with ridged profile
Design: irregular cross-hatching or metered lines
Phase: Late Halaf or Early Ubaid, dating *c.* 5600–4500 BC
Parallels and remarks: This clay glyph was proposed by Mallowan to show a demon's face (Mallowan and Rose 1935, 97). The design is unusual because the horizontal lines are curved unlike regular cross-hatching but are more continuous then most divided designs. It has no near parallels in design although the form is not unusual and has parallels from Domuztepe (dt-4749) and Tell el-Kerkh (EK-062).
Publications: Mallowan and Rose 1935, fig. 51.24

36. 1934,0210.380
Excavation no: A. 615F
Site: Arpachiyah
Context: secondary, possibly TT terrace
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 18.9 x 21.5 x 5.6mm (broken)
Weight: 1.7g
Material: clay
Impressed object type: impressed sealing with broken string
Number of impressions: 1
Impression shape: circular
Impression design: framed cross-hatching
Phase: Halaf, dating *c.* 6000–5300 BC
Parallels and remarks: This impressed sealing is broken above the string mark and it is therefore unclear what its original type might have been. The singular impression is fairly clear and shows a framed triangular cross-hatched design.
Publications: von Wickede 1990, p. 287 and no. 73; Mallowan and Rose 1935, pl. IX(a)

37. 1934,0210.381
Excavation no: A. 618
Site: Arpachiyah
Context: secondary, likely T.T.5 ('-3m TT')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 29.3 x 15.4 x 13.4mm (complete)
Weight: 6g
Material: clay
Impressed object type: label
Number of impressions: four, same glyph.
Impression shape: circular
Impression design: quadrilateral cross-hatching
Phase: Halaf, dating *c.* 6000–5300 BC
Parallels and remarks: This impressed label is complete and has been impressed four times with the same glyph. The quadrilateral cross-hatched impressions are worn smooth suggesting this impression was handled regularly before deposition.
Publications: von Wickede 1990, p. 287 and no. 68; Mallowan and Rose 1935, pl. IX(a)

38. 1934,0210.383
Excavation no: A. 619J
Site: Arpachiyah
Context: primary, 'Burnt House'
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 64.2 x 29.5 x 29.0mm (complete)
Weight: 41.2g
Material: clay
Impressed object type: label
Number of impressions: 18, same glyph?
Impression shape: hand
Impression design: hand
Phase: Halaf, dating *c.* 6000–5300 BC
Parallels and remarks: This sealing is one of 16 from Arpachiyah with much the same hand-shaped, hand-design impression. Most of them are labels like this one and most have been impressed multiple times. The impressions tend to be quite worn or ephemeral making it unclear if it is the same glyph or a group of similar glyphs. The glyph shape and design are largely without parallel in the Late Neolithic, although there is another hand-shaped glyph from Domuztepe (dt-171). The British Museum has three of the 16; the current one, Cat. 39 and Cat. 42. The remainder are at the Institute of Archaeology in UCL (53/467 (x3), 53/1324 (x2), 53/1325) and the Iraq Museum (B15184 (x2), B15185 (x5).
Publications: von Wickede 1990, p. 287 and no. 31; Mallowan and Rose 1935, pl. IX(b)

39. 1934,0210.384
Excavation no: A. 619K
Site: Arpachiyah
Context: primary, 'Burnt House'
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 51.7 x 24.7 x 22.6mm (complete)
Weight: 41.2g
Material: clay
Impressed object type: label
Number of impressions: 10, same glyph?
Impression shape: hand
Impression design: hand
Phase: Halaf, dating *c.* 6000–5300 BC
Parallels and remarks: see Cat. 38
Publications: von Wickede 1990, p. 287 and no. 32; Mallowan and Rose 1935, pl. IX(b)

40. 1934,0210.385
Excavation no: A. 620G
Site: Arpachiyah
Context: primary, 'Burnt House'
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 47.3 x 33.4 x 13.4mm (complete)
Weight: 16.5g
Material: clay
Impressed object type: disk
Number of impressions: five, two glyphs
Impression shape 1: oval? Circular?
Impression shape 2: sickle
Impression design1: quadrilateral cross-hatching
Impression design 2: divided lines
Phase: Halaf, dating *c.* 6000–5300 BC
Parallels and remarks: This disk has impressions of two glyphs. The first is a loosely crescent or sickle shape with a series of visible lines (two on the right in the picture), which has parallels from Arpachiyah (Cat. 23) and Umm Qseir (UQ-004, UQ-006). The second appears oval and has the worn remnants of a quadrilateral cross-hatched design, with known parallels from Tell Kurdu (TK4260), Domuztepe (dt-4698) and Tell Sabi Abyad (Z93-4).
Publications: von Wickede 1990, p. 287 and no. 44; Mallowan and Rose 1935, pl. IX(b)

41. 1934,0210.386
Excavation no: A. 620H
Site: Arpachiyah
Context: primary, 'Burnt House'
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 41.7 x 38.4 x 15.2mm (complete)
Weight: 20g
Material: clay
Impressed object type: disk
Number of impressions: four, same glyph.
Impression shape: circular
Impression design: centralising lines
Phase: Halaf, dating *c.* 6000–5300 BC
Parallels and remarks: This impressed disk has four impressions of the same glyph on it. The impression shows a circular glyph with centralising lines around a central dot. Another sealing from Arpachiyah (B15104) may have been impressed with the same glyph. The design has parallels from Tell el-Kerkh (EK-038, EK-065) and Tepe Gawra (G3-270).
Publications: von Wickede 1990, p. 287 and no. 45; Mallowan and Rose 1935, pl. IX(b)

42. 1934,0210.389
Excavation no: A. 619L
Site: Arpachiyah
Context: primary, 'Burnt House'
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 56.7 x 28.5 x 27.0mm (complete)
Weight: 27g
Material: clay
Impressed object type: label
Number of impressions: eight, same glyph?
Impression shape: hand
Impression design: hand
Phase: Halaf, dating *c.* 6000–5300 BC
Parallels and remarks: see Cat. 38
Publications: von Wickede 1990, p. 287 and no. 33; Mallowan and Rose 1935, pl. IX(b)

Tell Atchana (36°14'15.6"N 36°23'05.4"E)
Tell Atchana, ancient Alalakh, is a large tell site in southern Turkey, east of Antakya. The site was first excavated by a team led by Leonard Woolley (1955) between 1937–9 and 1946–9. The three glyphs in this catalogue come from those excavations. Since the early 2000s the site has been excavated by a team led by Aslıhan Yener (e.g. Aslihan Yener 2010). It is mostly known as a Bronze Age site and all three glyphs here were excavated in Bronze Age contexts, presumably showing the secondary reuse of Late Neolithic objects.

43. 1938,0108.123
Excavation no: AT/37/31
Site: Atchana
Context: secondary
Acquisition: excavated by a team led by Leonard Woolley
Dimensions: 14.8 x 14.9 x 7.1mm (complete)
Weight: 2g
Material: chlorite
Shape: square stamp glyph with bowled profile
Design: centralising quadrants
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: This object has a bowled face and reflected quadrants design which is relatively uncommon in Mesopotamia and more generally associated with Iranian 5th-millennium BC glyphs (see Tepe Giyan in the next section). Similar glyphs are known from sites such as Çavi Tarlası (Ç. T. 83-43), Tell Hassuna (IM.50271) and Judaidah (x2637). The closest parallel is a glyph from Domuztepe (dt-3941) which has the same shape and a similar design while a glyph from Tell Kurdu (K19) is also comparable. The example from Kurdu is Early Ubaid while the Domuztepe glyph is Halaf, suggesting this object could date from any part of the Late Neolithic.
Publications: Woolley 1955, 268 and no. 172

44. 1938,0108.132
Excavation no: AT/37/136
Site: Atchana
Context: secondary
Acquisition: excavated by a team led by Leonard Woolley
Dimensions: 33.4 x 31.9 x 8.4mm (complete)
Weight: 14g
Material: stone
Shape: circular stamp glyph with flat profile
Design: centralising chevrons
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: This glyph shows heavy evidence of wear around the suspension on the reverse of the glyph; it is unclear if the central piercing is original or a later adaptation. Evidence on the reverse of the glyph suggests a

new suspension was attempted (visible in the middle of the profile picture), which was not completed. A very close parallel to this glyph is known from Tell Maghzaliyah (MY-001) which is also circular, with a central piercing and chevron design.
Publications: Woolley 1955, 268 and no. 170

45. 1951,0103.47
Excavation no: AT/37/30
Site: Atchana
Context: secondary
Acquisition: excavated by a team led by Leonard Woolley
Dimensions: 30.6 x 27.7 x 13.1mm (complete)
Weight: 12.5g
Material: chlorite
Shape: triangular stamp glyph with ridged profile
Design: quadrilateral cross-hatching
Phase: Late Neolithic, dating *c.* 7000–6000 BC
Parallels and remarks: The form of this glyph is somewhat irregular and it may originally have been more oval as there are patches that look to have been worn down. The design is quite common and the slightly bulkier overall form suggests it dates to the Pottery Neolithic with parallels from Tell el-Kerkh (AK99-Reg.20), Judaidah (x4951, x5000) and Tell Sabi Abyad (Z99-3), and Tell Hasanusagi (T3838a).
Publications: Woolley 1955, 268 and no. 166

Babylon (32°32'11.0"N 44°25'15.0"E)
The site of Babylon in common with the rest of South Mesopotamia has little in the way of Neolithic levels. A singular glyph from the site has close Late Neolithic parallels and was found during the excavations directed by Hormuzd Rassam. There is no find spot information and as such the attribution to Babylon itself is uncertain. It is possible that it was found in a secondary reuse context having been uncovered in antiquity during construction at the site or it may have been brought in from elsewhere.

46. 1881,1103.1924
Excavation no: unknown
Site: Babylon
Context: tertiary
Acquisition: excavated by a team led by Hormuzd Rassam
Dimensions: 16.2 x 6.3 x 18.0mm (complete)
Weight: 3g
Material: stone
Shape: rectangular stamp glyph with blunt cone profile
Design: divided lines
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: The form and design have loose parallels in a number of sites such as Domuztepe (dt-3957), Tell el-Kerkh (EK-058) and a very close Pottery Neolithic parallel from Yumuktepe (R.N. 1834). Without Neolithic or Chalcolithic levels at Babylon however it is hard to know any potential implications of this glyph and it has been included solely on the basis of the parallel from Yumuktepe.
Publications: unpublished

Tell Barri (36°44'21.0"N 41°07'38.0"E)
Tell Barri is a large tell site in north-east Syria about six miles to the north-east of Tell Brak located on the Wadi Jaghjagh, a tributary of the Khabur. It was occupied from at least the Halaf period into the Islamic era, and was excavated by an Italian-led team from 1980. The glyph here from Tell Barri was collected by Mallowan on his survey of the Khabur in 1934. Whether it was bought at the site or bought by someone who said it was from Tell Barri is not recorded and, as with the glyphs in the section on the Khabur below, can only be assigned a tertiary context.

47. 1936,1216.173
Excavation no: A. 936
Site: Tell Barri
Context: tertiary
Acquisition: purchased by Max Mallowan
Dimensions: 14.6 x 6.7 x 10.6mm (complete)
Weight: 0.5g
Material: stone
Shape: naturalistic stamp glyph with boot-shaped profile
Design: naturalistic human foot
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: This very interesting glyph is in the form of a human foot with the lines on the face resembling lines on a foot. It is unfortunate it does not have a better context as it cannot be proven to be a Halaf glyph from Tell Barri, although glyphs of a similar shape, albeit not with the explicitly naturalistic nature, are known from

several sites such as Tell Arpachiyah (53/480), Domuztepe (dt-4746), Tell Ramad (R. 73.3) or Yumuktepe (07-34-24). There are also hand-shaped glyphs known from Tell Arpachiyah (e.g. Cat. 38) and Domuztepe (dt-171). The nature of the carving is similar to the techniques used in the Late Neolithic but without a clearer context or more direct parallels this glyph is interesting, but essentially unique.
Publications: unpublished, though referenced in Mallowan's excavation notes stored at the British Museum

Tell Brak (36°40'02.0"N 41°03'30.0"E)
Tell Brak is a large tell site in north-east Syria in the Khabur valley. It was first excavated by a team led by Max Mallowan in 1937 and 1938. The objects in this catalogue derive from that excavation, but the site has been extensively excavated since then beginning in 1976 by a team directed by David and Joan Oates. These later excavations have greatly enhanced our understanding of Tell Brak but while the site is known to have been occupied since at least the Halaf (Ur, Karsgaard and Oates 2011, 4) very little Halaf and Ubaid material has been excavated. Mallowan found large numbers of glyphs and other smaller objects in looters' tunnels underneath the 'eye temple', meaning many of the objects have little to none stratigraphic control.

48. 1937,1211.56
Excavation no: unknown
Site: Tell Brak
Context: tertiary
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 21.7 x 8.8 x 5.9mm (complete)
Weight: 1g
Material: stone
Shape: rectangular pendant glyph with wedge profile
Design: quadrilateral cross-hatching
Phase: Halaf or Early Ubaid
Parallels and remarks: This object is a typical Late Neolithic pendant glyph. The quadrilateral cross-hatched design and the very explicit eyelet above a sub-rectangular body are not hugely common but it has parallels from Arpachiyah (Cat. 3, Cat. 13), Chagar Bazar (Cat. 57), Tepe Gawra (G6-575) and Tell Halaf (TH08B-0074)
Publications: unpublished

49. 1937,1211.93
Excavation no: unknown
Site: Tell Brak
Context: tertiary
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 18.3 x 18.1 x 8.8mm (complete)
Weight: 4g
Material: stone
Shape: circular stamp glyph with dome profile
Design: triangular cross-hatching
Phase: Halaf or Early Ubaid
Parallels and remarks: This object has a somewhat unusual design and is the only example that has triangular cross-hatching made up this way, most examples either combine two quadrilateral grids or are based on hexagons. The pair of drilled dots are also unusual but not without precedent; an object with a relatively similar design is found at Arpachiyah (Cat. 2). More general parallels can be found at Tell Halaf (HF-010), Tell Kurdu (TK4260) and Domuztepe (dt-4698).
Publications: unpublished

50. 1938,0727.94
Excavation no: F. 673
Site: Tell Brak
Context: secondary ('Orack room. in debris below floor of Level B')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 17.8 x 12.3 x 5.3mm (complete)
Weight: 1.5g
Material: stone
Shape: square pendant glyph with wedge profile
Design: triangular cross-hatching
Phase: Halaf or Early Ubaid
Parallels and remarks: The most unusual aspect of this object is the material, plausibly carnelian. There are agate and carnelian glyphs from Tepe Gawra (G7-183 and G7-389)

and a couple of quartz glyphs from Arpachiyah (B15028) and Yarim Tepe II (YT-015), but for the large part most Late Neolithic stamp-glyphs are made out of softer stones. However, assuming the objects were worked with flint (chemically a type of quartz) blades there is no technical reason why they could not have carved softer carnelian or agate. The tapering form of the glyph, visible in the profile picture, is also unusual but the general shape and design are typical of the Late Neolithic with parallels from Arpachiyah B14991, Cat. 13), Gird Banahilk (Bh-7) and Girikihaciyan (45).
Publications: unpublished

51. 1938,0727.100
Excavation no: F. 591
Site: Tell Brak
Context: secondary ('Jemdet Nasr Palace Ziggurat, South end')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 22.9 x 7.4 x 10mm (complete)
Weight: 1g
Material: obsidian
Shape: triangular pendant glyph with lens profile
Design: triangular cross-hatching
Phase: Halaf or Early Ubaid
Parallels and remarks: This glyph is made from obsidian. Obsidian glyphs are rare in the Late Neolithic but are known from Domuztepe (dt-3859), Tepe Gawra (G7-63, G6-464) and Judaidah (x3205); the example from Judaidah is quite similar to this one.
Publications: unpublished

52. 1938,0727.127
Excavation no: F. 608
Site: Tell Brak
Context: secondary ('New Court -2-3m, the New Court is part of the Akkadian Palace')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 21 x 21.7 x 10mm (complete)
Weight: 4g
Material: stone
Shape: circular stamp glyph with flat profile
Design: centralising lines
Phase: Halaf/Ubaid
Parallels and remarks: This heavily worn object was found in 3rd millennium BC levels at Brak and likely reused explaining the very heavy wear. The design is almost flat with the surface of the glyph and deep grove polished into the profile and suspension. Such wear is uncommon on Late Neolithic glyphs but relatively common on glyphs found in secondary contexts, see Tilbeşar below. It has parallels from Chagar Bazar (Cat. 61), Domztepe (dt-492, dt-1113) and Judaidah (x2637, x4016).
Publications: unpublished

53. 1938,0727.132
Excavation no: F. 610
Site: Tell Brak
Context: secondary ('room S of Old Court, top metre')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 18.2 x 14.2 x 8.1mm (complete)
Weight: 2g
Material: stone
Shape: rectangular stamp glyph with flat profile
Design: Halaf or Early Ubaid
Phase: Late Neolithic, dating *c.* 6000–4500 BC
Parallels and remarks: This object was found in 3rd millennium BC levels at Brak but is presumably Late Neolithic. It is quite a common style with parallels from Arpachiyah (B15035), Domuztepe (dt-6891), Tell el-Kerkh (AK99-Reg.20, EK-029), Tell Hassuna (IM.50272) and Judaidah (x4673).
Publications: unpublished

54. 1938,0727.140
Excavation no: unknown
Site: Tell Brak
Context: secondary ('CR. H. Dump')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 16 x 16.5 x 9.9mm (complete)
Weight: 2.5g
Material: stone
Shape: circular stamp glyph with dome profile
Design: centralising quadrants
Phase: Halaf or Early Ubaid
Parallels and remarks: This object has a Late Neolithic form and design but the design is ephemeral and is either very heavily worn or very lightly cut, parts of it are visible primarily as a discolouration of the stone. The glyph has no fixed context and may post-date the Late Neolithic, but assuming it does not then it has parallels from Tell el-Kerkh (EK-020, EK-036). It resembles a glyph from Ur (Cat. 93) which also has no clear findspot.
Publications: unpublished

55. 1938,0727.141
Excavation no: unknown
Site: Tell Brak
Context: secondary ('New Court -2m')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 18.1 x 14.9 x 7.2mm (broken)
Weight: 2.5g
Material: stone
Shape: pear pendant glyph with pear profile
Design: centralising lines
Phase: Halaf or Early Ubaid
Parallels and remarks: This object has a freshly broken suspension. It was also found in a 3rd-millennium BC level, but is typologically Late Neolithic with parallels from Arpachiyah (Cat. 3, Cat. 12) and Yarim Tepe (YT-018).
Publications: unpublished

Chagar Bazar (36°52'33.1"N 40°53'51.9"E)
Chagar Bazar is a large tell site in north-east Syria. The site was excavated initially by a team led by Max Mallowan between 1935 and 1937. During these excavations Mallowan discovered large discontinuous occupation levels which left 3rd-millennium BC material almost directly above Halaf levels. As such the stratigraphy of his excavations is often confused and many of the objects below were discovered in 3rd-millennium BC levels but seem likely to have originally been Halaf which were disturbed during 3rd-millennium BC building work.

56. 1935,1207.428
Excavation no: S. 784
Site: Chagar Bazar
Context: primary ('Burial G67, level 5, Prehistoric pit')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 19.9 x 10.9 x 4.8mm (complete)
Weight: 10g
Material: stone
Shape: diamond pendant glyph with wedge profile
Design: centralising lines
Phase: Halaf, dating *c.* 6000–5300 BC
Parallels and demarks: This object comes from a grave discovered in a 3rd millennium BC layer immediately above Halaf levels. It is almost certainly Halaf and reused in a secondary context. The object itself seems to have extensive wear to the face with only short parallel lines preserved. Assuming it originally had more lines, it has a number of parallels including glyphs from Arpachiyah (A.573), Tell Halaf (HF-007) and Domuztepe (dt-5268).
Publications: Mallowan 1936, pp. 25–6 and fig. 7.10

57. 1935,1207.429
Excavation no: S. 791
Site: Chagar Bazar
Context: secondary ('Level 7')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 17 x 12.4 x 5.3mm (complete)
Weight: 15g
Material: stone
Shape: pear pendant glyph with wedge profile
Design: centralising lines with central cross and quadrilateral cross-hatching
Phase: Halaf, dating *c.* 6000–5300 BC
Parallels and remarks: This object has an unusual design that contains both cross-hatching and a centralising design. There are no real parallels to the overall design

though the two types of motif are very common. The form is fairly regular and has parallels with glyphs from Arpachiyah (Cat. 3, Cat. 9), Tepe Gawra (G7-63) and Yarim Tepe II (YT-018).
Publications: Mallowan 1936, pp. 25–6 and fig. 7.12

58. 1935,1207.433
Excavation no: S. 756
Site: Chagar Bazar
Context: secondary ('T.D. Level I')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 28.1 x 16.2 x 15.7mm (broken)
Weight: 6.5g
Material: stone
Shape: circular stamp glyph with ridged profile
Design: centralising circles with peripheral lines
Phase: Halaf, dating *c.* 6000–5300 BC
Parallels and remarks: Contextually this object was found in 2nd-millennium BC levels. Stylistically this is a Late Neolithic glyph. The design is interesting; the double circle motif is relatively common on Late Neolithic glyphs and was presumably made with a tanged drill bit. Close parallels to the design can be found at Domuztepe (dt-180, dt-4751), Tepe Gawra (G6-198), Tell Halaf (Cat. 71) and Tell Sabi Abyad (Z07-2).
Publications: Mallowan 1937, pp. 25–6 and fig. 7.9

59. 1935,1207.436
Excavation no: S. 732
Site: Chagar Bazar
Context: secondary ('-18m Prehistoric Pit')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 20.7 x 14.3 x 14.4mm (complete)
Weight: 5.5g
Material: stone
Shape: oval. Stamp glyph with lentoid profile
Design: divided lines
Phase: Halaf, dating *c.* 6000–5300 BC
Parallels and remarks: This concreted object was found in layers from around the middle Halaf. It is quite unusual to see such heavy wear at both ends of the suspension`. The design is also somewhat ephemeral seeming to consist of a pair of parallel lines loosely in the centre of the object. It may not be a stamp glyph but the form has parallels with some bead-glyphs from Tepe Gawra (i.e. G7-312 or G7-186) and may be an antecedent of those.
Publications: unpublished

60. 1935,1207.441
Excavation no: unknown
Site: Chagar Bazar
Context: tertiary
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 15.3 x 15.4 x 5mm (broken)
Weight: 4.5g
Material: stone
Shape: diamond pendant glyph with wedge profile
Design: divided lines
Phase: Halaf, dating *c.* 6000–5300 BC
Parallels and remarks: This heavily worn glyph appears to have damage to the left side in the photo and the design on the face seems worn down. The suspension however has a fairly fresh break, suggesting it was broken after the wear to the surface and side. The form and design, as preserved, are fairly typical but quite rare in combination with parallels from Arpachiyah (Cat. 9) and Tell Kurdu (TK 3097). No contextual information was preserved from this object but the heavy wear to the face could suggest 3rd or 2nd millennium BC reuse.
Publications: unpublished

61. 1935,1207.444
Excavation no: none
Site: Chagar Bazar
Context: secondary ('Level 6')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 11.6 x 10.8 x 5.7mm (complete)
Weight: 0.5g
Material: stone
Shape: circular stamp glyph with flat profile
Design: centralising lines
Phase: Halaf, dating *c.* 6000–5300 BC

Parallels and remarks: This tiny glyph has a typical design and form with parallels from Domuztepe (dt-492), Tell el-Kerkh (AK97-Reg.61, EK-040), Fıstıklı Höyük (FK-007) and Judaidah (x3958 x4016).
Publications: Mallowan 1936, p. 25 and fig. 7.6

62. 1936,1216.141
Excavation no: unknown
Site: Chagar Bazar
Context: tertiary
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 17.8 x 19.5 x 5.3mm (broken)
Weight: 3.5g
Material: stone
Shape: rectangular plaque(?) with flat profile
Design: triangular cross-hatching
Phase: Halaf, dating *c.* 6000–5300 BC
Parallels and remarks: This object is broken and has no evidence of a suspension or potential suspension. The flat plaque form is unusual and the diagonal crosses are only roughly orientated within the square cross-hatching. Without knowing the original shape or form of the object it is difficult to suggest parallels.
Publications: unpublished

63. 1936,1216.143
Excavation no: A. 923
Site: Chagar Bazar
Context: secondary ('B.D Level I – II')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 20.4 x 16.8 x 8.3mm (complete)
Weight: 3g
Material: stone
Shape: rectangular stamp glyph with flat profile
Design: triangular cross-hatching
Phase: Halaf, dating *c.* 6000–5300 BC
Parallels and remarks: This object was found in levels that date to the late 2nd millennium BC in another example of secondary reuse. It has strong parallels from Arpachiyah (Cat. 31, B15035, ioa53/436), Domuztepe (dt-243, dt-1031, dt-1786, dt-6291) and Fıstıklı Höyük (FK-006).
Publications: Mallowan 1937, pp. 137–8 and fig. 14.21

64. 1936,1216.145
Excavation no: A. 924
Site: Chagar Bazar
Context: secondary ('AK')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 14.5 x 14.3 x 8.8mm (complete)
Weight: 1.5g
Material: stone
Shape: circular stamp glyph with flat profile
Design: quadrilateral cross-hatching
Phase: Halaf, dating *c.* 6000–5300 BC
Parallels and remarks: This glyph's context is 'AK' but no Akropolis, or anything else that AK could be, is mentioned in the notes. However, Cat. 66 is from -3.5m AK and there it is noted to be a Halaf level. The object is somewhat damaged and worn around the edges of the face, but has a number of typological parallels, for example from Atchana (Cat. 45), Domuztepe (dt-4698, dt-6693), Tell el-Kerkh (AK99-Reg.20) and Tell Sabi Abyad (Z93-4).
Publications: unpublished

65. 1936,1216.146
Excavation no: A. 917
Site: Chagar Bazar
Context: secondary
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 13.2 x 12.9 x 8.1mm (complete)
Weight: 1.5g
Material: stone
Shape: square stamp glyph with pyramid profile
Design: quadrilateral cross-hatching
Phase: Halaf, dating *c.* 6000–5300 BC
Parallels and remarks: This pyramidal object is not distinctive and is quite similar to another glyph from Chagar Bazar (S.733) and has parallels from Tepe Gawra (G4-1171), Tell el-Kerkh (AK98-Reg.38, AK99-Reg.23), Domuztepe (dt-876, dt-3452) and Tell Kurdu (TK4260).
Publications: unpublished

66. 1936,1216.148
Excavation no: A. 926
Site: Chagar Bazar
Context: secondary ('-3.5m AK, Halaf Period')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 37.0 x 13.0 x 4.3mm (complete)
Weight: 3.5g
Material: stone
Shape: triangular pendant glyph with flat profile
Design: divided lines
Phase: Halaf, dating *c.* 6000–5300 BC
Parallels and remarks: As with Cat. 64 nothing is noted in the field notes about AK, however Mallowan's small find card notes that this object is from a Halaf level. The elongated nature of this object and the ephemeral design make it fairly unusual, although it is somewhat similar to a glyph from Tell Kurdu (TK 7290).
Publications: unpublished

67. 1936,1216.149
Excavation no: A. 929
Site: Chagar Bazar
Context: secondary ('B.D Level II')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 12.3 x 10.2 x 6.8mm (complete)
Weight: 0.5g
Material: stone
Shape: rectangular stamp glyph with flat profile
Design: quadrilateral cross-hatching
Phase: Halaf, dating *c.* 6000–5300 BC
Parallels and remarks: This object was found in a 2nd-millennium BC level, but it seems more likely that this was a secondary context. Various areas of wear are present on the body of the glyph and it has quite a simple design. There are parallels with glyphs with other partial designs from Domuztepe (dt-4697), Tell el-Kerkh (EK-062), Judaidah (x5059) and Tell Hasanusagi (T3838a).
Publications: unpublished

68. 1936,1216.183
Excavation no: A. 925
Site: Chagar Bazar
Context: secondary ('B.D Early Intermediate Level I')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 22.7 x 20.7 x 7.1mm (broken)
Weight: 4g
Material: stone
Shape: oval stamp glyph with flat profile
Design: divided lines
Phase: Halaf, dating *c.* 6000–5300 BC
Parallels and remarks: This object is made of an unusual material for the Late Neolithic (see discussion in Cat. 50 for a similar object). The design is ephemeral with very shallow grooves. Contextually it is found in a 2nd millennium BC context and plausibly dates to the 2nd millennium. In design and ephemerality it is quite similar to a glyph from Tell Brak (Cat. 54), though that may also post-date the Late Neolithic. Assuming it is Late Neolithic it has quite a good parallel to a glyph from Yumuktepe (YK-006).
Publications: Mallowan 1937, p. 137 and fig. 14.16

Germayir (36°52'19.3"N 40°51'15.8"E)
Germayir is a small site about three miles to the west of Chagar Bazar. A sounding excavation was conducted by Mallowan during his survey of the Khabur (see Mallowan 1937). A series of Akkadian graves were excavated, and it was in one of these where a stamp glyph was found.

69. 1936,1216.187
Excavation no: A. 928
Site: Germayir
Context: primary ('1.8m Burial GG 16')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 19.8 x 15.7 x 5.2mm (complete)
Weight: 1.5g
Material: stone
Shape: pear pendant glyph with wedge profile
Design: centralising square and lines?
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: Despite the primary context this

glyph is not mentioned in the site report, just the archival material. Mallowan dated all the graves at Germayir to the late 3rd millennium BC. It seems likely the glyph is a case of secondary reuse. The heavy wear on the glyph supports this, with the suspension at the top almost worn through and the shallower parts of the design almost erased. Traces of design visible in three of the quadrants suggest square and lines but are not well enough preserved to reconstruct the original design.

Publications: unpublished, although grave 16 is mentioned in Mallowan 1937, 125

Gogjeli (36°21'37.8"N 43°14'48.3"E?)

Gogjeli was reputedly a small site about one mile east of Arpachiyah. Gogjeli, more commonly transliterated as Gogjali, is the name of a village on the outskirts of Mosul (the coordinates of which are given above) at which Campbell Thompson (1915, 106) stayed. It seems likely that Mallowan learnt of a tell site near the village of Gogjali through Campbell Thompson (who also introduced Mallowan to Arpachiyah) and visited the site during his excavation at Arpachiyah where he reports Halaf period sherds on the surface and found a glyph.

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70. 1934,0210.361
Excavation no: A. 887
Site: Gogjeli
Context: secondary
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 26.4 x 9.5 x 10mm (complete)
Weight: 2.5g
Material: stone
Shape: rectangular pendant glyph with naturalistic profile
Design: framed cross-hatching or divided lines
Phase: Halaf, dating *c.* 6000–5300 BC
Parallels and remarks: This pendant glyph has a reverse in the shape of an animal's head. The nature of the animal is not immediately clear, but may be a quadruped head. Pendants in the shapes of animals or parts of animals with incised designs are rare. There is another quadruped from Chagar Bazar (CB-027), which provides the best parallel, but there are also glyphs in the shape of a frog from Tell el-Kerkh (AK99-Reg.24) and something like a dog from Tell Kurdu (TK 4056). The design is somewhat ambiguous but has quite a close parallel from Tell Sabi Abyad (Z99-2).
Publications: Mallowan and Rose 1935, pl. VII(b) and fig. 51.9; Von Wickede 1990, p. 291 and no. 164

Tell Halaf (36°49'36.2"N 40°02'23.1"E)

Tell Halaf is a large tell site in north-east Syria on the Turkish-Syrian border near the city of Ras al-Ain. The site was first excavated by a team led by Max von Oppenheim over a number of years in the early decades of the 20th century. The majority of the exported finds are in Germany, but a collection was bought by the British Museum which includes a number of Halaf-period stamp glyphs.

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71. 1920,1211.472
Excavation no: unknown
Site: Tell Halaf
Context: secondary
Acquisition: excavated by a team led by Max von Oppenheim
Dimensions: 18.2 x 16.3 x 5.8mm (broken)
Weight: 2.0g
Material: stone
Shape: irregular pendant glyph with irregular profile
Design: centralising circles
Phase: Halaf, dating *c.* 6000–5300 BC
Parallels and remarks: This object appears to have had two suspensions wear out, an original one at the top left of the left photo and one at the top right. This suggests a long use life for the object. The original form is somewhat hard to determine. The design is more common with a number of parallels from sites like Chagar Bazar (S.763), Domuztepe (dt-180, dt-5269), Tepe Gawra (G6-198) and Tell Sabi Abyad (Z07-02).
Publications: unpublished

72. 1920,1211.474
Excavation no: unknown
Site: Tell Halaf
Context: secondary
Acquisition: excavated by a team led by Max von Oppenheim
Dimensions: 17 x 16.6 x 6.1mm (complete)
Weight: 1.5g
Material: stone
Shape: circular stamp glyph with flat profile
Design: irregular cross-hatching
Phase: Halaf, dating *c.* 6000–5300 BC
Parallels and remarks: This glyph has an unusual design, with at least two sections of cross-hatching and three deeper lines forming a star. The form is typical of the Late Neolithic but there are no exact parallels to the design. It may be that the design was unfinished or altered as the triangular cross-hatching of the right and bottom of the picture is aligned with the deeper cross while the square cross-hatching across the top is not.
Publications: Hrouda 1962, p. 36 and pl. 27.54

73. 1920,1211.512
Excavation no: unknown
Site: Tell Halaf
Context: secondary
Acquisition: excavated by a team led by Max von Oppenheim
Dimensions: 24.9 x 21.3 x 9.5mm (broken)
Weight: 8.5g
Material: stone
Shape: irregular. Pendant glyph with flat profile
Design: framed cross-hatching or divided cross-hatching
Phase: Halaf, dating *c.* 6000–5300 BC
Parallels and remarks: This object is damaged and missing both the top and left side in the left photo, although traces of a suspension loop are visible at the top (as seen in the right photo). The indented form is unusual and has no exact parallels although similar objects with indents are known, for example glyphs from Kazane Höyük (KH-004), Yumuktepe (YK-009) and Atchana (A03-R1009). The design is relatively unusual as the two panels have different forms of cross-hatching, there is a parallel with a glyph from Domuztepe (dt-133), which makes it resemble framed cross-hatching. Glyphs from Tepe Gawra (G7-453) and Tell Tawila (TAW 06 C 69) have similarities as well.
Publications: unpublished

74. 1920,1211.554
Excavation no: unknown
Site: Tell Halaf
Context: secondary
Acquisition: excavated by a team led by Max von Oppenheim
Dimensions: 28.6 x 27.2 x 7.9mm (complete)
Weight: 9.5g
Material: stone
Shape: oval stamp glyph with dome profile
Design: centralising chevrons
Phase: Halaf, dating *c.* 6000–5300 BC
Parallels and remarks: The heavy wear to the face of this glyph suggests a long use life. However, the absence of a definitive context prevents us from knowing if this is Halaf wear or later use. Both the form and design are fairly common with good parallels from Tepe Gawra (G4-1088), Atchana (Cat. 44), Domuztepe (dt-4699) and Tell Maghzaliyah (MY-001).
Publications: Hrouda 1962, p. 36 and pl. 27.55

75. 1920,1211.517
Excavation no: unknown
Site: Tell Halaf
Context: secondary
Acquisition: excavated by a team led by Max von Oppenheim
Dimensions: 17.2 x 23.7 x 10.1 (broken)
Weight: 2.5g
Material: clay
Impressed object type: impressed sealing with basketry and string
Number of impressions: two, on two glyphs
Impression shape 1: oval pendant glyph?
Impression shape 2: unclear
Impression design 1: blank?

Impression design 2: unclear
Phase: Halaf, dating *c.* 6000–5300 BC
Parallels and remarks: This impressed sealing is broken on all sides but seems to possibly have been a basket sealing. It has two impressions, the first appears to be a blank glyph, though the design might have worn off, and the second seems incomplete on every side but looks to have been a panelled geometric design, possibly framed cross-hatching. A small area of cross-hatching between the two main impressions might be part of the second impression or a third glyph impression largely covered up.
Publications: unpublished

Khabur (region)

The Khabur (also known as Khaboor and Habur) River is a large tributary of the Euphrates in Syria. Large numbers of tell sites are found in its vicinity and those of its tributaries and it includes a number of the sites in this book including Tell Halaf, Tell Brak, Tell Barri, Germayir and Chagar Bazar. Mallowan surveyed the region in 1935 and identified dozens of sites. The glyphs in this section are recorded in his notes as coming from sites in the Khabur, in particular from the Wadi Jaghjagh where it has not been entirely possible to trace their origin. Some were purchased while others were picked up in the survey.

76. 1936,1216.136
Excavation no: A. 986
Site: Khabur
Context: tertiary
Acquisition: purchased by Max Mallowan
Dimensions: 33.5 x 32.7 x 13.9mm (complete)
Weight: 20.5g
Material: stone
Shape: circular stamp glyph with dome profile
Design: centralising square and lines
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: This object has a fairly typical form and design although the three drilled points in the design are uncommon. It has parallels from Arpachiyah (Cat. 14, B15093), Domuztepe (dt-14, dt-172, dt-353), Tell el-Kerkh (EK-035) and Yarim Tepe II (YT-022).
Publications: Mallowan 1937, p. 138 and fig. 14.28

77. 1936,1216.138
Excavation no: A. 957
Site: Wadi Jaghjagh
Context: tertiary
Acquisition: purchased by Max Mallowan
Dimensions: 30.3 x 29.8 x 11.7mm (broken)
Weight: 10.5g
Material: stone
Shape: circular stamp glyph with ridged profile
Design: centralising square and lines
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: This object has extensive concretions on the face and the suspension appears to have worn through. The glyph design and form have a number of parallels from Domuztepe (dt-172, dt-3858, dt-3987), Tell el-Kerkh (EK-035) and Yarim Tepe II (YT-022).
Publications: unpublished

78. 1936,1216.139
Excavation no: A. 960
Site: Wadi Jaghjagh
Context: tertiary
Acquisition: purchased by Max Mallowan
Dimensions: 31 x 28.9 x 8mm (complete)
Weight: 14g
Material: stone
Shape: square pendant glyph? with lens profile
Design: quadrilateral cross-hatching
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: This interesting object has no form parallels and if it were not for the incised geometric design it would seem unlikely that Mallowan would have purchased it. The design is typical of the Late Neolithic, but the form resembles a stone bowl; potentially this object was a bowl that had been repurposed as a glyph. The central piercing has no evidence of other suspension methods, and the deep grove on the reverse, visible in the profile picture, and on the front suggest this is not really a glyph.
Publications: unpublished

79. 1936,1216.140
Excavation no: A. 961
Site: Gundo or Gundar
Context: tertiary
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 30.2 x 16.9 x 7.5mm (broken)
Weight: 5g
Material: stone
Shape: oval pendant glyph with wedge profile
Design: framed cross-hatching
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: The origin of this glyph was noted by Mallowan as being a site called Gundo or Gundar, no such site has been identified but it was somewhere in the Khabur. The glyph has a broken top, and the remnants of a suspension are visible in the profile photo. At some point four partial incisions were drilled into the centre-top part of the object where no design is preserved. The lobed edge, partial design and extensive damage leave this object without many parallels, though it does have similarities in form and design to a glyph from Tell Halaf (Cat. 73) and another Khabur glyph (Cat. 84).
Publications: unpublished

80. 1936,1216.144
Excavation no: A. 959
Site: Wadi Jaghjagh
Context: tertiary
Acquisition: purchased by Max Mallowan
Dimensions: 18.6 x 18.4 x 11.1mm (complete)
Weight: 3g
Material: stone
Shape: circular stamp glyph with cone profile
Design: triangular cross-hatching
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: The design and form of this object are typologically typical. The triangular cross-hatching formed from two quadrilateral grids tends to be Halaf as opposed to Pottery Neolithic. Generally the object has a number of good parallels in form and design from sites such as Arpachiyah (Cat. 24, Cat. 27), Gird Banahilk (Bh-9), Tepe Gawra (G7-465) and Judaidah (x4672).
Publications: unpublished

81. 1936,1216.147
Excavation no: A. 965
Site: Wadi Jaghjagh
Context: tertiary
Acquisition: purchased by Max Mallowan
Dimensions: 21.1 x 20.3 x 6.4mm (complete)
Weight: 2.5g
Material: stone
Shape: triangular pendant glyph with wedge profile
Design: centralising lines
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: Both the design and form of this glyph are typically Late Neolithic. The specific form is a little more unusual because as the profile picture shows, the side of the glyph with the design on is quite curved while the back is flat; it has parallels with glyphs from sites like Arpachiyah (Cat. 2, B14997, B15003), Gird Banahilk (Bh-7) and Domuztepe (dt-719). The design has more parallels, for example glyphs from Arpachiyah (Cat. 3, B15013), Chagar Bazar (S.731), Tepe Gawra (G7-23) or Yarim Tepe II (YT-018).
Publications: unpublished

82. 1936,1216.150
Excavation no: A. 968
Site: Wadi Jaghjagh
Context: tertiary
Acquisition: purchased by Max Mallowan
Dimensions: 13.9 x 11.4 x 6mm (complete)
Weight: 1g
Material: stone
Shape: trapezoid stamp glyph with pyramid profile
Design: quadrilateral cross-hatching
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: This object is relatively generic; the trapezoid face and partial design are unusual although the entire object does have parallels with other partial designs for example from Domuztepe (dt-4697), Tell el-

Kerkh (EK-062), Judaidah (x5059) and Tell Hasanusagi (T3838a).
Publications: unpublished

83. 1936,1216.151
Excavation no: A. 966
Site: Meyrik
Context: tertiary
Acquisition: collected by Max Mallowan
Dimensions: 17.8 x 14 x 6.4mm (complete)
Weight: 1.5g
Material: stone
Shape: oval stamp glyph with flat profile
Design: quadrilateral cross-hatching
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: This is one of three objects reputed to come from a site called Meyrik. No such site has been identified although it is presumably in the Khabur, however it is possible that it is the name of the person the glyphs were acquired from. This glyph is relatively indistinctive, the design is worn but also appears partial with a similar form to Cat. 82, for which see parallels.
Publications: unpublished

84. 1936,1216.152
Excavation no: A. 962
Site: Khabur
Context: tertiary
Acquisition: purchased by Max Mallowan
Dimensions: 19.1 x 11.3 x 5.5 (broken)
Weight: 1.5g
Material: stone
Shape: pear pendant glyph with wedge profile
Design: framed cross-hatching
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: This glyph has a freshly broken suspension. Its design has two panels of triangular cross-hatching, or star motifs, above a panel of quadrilateral cross-hatching framed with parallel lines. It has parallels with a number of glyphs, for example from Arpachiyah (Cat. 5, B14994) and Domuztepe (dt-3859).
Publications: Mallowan 1937, p. 138, no. 24 and fig. 14.24

85. 1936,1216.254
Excavation no: none
Site: Meyrik
Context: tertiary
Acquisition: collected by Max Mallowan
Dimensions: 9.5 x 5.5 x 12mm (complete)
Weight: 3.5g
Material: stone
Shape: circular stamp glyph with ridged profile
Design: framed cross-hatching
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: See Cat. 83 for discussion of Meyrik. This object shows evidence of concretions on the reverse and cleaning on the face. The framed triangular design on a stamp glyph is uncommon but does have a parallel from Tell el-Kerkh (EK-047). For pendant glyphs with a similar design see glyphs from Arpachiyah (B15041, B14994, Cat. 5) and Tepe Gawra (G7-203).
Publications: unpublished

86. 1936,1216.255
Excavation no: none
Site: Meyrik
Context: tertiary
Acquisition: collected by Max Mallowan
Dimensions: 25.1 x 24.5 x 15.2mm (complete)
Weight: 6.5g
Material: baked clay
Shape: circular stamp glyph with ridged profile
Design: quadrilateral cross-hatching
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: See Cat. 83 for discussion of Meyrik. Clay glyphs are relatively more common in the Pottery Neolithic and Ubaid. This glyph has a typical form and design although the drill marks on the surface of the glyph are more unusual. It has clay parallels from Tell el-Kerkh (EK-016), Ras Shamra (RS.55) and more general

ones from Arpachiyah (Cat. 32), Tell el-Kerkh (EK-051) and Kurdu (TK4260).
Publications: unpublished

Tell Khanzir (36°50'15.2"N 40°53'24.9"E)
Tell Khanzir is a small site about 4km south of Chagar Bazar in north-east Syria. Nothing is really known of the tell although Mallowan reports prehistoric pottery at the site (Mallowan 1936, 7). The singular glyph from the site here was picked up by Mallowan during his survey of the region.

87. 1936,1216.142
Excavation no: A. 973
Site: Tell Khanzir
Context: tertiary
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 20.0 x 18.9 x 6.3mm (complete)
Weight: 3.5g
Material: stone
Shape: oval stamp glyph with lentoid profile
Design: centralising chevrons
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: This object's lentoid profile suggests a Halaf or later date; it is most common in the Ubaid. The design suggests chevrons and it has parallels with objects from Tepe Gawra (G4-1088), Tell Halaf (Cat. 74) and Tarsus (TS2).
Publications: unpublished

Tilbeşar (36°52'26.3"N 37°33'29.6"E)
Tilbeşar (also known as Turbessel and Tell Bashar) is a large tell site in south-east Turkey about 15 miles south-east of Gaziantep in the Sajur valley. Most famously it was a crusader fort of the County of Edessa after the First Crusade. The tell has been excavated in recent years by a French team directed by Christine Kepinski (e.g. 2009). The Museum's collection of material was collected in 1908 by David George Hogarth who purchased 59 objects, mostly glyphs, beads and pendants, which were all bought by the Museum, from a village at the foot of the tell (Hogarth 1910, 163–5). Hogarth assumed them all to be Hittite, but the majority of them most probably date to the Late Chalcolithic or earlier and a group of 17 objects are likely to be Late Neolithic or Early Chalcolithic glyphs. Many of the objects display heavy wear as prior to purchase they were used as amulets and jewellery by the local population.

88. 1908,0613.24
Excavation no: none
Site: Tilbeşar
Context: secondary
Acquisition: purchased by David George Hogarth
Dimensions: 25.2 x 14.8 x 23.1mm (broken)
Weight: 9.5g
Material: stone
Shape: rectangular. Stamp glyph with ridged profile
Design: irregular (damaged)
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: This glyph is damaged with at least half the design missing. The design is loosely similar to glyphs from Tell Sabi Abyad (Z88-1, Z96-4, Z07-2) or Tell Halaf (HF-014) while the shape is similar to glyphs from Tell el-Kerkh (AK00-Reg.21, EK-056).
Publications: unpublished

89. 1908,0613.89
Excavation no: none
Site: Tilbeşar
Context: secondary
Acquisition: purchased by David George Hogarth
Dimensions: 22.7 x 18.2 x 5.7mm (broken)
Weight: 2g
Material: stone
Shape: triangular (formally diamond) stamp glyph with flat profile
Design: centralising circles
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: This glyph was probably once diamond shaped as the remains of a fourth circle is clearly visible in the top part of the glyph. Glyphs with these double circle designs and flat profiles are more common in the Late Neolithic and this glyph has parallels with Arpachiyah (B15012), Domuztepe (dt-180) and Chagar Bazar (Cat. 58).
Publications: unpublished

Nimrud (36°05'53.5"N 43°19'43.6"E)
Nimrud lies on the eastern bank of the Tigris about 20km south of Mosul. Most famous as an Assyrian capital, the city is not immediately known to have had prehistoric levels but there are five objects, three in this section (Cat. 90–2) and two in the Chalcolithic one. Two of them (Cat. 90, 128) come from the excavations directed by Layard while the remainder come from the excavations directed by Mallowan. Little contextual information has been preserved and it is unclear how the objects might have come to Nimrud. It is possible that there are unexcavated prehistoric levels which had been disturbed by the Assyrian builders.

90. N.1362
Excavation no: unknown
Site: Nimrud
Context: tertiary
Acquisition: excavated by a team led by Austen Henry Layard
Dimensions: 18.6 x 11.7 x 3.6mm (complete)
Weight: 0.5g
Material: stone
Shape: oval pendant glyph with wedge profile
Design: framed cross-hatching
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: Pendant glyphs with a front piercing are relatively unusual, as is the irregular shape of this glyph. Otherwise it has quite a typical design and overall form with a very close parallel, even down to the front piercing, to a glyph from Arpachiyah (B14994). The material is interesting too as there are glyphs from Arpachiyah (Cat. 17) and Nineveh (Cat. 126) that look to be made of a very similar stone, possibly suggesting a source somewhere in the Mosul region.
Publications: unpublished

91. 1994,1105.222
Excavation no: ND. 1034
Site: Nimrud
Context: secondary ('Room ZZ level 3')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 32.6 x 9.9 x 10.2mm (broken)
Weight: 4g
Material: stone
Shape: rectangular pendant glyph with wedge profile
Design: divided lines
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: This object was found in Neo-Assyrian levels and potentially dates to long after the Neolithic or Chalcolithic. However it does not look to be from the 1st millennium BC and both the form and design have parallels with a number of Late Neolithic glyphs, including ones from Tell Kurdu (TK 3097), Chagar Bazar (Cat. 66) and Umm Qseir (UQ-004). It is heavily damaged (visible in the left on the photo) and was likely originally quite a bit larger.
Publications: unpublished

92. 1994,1105.461
Excavation no: unknown
Site: Nimrud
Context: tertiary
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 22.1 x 21.1 x 8.4mm (broken)
Weight: 5g
Material: stone
Shape: circular pendant glyph with wedge profile
Design: quadrilateral cross-hatching
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: This glyph has not been identified with certainty as originating from Nimrud as no excavation number was identified. However, it was catalogued with material from Mallowan's excavations at Nimrud. In form and design it is typically Late Neolithic and has a number of parallels, from sites including Arpachiyah (B15000, A.2), Tell Chenchi (A 12449) and Tepe Gawra (G6-464, G6-390). The design is somewhat unusual in that overlaying the squarer quadrilateral grid is a combination of lines that do not quite form a triangular grid. It is somewhat similar to a glyph from Çavi Tarlası (Ç. T. 84-22), but it is unclear if this is a finished design or if it was an ongoing process. The break on the suspension is fresh without much sign of wear so possibly while being made the

glyph broke, or was broken, and the design therefore never finished.
Publications: unpublished

Ur (30°57'45.0"N 46°06'11.0"E)
Ur is a very large tell site in southern Iraq near Nasiriyah. The site was first excavated in the 19th century but came to public fame through the joint British Museum and Philadelphia University Museum excavation led by Leonard Woolley between 1922 and 1934. During these excavations, which largely focused on the 3rd and 2nd millennia BC, Woolley found many Ubaid remains. However, the excavations did not really reach beyond the Late Ubaid after about 5000 BC, although sherds from Ubaid 1 are known (Huot 1989, 19). This makes placing the Ur glyphs in the chronological sequence difficult. The Ubaid levels at Ur are contemporaneous with the Late Neolithic in the north and it is possible glyphs were exchanged through contact. However, knowledge of South Mesopotamia during the Early Ubaid is very limited.

93. 1927,1003.206
Excavation no: U. 3289
Site: Ur
Context: secondary, no context on field card
Acquisition: excavated by a team led by Leonard Woolley
Dimensions: 18.0 x 18.7 x 11.8mm (complete)
Weight: 2g
Material: stone
Shape: circular stamp glyph with ridged profile
Design: centralising quadrants
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: This object has no findspot; the relatively low U number suggests a later date on the basis that Woolley did not find much Ubaid material in the earlier seasons. However, its form and design are reminiscent of the Late Neolithic and it has parallels from Tell el-Kerkh (EK-020, EK-036) although the design itself appears damaged around the edges. It resembles a glyph from Tell Brak (Cat. 54) which also has no clear context.
Publications: unpublished

94. 1930,1213.138
Excavation no: U. 15323
Site: Ur
Context: primary ('Pit F - 12.50m')
Acquisition: excavated by a team led by Leonard Woolley
Dimensions: 22.8 x 21 x 7.9mm (complete)
Weight: 4g
Material: stone
Shape: square stamp glyph with bowled profile
Design: centralising square and lines
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: This glyph was found 12.5m below sea level in Pit F, placing it within Ubaid levels. The design is relatively common in the Halaf in Upper Mesopotamia, but this is the only example known from the Ubaid or south Mesopotamia. There is wear to the face, particularly at the bottom left in the picture below, possibly suggesting the object was curated for a long time.
Publications: Woolley 1956, 181

95. 1933,1013.92
Excavation no: U. 18589
Site: Ur
Context: primary ('Pg Pit W below the silt stratum')
Acquisition: excavated by a team led by Leonard Woolley
Dimensions: 26.2 x 22.4 x 5.3mm (complete)
Weight: 3g
Material: baked clay
Shape: oval stamp glyph with lentoid profile
Design: divided zigzags
Phase: Late Neolithic, dating *c.* 7000–4500 BC
Parallels and remarks: This unusual object may not be a glyph at all and instead be a worked clay bead. However, it comes from an 'antediluvian' layer at Ur and thus was found in an Ubaid level. There are a series of glyph impressions from Domuztepe (dt-7332, dt-7333, dt-7325, dt-7329) which have a surprisingly similar split zigzag motif but there are no

other convincing provenanced parallels to clarify the nature of this object.
Publications: Woolley 1956, 193

Chalcolithic glyphs and impressed sealings

Chalcolithic glyphs and sealings are not especially well represented in the Museum's provenanced collection. The majority are Iranian, either from Stein's expeditions or Herzfeld. There are only a few Mesopotamian ones in the catalogue including examples from Tell Brak, Nimrud, Nineveh, Ur and Tilbeshar. The reasons for this are historical as many of the excavations in the early 20th century the Museum has collections from were not digging Chalcolithic sites. Chalcolithic glyphs commonly have naturalistic designs, and domes and gable shapes are very popular. There is much more evidence of use as seals than in the Late Neolithic, with thousands of impressed sealings known from sites like Arslantepe, Degirmentepe or Tepe Gawra. Despite the large numbers of provenanced Chalcolithic glyphs and impressed sealings known from across the Middle East, there is much more variety and far less internal consistency than was apparent in the Late Neolithic examples. In part this must reflect their greater geographic range, but also possibly that identification became more important, albeit on a restricted set of themes.

Tell Arpachiyah
See pp. 51–2

96. 1934,0210.379
Excavation no: A. 34
Site: Arpachiyah
Context: secondary
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 24.6 x 19.2 x 9.8mm (broken)
Weight: 2.5g
Material: stone
Shape: circular stamp glyph with ridged profile
Design: centralising wedged cross
Phase: Terminal Ubaid, dating *c.* 4400–4000 BC
Parallels and remarks: This unusual design has parallels with the terminal Ubaid at Tepe Gawra (e.g. G7-80, G7-172) and interesting parallels with unstratified glyphs from Tepe Giyan (e.g. Cat. 143). This evidence of a Chalcolithic continuum of designs is interesting and discussed more widely in the section on Tepe Giyan below.
Publications: Mallowan and Rose 1935, pl. VII(a) and fig. 50.20

97. 1934,0210.387
Excavation no: A. 604
Site: Arpachiyah
Context: primary, Ubaid feature ('T.T.4 well')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 76.1 x 33.4 x 18.3 (broken)
Weight: 36.5g
Material: clay
Impressed object type: tag? Jar sealing?
Number of impressions: three, same glyph
Impression shape: circular
Impression design: naturalistic
Phase: Late Ubaid, dating *c.* 4500–4000 BC
Parallels and remarks: This impressed sealing is broken at both ends. It has three impressions of the same circular naturalistic glyph that shows a quadruped with a bird on its back. The reverse shows no clear imprints of a sealed surface but is slightly rounded suggesting a jar sealing. T.T.4 well is a mixed Halaf and Ubaid area but the design strongly suggests a Late Ubaid date.
Publications: von Wickede 1990, p. 301 and no. 418; Mallowan and Rose 1935, pl. IX(a)

98. 1934,0210.388
Excavation no: A. 606
Site: Arpachiyah
Context: secondary, Ubaid context ('om G')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 40.8 x 38 x 13.7mm (broken)
Weight: 23g
Material: clay
Impressed object type: disk
Number of impressions: 1
Impression shape: square
Impression design: naturalistic
Phase: Late Ubaid, dating *c.* 4500–4000 BC
Parallels and remarks: This impressed disk is broken at the bottom. It has a singular impression of a quadruped possibly with a bird above its back. The reverse shows no clear marks to suggest it was sealed to anything. The context Arpachiyah G has little to no information recorded about it

but other objects from the site, also from G, and the design suggests a Late Ubaid date.
Publications: von Wickede 1990, p. 301 and no. 415; Mallowan and Rose 1935, pl. IX(a)

99. 1934,0210.390
Excavation no: A. 612
Site: Arpachiyah
Context: secondary, Ubaid context ('-0.5 m D')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 29.6 x 23.1 x 13.7mm (broken)
Weight: 7g
Material: clay
Impressed object type: impressed sealing with string
Number of impressions: one
Impression shape: rectangular
Impression design: naturalistic
Phase: Late Ubaid, dating *c.* 4500–4000 BC
Parallels and remarks: This impressed sealing is broken above the string mark and it is therefore unclear what its original type might have been. It has a single impression of a glyph with a pair of quadrupeds, likely dogs (often referred to as salukis) as at Tepe Gawra (e.g. Hole and Wyllie 2007). The context Arpachiyah D above -2.5 m is described as having Ubaid and Uruk pottery, though as no Uruk sherds have been subsequently identified as coming from Arpachiyah it suggests a Late Ubaid date.
Publications: von Wickede 1990, p. 301 and no. 417; Mallowan and Rose 1935, pl. IX(a))

Tell Brak
See p. 65

100. 1937,1211.147
Excavation no: none
Site: Tell Brak
Context: secondary ('Jemdet Nasr Palace')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 33.1 x 27.6 x 19mm (broken)
Weight: 14g
Material: clay
Impressed object type: impressed jar sealing? Door lock?
Number of impressions: two, on two glyphs
Impression shape 1: unclear
Impression shape 2: unclear
Impression design 1: naturalistic
Impression design 2: unclear
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: This fragmentary impressed object has grooved edges suggesting it originally sealed a container or handle. The first impression depicts an antlered quadruped, possibly with a smaller quadruped to its left. The second, visible on the far left of the object, may also have displayed a quadruped but only its legs are preserved.
Publications: Mallowan 1947, p. 150 and pl. XXIV.20; von Wickede 1990, p. 301 and no. 423

101. 1937,1211.163
Excavation no: none
Site: Tell Brak
Context: secondary
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 36.0 x 32.7 x 19.4mm (broken)
Weight: 14.3g
Material: clay
Impressed object type: unclear
Number of impressions: four, same glyph
Impression shape: circular
Impression design: blank? Naturalistic?
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: This fragmentary impressed object has no traces of its original form. The four impressions appear to have been of the same glyph; very little relief is preserved and the traces that remain suggest a naturalistic glyph. However they are so faint it is also possible the glyph was blank.
Publications: unpublished

102. 1937,1211.165
Excavation no: none
Site: Tell Brak, no. ?
Context: secondary ('UNC')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 38.8 x 35.3 x 16.2mm (broken)
Weight: 15.7g
Material: clay
Impressed object type: impressed sealing
Number of impressions: one
Impression shape: circular
Impression design: naturalistic
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: The origin of this glyph is uncertain; it is likely to be from Tell Brak but the only context (UNC/UMC) is unclear. This probably means it was found in the spoil heaps. Part of the reverse is flat suggesting it was attached to a container. The design is fragmentary but probably shows part of an animal facing to the right.
Publications: unpublished

103. 1938,0727.102
Excavation no: unknown
Site: Tell Brak
Context: tertiary
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 49.4 x 32.8 x 9.1mm (complete)
Weight: 24g
Material: stone
Shape: rectangular stamp glyph with gable profile
Design: naturalistic
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: This object's form is typically Chalcolithic as gable styles are very common in the Chalcolithic, but has a somewhat unusual design. Von Wickede (1990, 268) suggests it shows a lion with visible ribs. There is a quite a similar design (with ribs and arrows) on a gable glyph from Norşuntepe (NO 72/2).
Publications: von Wickede 1990, p. 306 and no. 576

104. 1938,0727.114
Excavation no: F. 607
Site: Tell Brak
Context: secondary ('New Court, in rubbish on floor')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 32.1 x 30.8 x 8.6mm (complete)
Weight: 9g
Material: stone
Shape: circular stamp glyph with lentoid profile
Design: naturalistic
Phase: Uruk, dating *c.* 4000–3200 BC
Parallels and remarks: This object is one of the only provenanced stamp glyphs in the British Museum whose earliest date is Uruk. The form and juxtaposition of animals is quite distinctive, but also very rare. There are a number of glyph impressions showing similar forms of animals from Arslantepe V I A (e.g. A206-025, A206-020; see groups 7–8, Frangipane and Pittman 2007, 254–7) and Tepe Gawra VIII (G-6078) but physical glyphs with such designs remain elusive.
Publications: Amiet 1961, 167; von Wickede 1990, p. 305 and no. 564; Mallowan 1947, p. 127 and pl. XIX.13-14

105. 1938,0727.117
Excavation no: F. 534
Site: Tell Brak
Context: secondary ('grey brick stratum, south side of Eye-Temple platform')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 22.7 x 22.8 x 7.1mm (complete)
Weight: 6g
Material: stone
Shape: circular stamp glyph with dome profile
Design: naturalistic
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: This object is a typical domed glyph with naturalistic design. The design shows a quadruped with antlers; horns are more common but some parallels for antlers have been found at Tepe Gawra (G3-408, G5-1237, G5-1638, G7-275) and Arslantepe (A206-041).

Publications: Mallowan 1947, pp. 126–7 and pl. XIX.5-6

106. 1938,0727.119
Excavation no: F. 630
Site: Tell Brak
Context: secondary ('Filling of Shaft 2, North-West side of Eye-Temple Platform')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 22.5 x 21.3 x 8.1mm (complete)
Weight: 5.5g
Material: stone
Shape: circular stamp glyph with dome profile
Design: centralising hatched-cross with peripheral lines
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: This object has a typical domed form but an unusual design for Mesopotamia where there are no strong parallels. From Iran however there is a similar glyph from Tepe Giyan (Cat. 142), as well as more general parallels from Tall-e Bakun (565) and Susa (Sb 919, S. 72). It is possible that this glyph is an import to the region or reflects a connection between Mesopotamia and western Iran.
Publications: Mallowan 1947, pp. 125–6 and pl. XIX.1&2

107. 1938,0727.128
Excavation no: unknown
Site: Tell Brak
Context: tertiary
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 23 x 12.9 x 6.7mm (broken)
Weight: 3g
Material: stone
Shape: circular stamp glyph with dome profile
Design: naturalistic
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: This object has broken along the line of the suspension piercing. The design appears to show the upper half of a humanoid but is too broken to draw reliable parallels. Humanoid figures occur on glyphs from about the middle of the 5th millennium BC and this example has some parallels with impressions from Tepe Gawra (G4-1191, G4-1192, G5-1595).
Publications: unpublished

108. 1938,0727.273
Excavation no: none
Site: Tell Brak
Context: secondary ('Jemdet Nasr Palace Exit Room, Below Footing')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 50.9 x 44.2 x 14mm (broken)
Weight: 19g
Material: clay
Impressed object type: impressed sealing
Number of impressions: one
Impression shape: circular
Impression design: naturalistic
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: This impressed sealing has a flat reverse suggesting it was pressed to something smooth. The singular impression shows a horned quadruped with an indeterminate motif above its back. It is quite similar in style to Cats 102 and 106 (also from Tell Brak) and see Cat. 105 for other parallels.
Publications: Mallowan 1947, pp. 145–6 and pl. XXIII.5; von Wickede 1990, no. 429

109. 1939,0208.55
Excavation no: G. 152
Site: Tell Brak
Context: secondary
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 39.9 x 31.7 x 13.9mm (complete)
Weight: 28g
Material: stone
Shape: circular stamp glyph with dome profile
Design: naturalistic
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC

Parallels and remarks: This heavily worn object is likely to be calciferous, which explains the corrosion to the glyph. See Cat. 105 for parallels.
Publications: unpublished

110. 1939,0208.68
Excavation no: G. 730
Site: Tell Brak
Context: secondary ('South side of the Eye-Temple platform')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 21.1 x 14.4 x 6.2mm (complete)
Weight: 3.5g
Material: stone
Shape: rectangular stamp glyph with gable profile
Design: naturalistic
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: This object has a naturalistic design and slightly rounded gabled profile. It displays a bearded goat-like animal with five legs. Five-legged animals are quite rare but not unknown; for example there is an impression of a five-legged deer from Arslantepe (A206-118). It is also possible the front leg may not be intended as a leg but could be chest hair, an elongated filling motif or movement.
Publications: Mallowan 1947, pp. 129–30 and pl. XX.11+12

111. 1939,0208.135
Excavation no: none
Site: Tell Brak
Context: secondary
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 56 x 42.3 x 24mm (broken)
Weight: 40.4g
Material: clay
Impressed object type: impressed sealing
Number of impressions: one
Impression shape: square
Impression design: naturalistic
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: This fragmentary impressed sealing has a flat reverse implying it was pressed to something smooth. The impression shows three animals, likely four originally, facing to the right. The glyph face is quite worn but the style has a close parallel at Tepe Gawra (G3-188) as well as more general parallels from Tepe Gawra (G6-444, G7-60, G7-96), Değirmentepe (D 81-321, D 83-151) and Arslantepe (A206-019).
Publications: von Wickede 1990, no. 419

112. 1939,0208.137
Excavation no: none
Site: Tell Brak
Context: secondary
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 26.7 x 18.7 x 10mm (broken)
Weight: 5g
Material: clay
Impressed object type: impressed sealing
Number of impressions: one
Impression shape: circular?
Impression design: naturalistic?
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: This fragmentary impressed sealing has traces of the object it was adhered to, possibly basketry. The impression looks to be part of an animal but is too fragmentary to make out distinctive features.
Publications: unpublished

Chigha-Kabud (34°12'08.0"N 48°09'21.5"E)
Chigha-Kabud is a small tell site about 20km west of the city of Nahavand in western Iran. It was visited by Stein (1940, 289–90) during his expedition to western Iran in 1935–6; little is known about the site except that it was about 20ft tall and he found a variety of Chalcolithic sherds on the site and a single glyph.

113. 1947,0501.191
Excavation no: Kab N of 18
Site: Chigha-Kabud
Context: secondary
Acquisition: excavated by a team led by Auriel Stein
Dimensions: 12.1 x 11.2 x 11.9mm (complete)
Weight: 2g
Material: stone
Shape: circular stamp glyph with a blunt cone profile
Design: centralising quadrants
Phase: Chalcolithic, dating *c.* 5000–4000 BC
Parallels and remarks: This object has quite an unusual form with a very regular diameter and flat face. The design has two opposed geometric panels but is relatively indistinct. It has no good parallels and while chronologically many of the finds at Chigha-Kabud are Chalcolithic, there is an ambiguity to this glyph that could suggest a later date.
Publications: Stein 1940, p. 291 and pl. XV.9

Chigha-Pahan (33°32'32.7"N 47°39'34.5"E)
Chigha-Pahan is a tell site a few kilometres to the east of the city of Kuhdasht in Western Iran. It was visited by Stein (1940, 261–2) during his expedition to western Iran in 1935–6. Again little is known about the site except that it was a roughly circular tell about 35ft high. Stein conducted a pair of step trenches down the sides and found a large number of sherds and a couple of stamp glyphs, one of which is published here.

114. 1947,0501.152
Excavation no: unknown
Site: Chigha-Pahan
Context: secondary
Acquisition: excavated by a team led by Auriel Stein
Dimensions: 37.4 x 36 x 13.9mm (broken)
Weight: 27g
Material: stone
Shape: circular stamp glyph with blunt cone profile
Design: unclear
Phase: Chalcolithic, dating *c.* 5000–4000 BC
Parallels and remarks: This object is damaged on one side and appears heavily worn. The form is unusual for its flat 'top', which looks like it might have been ground down from a dome at some point. The design of this glyph is very unclear and appears to have been partially obscured. There is a 'snake' round the edge of the glyph (see Cat. 137 from Tepe Giyan for a more pronounced example and discussion). There may be the remains of a figure or pair of figures in the centre of the glyph but ultimately the design is too unclear for wider interpretation.
Publications: Stein 1940, pl. XI.18

Dehbid (30°37'52.5"N 53°14'19.8"E)
Dehbid is a small tell site about 130km north east of Shiraz. It was visited by Stein (Stein 1936, 213–17) during his expedition in Fars province in 1933–4. Dehbid was originally just the name of the settlement nearby while the mound was known locally as Qasr-i-Bahram. The upper part of the tell was covered by a ruined fort but there were unobstructed prehistoric levels that Stein excavated. Twenty-three 8ft section trenches were dug and backfilled, and extensive Chalcolithic remains were found. This included three stamp glyphs, two of which are published here.

115. 1937,1011.247
Excavation no: Dehbid W Stair 2
Site: Dehbid
Context: secondary
Acquisition: excavated by Auriel Stein
Dimensions: 32.0 x 26.9 x 10.7mm (complete)
Weight: 8g
Material: stone
Shape: oval stamp glyph with bowled profile
Design: centralising square and lines
Phase: Chalcolithic, dating *c.* 5000–4000 BC
Parallels and remarks: This object has a bowled profile which is a distinctive, though not unique, Iranian Chalcolithic trait (see for example Tall-e Bakun (Alizadeh 2006) or Susa (Amiet 1972)). There are no exact parallels to the specific design as the combination of an outer square and centralising lines is rare in Iran, though examples are fairly common in Late Neolithic Mesopotamia (e.g. one from Domuztepe dt-3987). That said, similar designs are quite common, for which see glyphs from Tepe Hissar (H2051, H3427) or Susa (Sb 985, Sb 987, Sb 5479).
Publications: Stein 1936, pp. 216–17 and pl. XXX.25

116. 1937,1011.248
Excavation no: Deh-bid 32
Site: Dehbid

Context: secondary
Acquisition: excavated by a team led by Auriel Stein
Dimensions: 22.6 x 20.3 x 11.7mm (complete)
Weight: 4g
Material: stone
Shape: oval stamp glyph with bowled profile
Design: divided lines
Phase: Chalcolithic, dating *c.* 5000–4000 BC
Parallels and remarks: This object has a typical form but somewhat unusual design, wavy patterns are fairly common on Iranian glyphs, see examples from Tepe Hissar (H1012, H1782), Sialk (S. 78) or Susa (Sb 5552). This example is more irregular as many of the lines are slightly broken or transected, suggesting a different design; visually it somewhat resembles antlers.
Publications: Stein 1936, pp. 216–17 and pl. XXX.26

Girairan (33°54'11.3"N 48°13'51.0"E)
Girairan is a tell site around 30km to the south west of the city of Nahavand in western Iran. It was visited by Stein (1940, 278–85) during his expedition in 1935–6 when he spent five days at the site. The site was roughly circular and rose to about 30ft above the plain and has the remains of a medieval castle on the top. Three step trenches were excavated and the site appears to have had a large 2nd millennium BC occupation but also had Chalcolithic sherds and a Chalcolithic stamp glyph.

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117. 1947,0501.11588
Excavation no: unknown
Site: Girairan
Context: secondary
Acquisition: excavated by a team led by Auriel Stein
Dimensions: 26.5 x 13.4 x 9.6 (complete)
Weight: 4g
Material: stone
Shape: rectangular stamp glyph with gabled bowled profile
Design: divided lines
Phase: Chalcolithic, dating *c.* 5000–4000 BC
Parallels and remarks: This object has a worn break at the suspension suggesting it was used extensively until the suspension wore out. The design on this glyph is unusual in that it is almost positive and the edges have been removed so the section of glyph holding the incised design stands proud. There is a very close parallel in form and design from Tepe Giyan (TG 2396).
Publications: Stein 1940, pl. XIV.6

Tell Halaf
See p. 71

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118. 1920,1211.515
Excavation no: unknown
Site: Tell Halaf
Context: secondary
Acquisition: excavated by a team led by Max von Oppenheim
Dimensions: 45.9 x 36.6 x 25.6mm (broken)
Weight: 23g
Material: clay
Impressed object type: impressed sealing with string
Number of impressions: one
Impression shape: square
Impression design: naturalistic
Phase: Late Chalcolithic, dating 4000–3200 BC
Parallels and remarks: This impressed sealing looks likely to have been a jar sealing. The impression is quite worn but appears to depict a number of seated quadrupeds with various filling motifs. Little is known of Ubaid or Late Chalcolithic levels at Halaf but the glyph impression has parallels with Cat. 111 and see parallels listed there.
Publications: unpublished

Khabur (region)
See p. 73

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119. 1936,1216.137
Excavation no: A. 976
Site: Wadi Jaghjagh
Context: tertiary
Acquisition: purchased by Max Mallowan
Dimensions: 42.9 x 36.7 x 9.7mm (complete)
Weight: 21.5g
Material: stone
Shape: oval stamp glyph with lentoid profile
Design: naturalistic
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: This object shows an antlered quadruped. Combined with the lentoid form it is most likely Late Ubaid or Chalcolithic though thematically similar

glyphs are known rarely from at least the Pottery Neolithic (e.g. a glyph from Domuztepe (dt-6352)).
Publications: unpublished

120. 1936,1216.153
Excavation no: A. 956
Site: Wadi Jaghjagh
Context: tertiary
Acquisition: purchased by Max Mallowan
Dimensions: 29.5 x 28.4 x 7.7mm (broken)
Weight: 8g
Material: stone
Shape: circular pendant glyph with wedge profile
Design: naturalistic
Phase: Ubaid, dating 5000–4000 BC
Parallels and remarks: The form of this object resembles many Late Neolithic pendant glyphs but the design is different; the lightly carved horned quadruped is at 90 degrees to the body of the glyph with the animal's body made of drilled points, a technique uncommon in the Late Neolithic. It is interesting and unfortunate that it does not have a better context. There are some parallels for the drilled sections and 90 degree alignment from Ubaid levels at Tepe Gawra (G5-1711, G6-452, G7-61).
Publications: Mallowan 1937, p. 137, no. 6 and fig. 14.6

121. 1936,1216.179
Excavation no: unknown
Site: unknown
Context: tertiary
Acquisition: purchased by Max Mallowan
Dimensions: 25.1 x 14.2 x 137mm (broken)
Weight: 6g
Material: stone
Shape: circular stamp glyph with dome profile
Design: unclear
Phase: Late Ubaid or Late Chalcolithic, dating 4500–3200 BC
Parallels and remarks: This object has quite a typical Late Ubaid or Chalcolithic shape but is too broken to make much of the design. The lower feature looks to be an animal but the large filling triangles above make it ambiguous.
Publications: unpublished

Kozagaran (33°08'59.4"N 47°27'34.4"E)
Kozagaran is a site around 50km to the south west of the city of Kuhdasht in western Iran. It was visited by Stein (1940, 198–204) during his expedition in 1935–6 when he spent six days at the site. The site was on top of a clay ridge that rose to over 100ft above the surrounding plain. Stein suggests most of the finds were washed there from a site on top of the ridge that had largely been eroded. Many of the finds were Chalcolithic and included two glyphs.

122. 1947,0501.88
Excavation no: Koz 122
Site: Kozagaran
Context: secondary
Acquisition: excavated by a team led by Auriel Stein
Dimensions: 20 x 19.1 x 8.5mm (complete)
Weight: 5g
Material: stone
Shape: circular stamp glyph with dome profile
Design: centralising reflected quadrants
Phase: Chalcolithic, dating *c.* 5000–4000 BC
Parallels and remarks: This object has some damage to the surface of the face, though not enough to obscure the design. It has parallels in design in accordance with glyphs from Djaffarabad (Djf 305.1), Girairan (GI-001) and Susa (MT 408 (4)).
Publications: Stein 1940, p. 204 and pl. VIII.17

123. 1947,0501.89
Excavation no: Koz 110
Site: Kozagaran

Context: secondary
Acquisition: excavated by a team led by Auriel Stein
Dimensions: 29.2 x 15.7 x 12.7mm (broken)
Weight: 8g
Material: stone
Shape: circular stamp glyph with dome profile
Design: unclear
Phase: Chalcolithic, dating *c.* 5000–4000 BC
Parallels and remarks: This object has been broken along the plane of the piercing, after which the object was partially re-drilled through the broken suspension and the opposite side visible as an indent on the top left of the photo. This attempt did not pierce the object. Less than half the design is preserved but what remains resembles a glyph from Susa (MT 802) and a glyph impression from Tepe Gawra (G7-172).
Publications: Stein 1940, p. 204 and pl. VIII.18

Nineveh (36°21'34.2"N 43°09'08.4"E)
Nineveh is one of the most famous Middle Eastern sites. Located on the eastern bank of the Tigris in what is now Mosul it is a tell site with loosely continuous occupation from at least 6000 BC. It has been excavated numerous times by a number of teams beginning with that led by Austin Henry Layard in the mid-1840s. The glyph and impressed objects here come from the excavations directed by Campbell Thompson between 1927 and 1932. Though no exact provenance is known, they possibly came from Mallowan's deep sounding as Campbell Thompson's excavations did not generally reach Chalcolithic levels.

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124. 1932,1212.100
Excavation no: unknown
Site: Nineveh
Context: secondary
Acquisition: excavated by a team led by Reginald Campbell Thompson
Dimensions: 45 x 34.5 x 15.7mm (broken)
Weight: 14g
Material: clay
Impressed object type: impressed sealing with string
Number of impressions: one
Impression shape: circular
Impression design: naturalistic
Phase: Late Ubaid, dating *c.* 4500–4000 BC
Parallels and remarks: This impressed sealing is broken and it is therefore unclear what its original type might have been. It has a singular impression of a glyph with a quadruped looking over its shoulder and a bird above its back. No contextual information is available for this object but based on the appearance it is likely to be Late Ubaid.
Publications: unpublished

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125. 1932,1212.101
Excavation no: unknown
Site: Nineveh
Context: secondary
Acquisition: excavated by a team led by Reginald Campbell Thompson
Dimensions: 41.9 x 31.7 x 13.9mm (broken)
Weight: 13.5g
Material: clay
Impressed object type: unclear
Number of impressions: two on two glyphs
Impression shape 1: hand?
Impression shape 2: rectangular
Impression design 1: shell?
Impression design 2: blank
Phase: Late Neolithic or Chalcolithic, dating *c.* 7000–3200 BC
Parallels and remarks: This impressed object has no preserved reverse. It has a pair of impressions, a blank rectangular one and a possibly hand-shaped one with five 'digits'. Neither are typologically distinctive and while it is likely Late Neolithic or Chalcolithic it is impossible to say. The blank impression appears to have never had a design suggesting that it was impressed with a blank object.
Publications: unpublished

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126. 1932,1212.1172
Excavation no: unknown
Site: Nineveh
Context: tertiary
Acquisition: excavated by a team led by Reginald Campbell Thompson
Dimensions: 32.9 x 18.9 x 10.3mm (complete)
Weight: 8.5g
Material: stone
Shape: oval stamp glyph with gable profile
Design: centralising lines
Phase: Late Ubaid? Dating *c.* 4500–4000 BC
Parallels and remarks: The gabled form of this glyph is

not matched by its design. Gabled glyphs normally date to the 5th millennium BC onwards whereas this design is typically pre-5th millennium BC. The combination of the two suggests an early Late Ubaid date for this glyph. With no contextual information it is difficult to elucidate this further. It may be similar to the glyptic from Değirmentepe (Esin 1994) which appears to show a transitional period between geometric Late Neolithic glyphs and naturalistic 5th-millennium BC glyphs. See discussion in Cat. 90 regarding the material.
Publications: unpublished

Nimrud
See p. 77

127. 1994,1105.244
Excavation no: ND. 3295
Site: Nimrud
Context: secondary ('found in rubbish from foot of PD 5')
Acquisition: excavated by a team led by Max Mallowan
Dimensions: 23 x 20.8 x 5.7mm (complete)
Weight: 3.5g
Material: stone
Shape: oval stamp glyph with gable profile
Design: unclear, naturalistic?
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: The design on this glyph is unclear; the top suggests antlers whereas the bottom half looks more geometric. The typical gabled form indicates a Late Ubaid or Late Chalcolithic period but it is hard to say more.
Publications: unpublished

128. N.1351
Excavation no: unknown
Site: Nimrud
Context: tertiary
Acquisition: excavated by a team led by Austen Henry Layard
Dimensions: 21.4 x 19.4 x 7.2mm (complete)
Weight: 3.5g
Material: stone
Shape: oval stamp glyph with gable profile
Design: naturalistic
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: This stamp glyph shows heavy wear on one side of the suspension suggesting a long use-life, possibly suggesting a secondary use-life that could explain its discovery by Layard's team. The form and design are typically Chalcolithic although the quadruped suggests an unusual amount of movement.
Publications: unpublished

Tal-i-Pir (27°42'55.7"N 52°40'57.7"E)
Tal-i-Pir is a small tell site about 200km south of Shiraz. It was visited by Stein (Stein 1937, 221–3) during his expedition of the Indus Valley and south-east Iran in 1931–3. The site rose about 19ft above the plain and a significant proportion of the site was covered with Islamic graves. Stein excavated a pair of trenches on the south-eastern edge of the site away from the graves and found a range of Chalcolithic material including two stamp glyphs, one of which is published here.

129. 1937,0313.71
Excavation no: Har I.6
Site: Tal-i-Pir
Context: secondary
Acquisition: excavated by Auriel Stein
Dimensions: 27.7 x 27.2 x 8mm (broken)
Weight: 5.5g
Material: stone
Shape: circular stamp glyph with flat profile
Design: centralising lines
Phase: Chalcolithic, dating *c.* 5000–4000 BC
Parallels and remarks: There is extensive damage to the rear of this glyph where most of the suspension loop has worn off. It appears the central piercing was used as a method of suspension, presumably after the rear suspension broke but it is not clear if the central piercing is original. The object has numerous parallels from Tall-e Bakun (33, 39, 349, 558); Cat. 31 was also re-drilled through the face of the glyph.
Publications: Stein, 1937, p. 221 and pl. XXX

Tal-i-Regi (28°44'38.6"N 53°50'23.2"E)
Tal-i-Regi is a small tell site about 150km south east of Shiraz. It was visited by Stein (1936, 127–9) during his expedition to Fars province in 1933–4. Stein excavated a single trench that was 6ft wide but dug in 13 sections to a total length of 232ft. A large number of Chalcolithic material was excavated, including three stamp glyphs, one of which is published here.

130. 1937,1011.249
Excavation no: T R Kam xii 62-4ft
Site: Tal-i-Regi
Context: secondary
Acquisition: excavated by Auriel Stein
Dimensions: 23.4 x 16.1 x 8.9mm (complete)
Weight: 3g
Material: stone
Shape: rectangular stamp glyph with gabled bowled profile
Design: quadrilateral cross-hatching
Phase: Chalcolithic, dating *c.* 5000–4000 BC
Parallels and remarks: This object has areas of loss on the side and reverse. Cross-hatched designs are rarer in Iran than in Mesopotamia as centralising designs seem to have been preferred in Chalcolithic Iran. However, there are parallels from Tall-e Bakun (52), Tepe Giyan (GY-001), Tall-i-Nokhodi (NI-001) and Susa (Sb 915, Sb 935, MT 408 (11)).
Publications: Stein 1936, p. 128 and pl. XX.27

Telyab (34°12'05.5"N 47°40'53.6"E)
Telyab is a tell site around 60km to the west of the city of Nahavand in western Iran. It was visited by Stein (1940, 304–8) during his expedition to western Iran in 1935–6. The site was roughly circular and rose to about 62ft above the plain. Stein conducted a small excavation but also bought a number of objects from villagers (Stein 1940, 307) in the hamlet located on the south part of the mound which included three stamp glyphs.

131. 1947,0501.221
Excavation no: unknown
Site: Telyab
Context: tertiary
Acquisition: collected by Auriel Stein
Dimensions: 15.8 x 15.6 x 11mm (complete)
Weight: 2g
Material: baked clay
Shape: circular stamp glyph with cone profile
Design: centralising chevrons
Phase: Chalcolithic, dating *c.* 5000–4000 BC
Parallels and remarks: This object has some damage around the suspension. Chevrons are common in Iran but normally with more than one chevron in each quadrant. However there are still numerous parallels, for example glyphs from Tepe Giyan (TG2386, TG2389), Tepe Hissar (H333, H4535), Sialk (S.85) and Susa (Sb 914, Sb 5682).
Publications: Stein 1940, p. 307 and pl. XIX.6

132. 1947,0501.222
Excavation no: unknown
Site: Telyab
Context: tertiary
Acquisition: collected by Auriel Stein
Dimensions: 15.3 x 14.8 x 6.4mm (complete)
Weight: 1.5g
Material: stone
Shape: circular stamp glyph with lentoid profile
Design: centralising quadrants
Phase: Chalcolithic, dating *c.* 5000–4000 BC
Parallels and remarks: This object form is quite typical. The general design style is common with parallels from Tepe Bendebal (Sb 5879), Tepe Giyan (TG2387, GY-002), Tepe Hissar (H4392), Sialk (S.259) and Susa (Sb 931, Sb 6098). However, the cross-hatched panels are more unusual as most of the quadrants are made solely from hatched lines.
Publications: Stein 1940, p. 307 and pl. XIX.7

133. 1947,0501.223
Excavation no: unknown
Site: Telyab
Context: tertiary
Acquisition: collected by Auriel Stein
Dimensions: 14.3 x 14.2 x 5.4mm (broken)
Weight: 1.5g
Material: stone
Shape: circular stamp glyph with bowled profile
Design: centralising square and lines
Phase: Chalcolithic, dating *c.* 5000–4000 BC
Parallels and remarks: This object's suspension has a very worn break which appears to have been ground down after breaking, leaving a flat smooth surface on each side. One of the sides is also chipped. The design and form have

numerous parallels, for example glyphs from Tepe Giyan (TG2345), Tepe Hissar (H2051), Kozagaran (KZ-001) and Susa (Sb 5613, MT 205 (30))
Publications: Stein 1940, p. 307 and pl. XIX.8

Tepe Giyan (34°10'53.8"N 48°14'37.3"E)
Tepe Giyan is a tell site about 12km south west of the town of Nahavand in western Iran. The site was occupied in the Chalcolithic period, the 5th and 4th millennia BC, and then again from around the end of the 3rd millennium BC. The site was excavated by a team led by George Contenau and Roman Ghirshman in 1931 and 1932, but the British Museum's collection come from Ernst Herzfeld. Herzfeld did not excavate Giyan, but visited it in 1928 and purchased objects from villagers at the site and the nearby market town of Nahavand. It has been suggested that the glyphs were not obtained at Giyan largely because of Herzfeld's complicated personal legacy. I follow the argument of Cool Root (2000, 33) that in this case the objects are from Giyan but with the proviso that there was little stratigraphic control (Henrickson 1988, 1) and by extension many of the objects are probably Chalcolithic, but not definitively. As such I have divided the glyphs into two groups: Chalcolithic (5th millennium BC) and Late Chalcolithic (4th millennium BC).

134. 1936,0613.38
Excavation no: T.G.2373
Site: Tepe Giyan
Context: tertiary
Acquisition: found/purchased by Ernst Herzfeld
Dimensions: 53.7 x 33.8 x 15.8mm (complete)
Weight: 63g
Material: stone
Shape: rectangular stamp glyph with flat profile
Design: naturalistic
Phase: Late Chalcolithic, dating *c.* 4000–3000 BC
Parallels and remarks: This object is large and has an unusual design. One side shows two opposed horned quadrupeds with smaller animals (dogs?) above their backs. The second side shows two or three central human figures, two of which are horned, with animals (dogs?) at either end. The individual motifs are found on other glyphs, but rare in combination with no close parallels as horned humanoids are unusual in this period.
Publications: Herzfeld 1933, fig. 25

135. 1936,0613.39
Excavation no: T.G.2505
Site: Tepe Giyan
Context: tertiary
Acquisition: found/purchased by Ernst Herzfeld
Dimensions: 36.7 x 31.5 x 12.7mm (complete)
Weight: 28.5g
Material: stone
Shape: rectangular stamp glyph with flat profile
Design: naturalistic
Phase: Late Chalcolithic, dating *c.* 4000–3000 BC
Parallels and remarks: This object has two sides, the left image shows four horned animal's heads above a hurdl or possibly in an enclosure. The right image has a horned humanoid with a snake behind and extensive filling motifs. The left has no parallels I am aware of. The right is in the same tradition, though not exact style, as Cat. 136 and Cat. 140, and has few parallels for the total image.
Publications: Herzfeld 1933, fig. 25

136. 1936,0613.40
Excavation no: T.G.2340
Site: Tepe Giyan
Context: tertiary
Acquisition: found/purchased by Ernst Herzfeld
Dimensions: 33.6 x 25.5 x 7.7mm (complete)
Weight: 15g
Material: stone
Shape: rectangular stamp glyph with flat profile
Design: naturalistic
Phase: Late Chalcolithic, dating *c.* 4000–3000 BC
Parallels and remarks: This object has two sides and reflects heavy wear at the suspension. The left image depicts a humanoid holding two snakes, while the right image shows a pair of crossing lines, possibly snakes. The left side presumably represents an early version of the 'master of animals' motif; parallels of this motif are present, albeit a lot more detailed, at Susa (784.1, Sb 2048, Sb 2247, Sb 2050).
Publications: Herzfeld 1933, fig. 25

137. 1936,0613.41
Excavation no: T.G.2330
Site: Tepe Giyan
Context: tertiary
Acquisition: found/purchased by Ernst Herzfeld
Dimensions: 45.0 x 44.1 x 16.7mm (complete)
Weight: 54g
Material: stone
Shape: circular stamp glyph with dome profile
Design: naturalistic
Phase: Late Chalcolithic, dating *c.* 4000–3000 BC
Parallels and remarks: This object shows a horned and bearded quadruped surrounded by a snake with a plant motif behind its back. It is a common motif from Tepe Giyan (TG 2339, TG 2348, TG 2351, TG 2508, TG 2690, GY-004, Cat. 145) and rarer elsewhere, though there is a heavily worn example from Susa (MT 205(17)). There are also wider parallels from across Mesopotamia, such as a glyph from Tarsus (TS1) though the border there resembles a plant more than a snake.
Publications: Herzfeld 1933, fig. 22

138. 1936,0613.42
Excavation no: T.G.2503
Site: Tepe Giyan
Context: tertiary
Acquisition: found/purchased by Ernst Herzfeld
Dimensions: 48.7 x 45.2 x 12.4mm (complete)
Weight: 47.5g
Material: stone
Shape: circular stamp glyph with dome profile
Design: naturalistic
Phase: Late Chalcolithic, dating *c.* 4000–3000 BC
Parallels and remarks: This very finely carved glyph shows a male lion attacking a quadruped (goat?) with a snake above the lion. While there are few so finely carved designs, there are a number of parallels from Susa (Sb 882, Sb 888, Sb 2334).
Publications: Herzfeld 1933, fig. 22

139. 1936,0613.43
Excavation no: none
Site: Nahavand
Context: tertiary
Acquisition: purchased by Ernst Herzfeld
Dimensions: 45.1 x 44.8 x 16.3mm (broken)
Weight: 48g
Material: stone
Shape: circular stamp glyph with dome profile
Design: naturalistic
Phase: Late Chalcolithic, dating *c.* 4000–3000 BC
Parallels and remarks: This object has worn damage to the lower right side. As it was purchased in Nahavand it is unclear whether this objects was damaged and worn in antiquity or through a secondary reuse. See Cat. 138 for parallels as it has the same type of design and form, although this glyph's design is somewhat more rudimentary.
Publications: Herzfeld 1933, fig. 22

140. 1936,0613.44
Excavation no: T.G.2331
Site: Tepe Giyan
Context: tertiary
Acquisition: found/purchased by Ernst Herzfeld
Dimensions: 40.3 x 39.9 x 14.6mm (complete)
Weight: 36.5g
Material: stone
Shape: circular stamp glyph with dome profile
Design: naturalistic
Phase: Late Chalcolithic, dating *c.* 4000–3000 BC
Parallels and remarks: This object displays a horned or cranially deformed humanoid holding a snake. There is damage to the object at one end, visible in profile picture. A similar humanoid is in Cat. 136 and it is a form of representation common in Iran, for which see discussion in Daems and Croucher 2007.
Publications: Herzfeld 1933, fig. 24

141. 1936,0613.45
Excavation no: T.G.2381
Site: Tepe Giyan
Context: tertiary
Acquisition: found/purchased by Ernst Herzfeld
Dimensions: 39.5 x 40.7 x 11.4mm (complete)
Weight: 16.5g
Material: stone
Shape: circular stamp glyph with flat profile
Design: quadrilateral cross-hatching
Phase: Late Chalcolithic, dating *c.* 4000–3000 BC
Parallels and remarks: The material of this glyph is rare; as mentioned in Cat. 130, cross-hatching is relatively uncommon in Iran but the form and design have a number of parallels from Susa (Sb 5492, Sb 913, Sb 5470, MT 437 (N 105)).
Publications: Herzfeld 1933, fig. 14

142. 1936,0613.46
Excavation no: T.G.2682
Site: Tepe Giyan
Context: tertiary
Acquisition: found/purchased by Ernst Herzfeld
Dimensions: 36.9 x 36.4 x 15.1mm (complete)
Weight: 30g
Material: stone
Shape: circular stamp glyph with dome profile
Design: centralising hatched cross with peripheral lines
Phase: Chalcolithic, dating *c.* 5000–4000 BC
Parallels and remarks: This object's closest parallel is from Tell Brak (Cat. 106) although there is also a similar seal from Susa (S.72). Thematically it has general parallels with a number of other glyph types such as Cat. 143 and the parallels listed there.
Publications: Herzfeld 1933, fig. 16

143. 1936,0613.47
Excavation no: T.G.2683
Site: Tepe Giyan
Context: tertiary
Acquisition: found/purchased by Ernst Herzfeld
Dimensions: 38.6 x 34.8 x 13.4mm (complete)
Weight: 27g
Material: stone
Shape: circular stamp glyph with dome profile
Design: centralising wedged cross
Phase: Chalcolithic, dating *c.* 5000–4000 BC
Parallels and remarks: This object has quite a typical form and design with parallels from Tall-e Bakun (565) and Susa (Sb 909, Sb 919, MT 205 (16)). It is also similar to a glyph from Arpachiyah (Cat. 96) and a couple from Tepe Gawra (G7-80, G7-172). This example, along with the similarities in Cat. 142, point to some interaction between the glyptics of Iran and Mesopotamia in the 5th millennium BC at a time of cultural differences.
Publications: Herzfeld 1933, fig. 16

144. 1936,0613.48
Excavation no: T.G.2383
Site: Tepe Giyan
Context: tertiary
Acquisition: found/purchased by Ernst Herzfeld
Dimensions: 32.5 x 31.9 x 14.4mm (complete)
Weight: 14.5g
Material: stone
Shape: circular stamp glyph with bowled profile
Design: centralising chevrons
Phase: Chalcolithic, dating *c.* 5000–4000 BC
Parallels and remarks: This object has a very typically Chalcolithic western Iranian design that Caldwell (1976, 234) calls the 'Luristan Cross'. It has parallels from Tall-e Bakun (BK-001), Tepe Hissar (H4601), Seh Gabi (SG73-180), Sialk (S.85) and Susa (Sb 907, Sb 921, Sb 5564).
Publications: Herzfeld 1933, fig. 14

145. 1936,0613.49
Excavation no: T.G.2667
Site: Tepe Giyan
Context: tertiary
Acquisition: found/purchased by Ernst Herzfeld
Dimensions: 32.8 x 32.8 x 14.5mm (complete)
Weight: 15g
Material: stone
Shape: circular stamp glyph with bowled profile
Design: naturalistic
Phase: Chalcolithic, dating *c.* 5000–4000 BC
Parallels and remarks: This object is superficially similar to Cat. 137 with the horned quadruped surrounded by a 'snake' and the same discussions apply. The style is different and much more stylised.
Publications: Herzfeld 1933, fig. 14

146. 1936,0613.50
Excavation no: T.G.2382
Site: Tepe Giyan
Context: tertiary
Acquisition: found/purchased by Ernst Herzfeld
Dimensions: 36.9 x 34.6 x 7.8mm (broken)
Weight: 9g
Material: stone
Shape: circular stamp glyph with bowled profile
Design: irregular (damaged)
Phase: Chalcolithic, dating *c.* 5000–4000 BC
Parallels and remarks: This object has extensive damage to the face and reverse. The front of the design has been broken off, the suspension almost completely removed, with various other areas of loss, visible at the bottom and top left of the photo. The central piercing looks to be a later addition and might explain the damage to the face. The deeply incised design is also relatively rare but has parallels on impressions from Tall-e Bakun (347, 29+30).
Publications: Herzfeld 1933, fig. 14

147. 1936,0613.52
Excavation no: T.G.2686
Site: Tepe Giyan
Context: tertiary
Acquisition: found/purchased by Ernst Herzfeld
Dimensions: 55.9 x 28.2 x 14.1mm (complete)
Weight: 20g
Material: stone
Shape: irregular stamp glyph with lentoid profile
Design: divided lines
Phase: Chalcolithic, dating *c.* 5000–4000 BC
Parallels and remarks: This object has a very unusual and somewhat irregular appearance; it appears that various points on the two arms were originally longer. There are few parallels though there is a seal from Seh Gabi (SG73-100) with the same form and design but only 15 x 14mm in size.
Publications: Herzfeld 1933, fig. 13

148. 1936,0613.53
Excavation no: T.G.2402
Site: Tepe Giyan
Context: tertiary
Acquisition: found/purchased by Ernst Herzfeld
Dimensions: 32.9 x 15.7 x 9.6mm (complete)
Weight: 4.5g
Material: stone
Shape: irregular stamp glyph with lentoid profile
Design: divided lines
Phase: Chalcolithic, dating *c.* 5000–4000 BC
Parallels and remarks: This object has an unusual form which has been suggested to resemble a fly or hoof. There are parallels in the form and design from other glyphs from Tepe Giyan (TG 2403 and GY-003) but not more generally.
Publications: Herzfeld 1933, fig. 13

149. 1936,0613.54
Excavation no: T.G.2392
Site: Tepe Giyan
Context: tertiary
Acquisition: found/purchased by Ernst Herzfeld
Dimensions: 26.0 x 23.5 x 6.9mm (complete)
Weight: 3.5g
Material: stone
Shape: triangular stamp glyph with lentoid profile
Design: quadrilateral cross-hatching
Phase: Chalcolithic, dating *c.* 5000–4000 BC
Parallels and remarks: This object has a regular but unusual face shape as most Chalcolithic Iranian glyphs have square/rectangular to circular/oval faces. The profile is typical of the type and the design is found, though not especially common. For parallels to the design see Cat. 130. There are parallels to the shape in a pair of impressions from Tall-e Bakun (23, 3457).
Publications: Herzfeld 1933, fig. 13

Tilbeşar
See p. 76

150. 1908,0613.1
Excavation no: none
Site: Tilbeşar
Context: secondary
Acquisition: purchased by David George Hogarth
Dimensions: 10.1 x 5.5 x 12.9mm (complete)
Weight: 1g
Material: stone
Shape: rectangular stamp glyph with blunt cone profile
Design: irregular lines
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: This object's shape is common for the Chalcolithic but the design is very ephemeral and may have largely worn off.
Publications: unpublished

151. 1908,0613.4
Excavation no: none
Site: Tilbeşar
Context: secondary
Acquisition: purchased by David George Hogarth
Dimensions: 14.4 x 12.5 x 7.3mm (complete)
Weight: 2g
Material: stone
Shape: oval stamp glyph with dome profile
Design: centralising claws
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: This object has a common shape typical for the Ubaid and Late Chalcolithic but an unusual design. There are similarities with Cat. 154 which is itself similar to an unstratified glyph from Dhahab (D50).
Publications: unpublished

152. 1908,0613.5
Excavation no: none
Site: Tilbeşar
Context: secondary
Acquisition: purchased by David George Hogarth
Dimensions: 21.1 x 15.4 x 6.6mm (complete)
Weight: 3.5g
Material: stone
Shape: rectangular stamp glyph with gable profile
Design: naturalistic
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: This glyph has a common Late Ubaid or Late Chalcolithic gable type profile and naturalistic design showing a horned goat-like animal with two filling motifs in front of the legs. Many parallels exist, but see Cat. 110 for a very similar seal with five legs and no filling motifs.
Publications: unpublished

153. 1908,0613.6
Excavation no: none
Site: Tilbeşar
Context: secondary
Acquisition: purchased by David George Hogarth
Dimensions: 20.3 x 20.6 x 6mm (complete)

Weight: 4.5g
Material: stone
Shape: rectangular stamp glyph with gable profile
Design: centralising claws
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: As with Cat. 152 this glyph has a common form but unusual design. Its only clearly provenanced parallel is an unstratified glyph from Dhahab (D50).
Publications: unpublished

154. 1908,0613.7
Excavation no: none
Site: Tilbeşar
Context: secondary
Acquisition: purchased by David George Hogarth
Dimensions: 27.5 x 22.4 x 9.3mm (broken)
Weight: 8.5g
Material: stone
Shape: rectangular stamp glyph with gable profile
Design: naturalistic
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: The quality of the workmanship, the light stone and both filling motifs and multiple ages of animal make this otherwise typical naturalistic gable glyph unusual. I have found no exact parallels of these features although the overall form is very common.
Publications: unpublished

155. 1908,0613.8
Excavation no: none
Site: Tilbeşar
Context: secondary
Acquisition: purchased by David George Hogarth
Dimensions: 25.4 x 23.4 x 7.9mm (complete)
Weight: 7g
Material: stone
Shape: oval stamp glyph with gable profile
Design: naturalistic
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: The form of this glyph is typologically Late Ubaid or Late Chalcolithic but the design is unusual. While clearly naturalistic the specific animal is indeterminate and without distinct parallel, though similar forms are known from Tepe Gawra (e.g. Tobler 1950, pl. CLXVI. 118).
Publications: unpublished

156. 1908,0613.10
Excavation no: none
Site: Tilbeşar
Context: secondary
Acquisition: purchased by David George Hogarth
Dimensions: 29.0 x 29.1 x 9.2mm (complete)
Weight: 11.5g
Material: stone
Shape: rectangular stamp glyph with gable profile
Design: naturalistic
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: A typologically Late Ubaid or Late Chalcolithic naturalistic gable glyph although the design is both more rough and schematic than is common.
Publications: unpublished

157. 1908,0613.11
Excavation no: none
Site: Tilbeşar
Context: secondary
Acquisition: purchased by David George Hogarth
Dimensions: 20.4 x 25.5 x 7.4mm (broken)
Weight: 5.5g
Material: stone
Shape: rectangular stamp glyph with gable profile
Design: naturalistic
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: The damage sustained by this

glyph makes identifying the design difficult although the shape is typologically gabled. The design may show a pair of antlers or one or more stylised animals. The wear visible in the profile likely dates to its secondary use as an amulet or jewellery by the previous owners from whom Hogarth purchased the glyphs.
Publications: unpublished

158. 1908,0613.12
Excavation no: none
Site: Tilbeşar
Context: secondary
Acquisition: purchased by David George Hogarth
Dimensions: 22.3 x 21.0 x 5.5mm (complete)
Weight: 4.5g
Material: stone
Shape: square stamp glyph with lentoid profile
Design: unclear
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: This lentoid glyph has a form that is also common in the Late Ubaid or Late Chalcolithic (e.g. Tepe Gawra (G4-605, G6-323) but the design is too heavily worn to reconstruct; this wear is likely post-depositional as with Cat. 157.
Publications: unpublished

159. 1908,0613.13
Excavation no: none
Site: Tilbeşar
Context: secondary
Acquisition: purchased by David George Hogarth
Dimensions: 19.9 x 21.0 x 5.4mm (complete)
Weight: 3.5g
Material: stone
Shape: square stamp glyph with lentoid profile
Design: unclear
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: Similar to Cat. 157 this glyph has a heavily worn design and lentoid profile. From the traced remains, most visible on the right hand side of the glyph, it may have had a centralising chevron design.
Publications: unpublished

160. 1908,0613.17
Excavation no: none
Site: Tilbeşar
Context: secondary
Acquisition: purchased by David George Hogarth
Dimensions: 9.5 x 7.9 x 16.0mm (complete)
Weight: 2g
Material: stone
Shape: square stamp glyph with blunt cone profile
Design: divided lines
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: Typologically this glyph form and design are ambiguous and could date to almost any period from the Late Chalcolithic to the Iron Age. It is likely to be Late Chalcolithic given many of the others from Tilbeşar are.
Publications: unpublished

161. 1908,0613.47
Excavation no: none
Site: Tilbeşar
Context: secondary
Acquisition: purchased by David George Hogarth
Dimensions: 25.7 x 16.6 x 11.1mm (complete)
Weight: 7g
Material: stone
Shape: rectangular stamp glyph with gable profile
Design: naturalistic
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: While the design is quite schematic and the red stone uncommon this is otherwise a very typical gabled glyph with naturalistic design.
Publications: unpublished

162. 1908,0613.82
Excavation no: none
Site: Tilbeşar
Context: secondary
Acquisition: purchased by David George Hogarth
Dimensions: 8.8 x 6.6 x 12.6mm (complete)
Weight: 1g
Material: stone
Shape: square stamp glypth with blunt cone profile
Design: divided lines
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: Like Cat. 160 this glyph is stylistically and typologically ambiguous. In contrast to that one however, the relatively clear definition of the two incised lines suggest they could be a later addition, possibly an original design that has been completely worn down.
Publications: unpublished

163. 1908,0613.84
Excavation no: none
Site: Tilbeşar
Context: secondary
Acquisition: purchased by David George Hogarth
Dimensions: 12.4 x 10.2 x 20.4mm (complete)
Weight: 5.5g
Material: stone
Shape: oval stamp glyph with cylinder profile
Design: quadrilateral cross-hatching
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: The slightly tapering shape of this glyph is unusual and has no exact parallels although it is loosely similar to glyphs from Tell el-Kerkh (EK-041 and EK-060). The design is very common in the Late Neolithic, but the shape more common later. The design is also ephemeral and very lightly carved into the stone, possibly during secondary reuse but equally it could have been recurved.
Publications: unpublished

164. 1908,0613.99
Excavation no: none
Site: Tilbeşar
Context: secondary
Acquisition: purchased by David George Hogarth
Dimensions: 14.2 x 10.5 x 13.9mm (complete)
Weight: 3g
Material: stone
Shape: trapezoid stamp glyph with dome profile
Design: unclear
Phase: Late Ubaid or Late Chalcolithic, dating *c.* 4500–3200 BC
Parallels and remarks: This glyph is heavily worn and any remaining design has been largely obscured although the general shape is common in the Late Ubaid and Late Chalcolithic. Possibly naturalistic.
Publications: unpublished

Concordances

1. List of catalogue to British Museum registration numbers

Cat. 1	1908,0613.55
Cat. 2	1934,0210.336
Cat. 3	1934,0210.337
Cat. 4	1934,0210.338
Cat. 5	1934,0210.339
Cat. 6	1934,0210.340
Cat. 7	1934,0210.341
Cat. 8	1934,0210.342
Cat. 9	1934,0210.344
Cat. 10	1934,0210.345
Cat. 11	1934,0210.346
Cat. 12	1934,0210.347
Cat. 13	1934,0210.348
Cat. 14	1934,0210.349
Cat. 15	1934,0210.350
Cat. 16	1934,0210.351
Cat. 17	1934,0210.352
Cat. 18	1934,0210.353
Cat. 19	1934,0210.354
Cat. 20	1934,0210.355
Cat. 21	1934,0210.356
Cat. 22	1934,0210.357
Cat. 23	1934,0210.358
Cat. 24	1934,0210.367
Cat. 25	1934,0210.368
Cat. 26	1934,0210.369
Cat. 27	1934,0210.370
Cat. 28	1934,0210.371
Cat. 29	1934,0210.372
Cat. 30	1934,0210.373
Cat. 31	1934,0210.374
Cat. 32	1934,0210.375
Cat. 33	1934,0210.376
Cat. 34	1934,0210.377
Cat. 35	1934,0210.378
Cat. 36	1934,0210.380
Cat. 37	1934,0210.381
Cat. 38	1934,0210.383
Cat. 39	1934,0210.384
Cat. 40	1934,0210.385
Cat. 41	1934,0210.386
Cat. 42	1934,0210.389
Cat. 43	1938,0108.123
Cat. 44	1938,0108.132
Cat. 45	1951,0103.47
Cat. 46	1881,1103.1924
Cat. 47	1936,1216.173

Cat. 48	1937,1211.56
Cat. 49	1937,1211.93
Cat. 50	1938,0727.94
Cat. 51	1938,0727.100
Cat. 52	1938,0727.127
Cat. 53	1938,0727.132
Cat. 54	1938,0727.140
Cat. 55	1938,0727.141
Cat. 56	1935,1207.428
Cat. 57	1935,1207.429
Cat. 58	1935,1207.433
Cat. 59	1935,1207.436
Cat. 60	1935,1207.441
Cat. 61	1935,1207.444
Cat. 62	1936,1216.141
Cat. 63	1936,1216.143
Cat. 64	1936,1216.145
Cat. 65	1936,1216.146
Cat. 66	1936,1216.148
Cat. 67	1936,1216.149
Cat. 68	1936,1216.183
Cat. 69	1936,1216.187
Cat. 70	1934,0210.361
Cat. 71	1920,1211.472
Cat. 72	1920,1211.474
Cat. 73	1920,1211.512
Cat. 74	1920,1211.554
Cat. 75	1920,1211.517
Cat. 76	1936,1216.136
Cat. 77	1936,1216.138
Cat. 78	1936,1216.139
Cat. 79	1936,1216.140
Cat. 80	1936,1216.144
Cat. 81	1936,1216.147
Cat. 82	1936,1216.150
Cat. 83	1936,1216.151
Cat. 84	1936,1216.152
Cat. 85	1936,1216.254
Cat. 86	1936,1216.255
Cat. 87	1936,1216.142
Cat. 88	1908,0613.24
Cat. 89	1908,0613.89
Cat. 90	N.1362
Cat. 91	1994,1105.222
Cat. 92	1994,1105.461
Cat. 93	1927,1003.206
Cat. 94	1930,1213.138
Cat. 95	1933,1013.92

Cat. 96	1934,0210.379
Cat. 97	1934,0210.387
Cat. 98	1934,0210.388
Cat. 99	1934,0210.390
Cat. 100	1937,1211.147
Cat. 101	1937,1211.163
Cat. 102	1937,1211.165
Cat. 103	1938,0727.102
Cat. 104	1938,0727.114
Cat. 105	1938,0727.117
Cat. 106	1938,0727.119
Cat. 107	1938,0727.128
Cat. 108	1938,0727.273
Cat. 109	1939,0208.55
Cat. 110	1939,0208.68
Cat. 111	1939,0208.135
Cat. 112	1939,0208.137
Cat. 113	1947,0501.191
Cat. 114	1947,0501.152
Cat. 115	1937,1011.247
Cat. 116	1937,1011.248
Cat. 117	1947,0501.11588
Cat. 118	1920,1211.515
Cat. 119	1936,1216.137
Cat. 120	1936,1216.153
Cat. 121	1936,1216.179
Cat. 122	1947,0501.88
Cat. 123	1947,0501.89
Cat. 124	1932,1212.100
Cat. 125	1932,1212.101
Cat. 126	1932,1212.1172
Cat. 127	1994,1105.244
Cat. 128	N.1351
Cat. 129	1937,0313.71
Cat. 130	1937,1011.249
Cat. 131	1947,0501.221
Cat. 132	1947,0501.222
Cat. 133	1947,0501.223
Cat. 134	1936,0613.38
Cat. 135	1936,0613.39
Cat. 136	1936,0613.40
Cat. 137	1936,0613.41
Cat. 138	1936,0613.42
Cat. 139	1936,0613.43
Cat. 140	1936,0613.44
Cat. 141	1936,0613.45
Cat. 142	1936,0613.46
Cat. 143	1936,0613.47

Cat. 144	1936,0613.48
Cat. 145	1936,0613.49
Cat. 146	1936,0613.50
Cat. 147	1936,0613.52
Cat. 148	1936,0613.53
Cat. 149	1936,0613.54
Cat. 150	1908,0613.1
Cat. 151	1908,0613.4
Cat. 152	1908,0613.5
Cat. 153	1908,0613.6
Cat. 154	1908,0613.7
Cat. 155	1908,0613.8
Cat. 156	1908,0613.10
Cat. 157	1908,0613.11
Cat. 158	1908,0613.12
Cat. 159	1908,0613.13
Cat. 160	1908,0613.17
Cat. 161	1908,0613.47
Cat. 162	1908,0613.82
Cat. 163	1908,0613.84
Cat. 164	1908,0613.99

2. List of British Museum registration numbers to catalogue numbers

Cat. 46	1881,1103.1924
Cat. 150	1908,0613.1
Cat. 151	1908,0613.4
Cat. 152	1908,0613.5
Cat. 153	1908,0613.6
Cat. 154	1908,0613.7
Cat. 155	1908,0613.8
Cat. 156	1908,0613.10
Cat. 157	1908,0613.11
Cat. 158	1908,0613.12
Cat. 159	1908,0613.13
Cat. 160	1908,0613.17
Cat. 88	1908,0613.24
Cat. 161	1908,0613.47
Cat. 1	1908,0613.55
Cat. 162	1908,0613.82
Cat. 163	1908,0613.84
Cat. 89	1908,0613.89
Cat. 164	1908,0613.99
Cat. 71	1920,1211.472
Cat. 72	1920,1211.474
Cat. 73	1920,1211.512
Cat. 118	1920,1211.515
Cat. 75	1920,1211.517
Cat. 74	1920,1211.554
Cat. 93	1927,1003.206
Cat. 94	1930,1213.138
Cat. 124	1932,1212.100
Cat. 125	1932,1212.101
Cat. 126	1932,1212.1172
Cat. 95	1933,1013.92
Cat. 2	1934,0210.336
Cat. 3	1934,0210.337
Cat. 4	1934,0210.338
Cat. 5	1934,0210.339
Cat. 6	1934,0210.340
Cat. 7	1934,0210.341
Cat. 8	1934,0210.342
Cat. 9	1934,0210.344
Cat. 10	1934,0210.345
Cat. 11	1934,0210.346
Cat. 12	1934,0210.347
Cat. 13	1934,0210.348
Cat. 14	1934,0210.349
Cat. 15	1934,0210.350
Cat. 16	1934,0210.351
Cat. 17	1934,0210.352
Cat. 18	1934,0210.353
Cat. 19	1934,0210.354
Cat. 20	1934,0210.355
Cat. 21	1934,0210.356
Cat. 22	1934,0210.357
Cat. 23	1934,0210.358
Cat. 70	1934,0210.361
Cat. 24	1934,0210.367
Cat. 25	1934,0210.368
Cat. 26	1934,0210.369
Cat. 27	1934,0210.370
Cat. 28	1934,0210.371
Cat. 29	1934,0210.372
Cat. 30	1934,0210.373
Cat. 31	1934,0210.374
Cat. 32	1934,0210.375
Cat. 33	1934,0210.376
Cat. 34	1934,0210.377
Cat. 35	1934,0210.378
Cat. 96	1934,0210.379
Cat. 36	1934,0210.380
Cat. 37	1934,0210.381
Cat. 38	1934,0210.383
Cat. 39	1934,0210.384
Cat. 40	1934,0210.385

Cat. 41	1934,0210.386
Cat. 97	1934,0210.387
Cat. 98	1934,0210.388
Cat. 42	1934,0210.389
Cat. 99	1934,0210.390
Cat. 56	1935,1207.428
Cat. 57	1935,1207.429
Cat. 58	1935,1207.433
Cat. 59	1935,1207.436
Cat. 60	1935,1207.441
Cat. 61	1935,1207.444
Cat. 134	1936,0613.38
Cat. 135	1936,0613.39
Cat. 136	1936,0613.40
Cat. 137	1936,0613.41
Cat. 138	1936,0613.42
Cat. 139	1936,0613.43
Cat. 140	1936,0613.44
Cat. 141	1936,0613.45
Cat. 142	1936,0613.46
Cat. 143	1936,0613.47
Cat. 144	1936,0613.48
Cat. 145	1936,0613.49
Cat. 146	1936,0613.50
Cat. 147	1936,0613.52
Cat. 148	1936,0613.53
Cat. 149	1936,0613.54
Cat. 76	1936,1216.136
Cat. 119	1936,1216.137
Cat. 77	1936,1216.138
Cat. 78	1936,1216.139
Cat. 79	1936,1216.140
Cat. 62	1936,1216.141
Cat. 87	1936,1216.142
Cat. 63	1936,1216.143
Cat. 80	1936,1216.144
Cat. 64	1936,1216.145
Cat. 65	1936,1216.146
Cat. 81	1936,1216.147
Cat. 66	1936,1216.148
Cat. 67	1936,1216.149
Cat. 82	1936,1216.150
Cat. 83	1936,1216.151
Cat. 84	1936,1216.152
Cat. 120	1936,1216.153
Cat. 47	1936,1216.173
Cat. 121	1936,1216.179
Cat. 68	1936,1216.183
Cat. 69	1936,1216.187
Cat. 85	1936,1216.254
Cat. 86	1936,1216.255
Cat. 129	1937,0313.71
Cat. 115	1937,1011.247
Cat. 116	1937,1011.248
Cat. 130	1937,1011.249
Cat. 48	1937,1211.56
Cat. 49	1937,1211.93
Cat. 100	1937,1211.147
Cat. 101	1937,1211.163
Cat. 102	1937,1211.165
Cat. 43	1938,0108.123
Cat. 44	1938,0108.132
Cat. 50	1938,0727.94
Cat. 51	1938,0727.100
Cat. 103	1938,0727.102
Cat. 104	1938,0727.114
Cat. 105	1938,0727.117
Cat. 106	1938,0727.119
Cat. 52	1938,0727.127
Cat. 107	1938,0727.128
Cat. 53	1938,0727.132
Cat. 54	1938,0727.140
Cat. 55	1938,0727.141
Cat. 108	1938,0727.273
Cat. 109	1939,0208.55
Cat. 110	1939,0208.68
Cat. 111	1939,0208.135
Cat. 112	1939,0208.137
Cat. 122	1947,0501.88
Cat. 123	1947,0501.89
Cat. 114	1947,0501.152
Cat. 113	1947,0501.191
Cat. 131	1947,0501.221
Cat. 132	1947,0501.222
Cat. 133	1947,0501.223
Cat. 117	1947,0501.11588
Cat. 45	1951,0103.47
Cat. 91	1994,1105.222
Cat. 127	1994,1105.244
Cat. 92	1994,1105.461
Cat. 128	N.1351
Cat. 90	N.1362

3. References to other glyphs in the text

Parallels to the catalogue entries are referred to with an excavation/depot number or artificial number. The following concordance provides references for these parallels.

Parallel	Cat. number	Reference
Atchana		
A03-R1009	1, 73	Collon 2010, p. 90 and fig. 7.1.1a–d
Arpachiyah		
A.2	92	Mallowan and Rose 1935, pl. VIII(a), pl. VI(a) and fig. 50.8
A.573	56	Mallowan and Rose 1935, pl. VII(a)
53/436	63	Mallowan and Rose 1935, pl. VII(a)
53/438	21	Mallowan and Rose 1935, pl. VII(b): (as FN 370)
53/441	6	Mallowan and Rose 1935, pl. VIII(a) and fig. 50.9
53/458	6	Mallowan and Rose 1935, pl. VIII(a))
53/467	38, 39, 42	Three objects; von Wickede 1991, nos 25, 27, 30
53/480	47	Unpublished, see http://www.shdenham.co.uk/
53/1324	38, 39, 42	Two objects. von Wickede 1991, nos 51, 52
53/1325	38, 39, 42	von Wickede 1991, no. 26
B14991	50	Mallowan and Rose 1935, pl. VIII(a)
B14994	9, 84, 85, 90	Mallowan and Rose 1935, p. 43
B14997	81	Mallowan and Rose 1935, pl. VIII(a)
B15000	92	Mallowan and Rose 1935, pl. VIII(a), pl. VI(a) and fig. 50.7
B15003	81	Mallowan and Rose 1935, pl. VIII(a)
B15008	20, 22, 23	Mallowan and Rose 1935, pl. VII(b), pl. VI(a) and fig. 50.25
B15012	89	Mallowan and Rose 1935, pl. VII(a)
B15013	81	Mallowan and Rose 1935, pl. VIII(a)
B15017	7	Mallowan and Rose 1935, Pl VII(b)
B15025	13	Mallowan and Rose 1935, pl. VIII(a), pl. VI(a) and fig. 50.4
B15028	50	Mallowan and Rose 1935, pl. VII(a)
B15035	53, 63	Mallowan and Rose 1935, pl. VII(a) and fig. 50.14
B15041	85	Mallowan and Rose 1935, pl. VII(a) and fig. 50.13
B15093	76	Mallowan and Rose 1935, pl. VII(a) and fig. 50.16
B15104	41	Mallowan and Rose 1935, pl. IX(a) von Wickede 1991, no. 22
B15184	38, 39, 42	Two objects. von Wickede 1991, nos 46, 47
B15185	38, 39, 42	Five objects. von Wickede 1991, nos 35, 36, 38, 39, 40
Arslantepe		
A206-019	111	Frangipane and Pittman 2007, p. 188
A206-020	104	Frangipane and Pittman 2007, p. 189; see also design groups 7 & 8, Frangipane and Pittman 2007, pp. 254–7
A206-025	104	Frangipane and Pittman 2007, p. 191; see also design groups 7 & 8, Frangipane and Pittman 2007, pp. 254–7
A206-041	105	Frangipane and Pittman 2007, pp. 196–7
A206-118	110	Frangipane and Pittman 2007, p. 220
Tall-e Bakun		
23	149	Langsdorff and McCown 1942, pl. 82.6
29+30	146	Langsdorff and McCown 1942, pl. 82.2
33	129	Langsdorff and McCown 1942, pl. 82.12
39	129	Langsdorff and McCown 1942, pl. 82.10
52	130	Langsdorff and McCown 1942, pl. 8.9 and pl. 82.19
347	146	Langsdorff and McCown 1942, pl. 7.14 and 81.27
349	129	Langsdorff and McCown 1942, pl. 81.19
558	129	Langsdorff and McCown 1942, pl. 82.9
565	106, 143	Langsdorff and McCown 1942, pl. 8.5 and pl. 82.25

3457	149	Langsdorff and McCown 1942, pl. 82.7
BK-001	144	Langsdorff and McCown 1942, pl. 81.18
Gird Banahilk		
Bh-7	50, 81	Watson 1983, p. 574 and fig. 210.1
Bh-9	27, 80	Watson 1983, p. 574 and fig. 210.3
Tepe Bendebal		
Sb 5879	132	Amiet 1972, 2: pl. 38.8
Çavi Tarlası		
Ç. T. 83-43	32, 43	von Wickede and Herbordt 1988, p. 18
Ç. T. 84-22	92	von Wickede and Herbordt 1988, p. 18 and fig. 5.2
Chagar Bazar		
S.719	1	Mallowan 1936, pp. 25–6, fig. 7.5 and pl. I.8
S.731	81	Mallowan 1936, pp. 25–6 and fig. 7.24
S.733	65	Mallowan 1936, pp. 25–6 and fig. 7.4
S.763	71	Mallowan 1936, pp. 25–6 and fig. 7.17
CB-027	70	Mallowan 1936, pp. 25–6 and fig. 7.33
Chatal Huyuk		
a3285	28	Braidwood and Braidwood 1960, pp. 483–4 and fig. 379.8
Tell Chenchi		
A 12449	92	Algaze 1989, p. 21 and TS.43
Değirmentepe		
D 81-321	111	von Wickede 1990, no. 353
D 83-151	111	von Wickede 1990, no. 357 Gurdil 2005, p. 356
Dhahab		
D44	30	Braidwood and Braidwood 1960, pp. 483–4 and fig. 379.5
D50	151, 153	Braidwood and Braidwood 1960, pp. 483–4 and fig. 380.8
Djaffarabad		
Djf.305.1	122	Dollfus 1971, fig. 23.3
Domuztepe		
dt-14	31, 76	Carter 2010, p. 169 and fig. 5.13 Also see http://www.shdenham.co.uk/
dt-133	73	Carter 2010, p. 167 and fig. 4.2 Also see http://www.shdenham.co.uk/
dt-171	39, 42, 47	Carter 2010, p. 173 and fig. 6.1 Also see http://www.shdenham.co.uk/
dt-172	76, 77	Carter 2010, p. 169 and fig. 5.11 Also see http://www.shdenham.co.uk/
dt-180	58, 71, 89	Carter 2010, p. 171 and fig. 5.23 Also see http://www.shdenham.co.uk/
dt-243	63	Carter 2010, p. 169 and fig. 5.6 Also see http://www.shdenham.co.uk/
dt-353	76	Carter 2010, p. 171 and fig. 5.30 Also see http://www.shdenham.co.uk/
dt-492	52, 61	Carter 2010, p. 171 and fig. 5.24 Also see http://www.shdenham.co.uk/
dt-719	2, 81	Carter 2010, p. 173 and fig. 6.4 Also see http://www.shdenham.co.uk/
dt-875	12	Carter 2010, p. 171 and fig. 5.22 Also see http://www.shdenham.co.uk/
dt-876	65	Carter 2010, p. 169 and fig. 5.5 Also see http://www.shdenham.co.uk/
dt-1031	63	Carter 2010, p. 169 and fig. 5.7 Also see http://www.shdenham.co.uk/
dt-1113	52	Carter 2010, p. 171 and fig. 5.26 Also see http://www.shdenham.co.uk/
dt-1597	30	Unpublished, see http://www.shdenham.co.uk/

dt-1786	63	Carter 2010, p. 169 and fig. 5.4 Also see http://www.shdenham.co.uk/
dt-1821	26, 29	Carter 2010, p. 171 and fig. 5.28
dt-3452	65	Unpublished, see http://www.shdenham.co.uk/
dt-3858	14, 15, 16, 77	Unpublished, see http://www.shdenham.co.uk/
dt-3859	4, 5, 6, 51, 84	Unpublished, see http://www.shdenham.co.uk/
dt-3941	43	Unpublished, see http://www.shdenham.co.uk/
dt-3957	46	Unpublished, see http://www.shdenham.co.uk/
dt-3987	77, 115	Unpublished, see http://www.shdenham.co.uk/
dt-4697	30, 67, 82, 83	Unpublished, see http://www.shdenham.co.uk/
dt-4698	24, 30, 40, 49, 64	Unpublished, see http://www.shdenham.co.uk/
dt-4699	74	Unpublished, see http://www.shdenham.co.uk/
dt-4746	47	Unpublished, see http://www.shdenham.co.uk/
dt-4749	1, 35	Unpublished, see http://www.shdenham.co.uk/
dt-4751	58	Unpublished, see http://www.shdenham.co.uk/
dt-5268	56	Unpublished, see http://www.shdenham.co.uk/
dt-5269	71	Unpublished, see http://www.shdenham.co.uk/
dt-6291	63	Unpublished, see http://www.shdenham.co.uk/
dt-6352	119	Unpublished, see http://www.shdenham.co.uk/
dt-6588	3	Unpublished, see http://www.shdenham.co.uk/
dt-6693	64	Unpublished, see http://www.shdenham.co.uk/
dt-6891	53	Unpublished, see http://www.shdenham.co.uk/
dt-7332	95	Unpublished, see http://www.shdenham.co.uk/
dt-7333	95	Unpublished, see http://www.shdenham.co.uk/
dt-7325	95	Unpublished, see http://www.shdenham.co.uk/
dt-7329	95	Unpublished, see http://www.shdenham.co.uk/
Tell el-Kerkh		
AK97-Reg.61	12, 61	Tsuneki *et al.* 1997, fig. 24:1
AK98-Reg.38	65	Tsuneki *et al.* 1998, fig. 17:7
AK99-Reg.20	45, 53, 64	Tsuneki *et al.* 1999, fig. 13:5
AK99-Reg.23	65	Tsuneki *et al.* 1999, fig. 13:3
AK99-Reg.24	70	Tsuneki *et al.* 1999, fig. 13:6
AK00-Reg.21	88	Tsuneki *et al.* 2000, fig. 12:11
EK-016	86	Unpublished, see http://www.shdenham.co.uk/
EK-020	54, 93	Unpublished, see http://www.shdenham.co.uk/
EK-029	53	Unpublished, see http://www.shdenham.co.uk/
EK-035	76, 77	Unpublished, see http://www.shdenham.co.uk/
EK-036	54, 93	Unpublished, see http://www.shdenham.co.uk/
EK-038	11, 41	Unpublished, see http://www.shdenham.co.uk/
EK-040	61	Unpublished, see http://www.shdenham.co.uk/
EK-041	163	Tsuneki *et al.* 2000, fig. 12:10
EK-044	19	Unpublished, see http://www.shdenham.co.uk/
EK-047	9, 85	Unpublished, see http://www.shdenham.co.uk/
EK-051	86	Unpublished, see http://www.shdenham.co.uk/
EK-055	14, 15, 16, 24, 30	Unpublished, see http://www.shdenham.co.uk/
EK-056	88	Unpublished, see http://www.shdenham.co.uk/
EK-058	46	Unpublished, see http://www.shdenham.co.uk/
EK-060	163	Unpublished, see http://www.shdenham.co.uk/
EK-062	35, 67, 82, 83	Unpublished, see http://www.shdenham.co.uk/
EK-065	11, 41	Unpublished, see http://www.shdenham.co.uk/
EK-080	19	Unpublished, see http://www.shdenham.co.uk/

Fıstıklı Höyük		
FK-002	27	Bernbeck *et al.* 2003, pp. 54–5, fig. 32 and fig. 33c Tomas 2011, SpAS. 29 and pp. 125–6
FK-006	31, 63	Bernbeck *et al.* 2003, pp. 54–5 and fig. 32 Tomas 2011, SpAS. 33 and pp. 125–6
FK-007	12, 61	Bernbeck *et al.* 2003, pp. 54–5 and fig. 32 Tomas 2011, SpAS. 34 and pp. 125–6
Tepe Gawra		
G-6078	104	Rothman 2002, no. 2967, 402 and pl. 61.2967
G3-188	111	Rothman 2002, no. 2989-92, p. 402 and pl. 57.2991
G3-270	41	Tobler 1950, pl. CLXXIII. 36
G3-408	105	Tobler 1950, p. 247 and pl. CLXVI.125
G4-605	158	Tobler 1950, p. 246 and pl. CLXIV.95
G4-875	11	Tobler 1950, pl. CLXXIII. 37
G4-1088	74, 87	Tobler 1950, pl. CLIX. 20 and pl.LXXXVIII.a 4
G4-1171	65	Tobler 1950, pl. CLVIII. 8
G4-1191	107	Tobler 1950, p. 246 and pl. 163.90
G4-1192	107	von Wickede 1990, p. 267
G5-1237	105	Tobler 1950, p. 247 and pl. CLXVI.126
G5-1595	107	Tobler 1950, p. 246 and pl. 162.78
G5-1638	105	Tobler 1950, p. 247 and pl. CLXVI.127
G5-1711	120	Tobler 1950, p. 249 and pl. CLXXIII.39
G6-198	58, 71	Tobler 1950, pl. CLXXII.31
G6-323	158	Tobler 1950, p. 246 and pl. CLXIV.96
G6-390	92	Tobler 1950, pl. XCII.b 1
G6-444	111	Tobler 1950, p. 248 and pl. CLXVIII.157
G6-452	120	Tobler 1950, p. 249 and pl. CLXXIII.39
G6-457	4, 5, 6	Tobler 1950, pl. CLXXII.19
G6-464	51, 92	Tobler 1950, pl. CLXXII.29
G6-495	11	Tobler 1950, pl. CLXXIII.32
G6-575	48	Tobler 1950, pl. CLXXII.28
G7-23	3, 12, 81	Tobler 1950, pl. CLXXII.25
G7-60	111	Tobler 1950, p. 248 and pl. CLXIX.158
G7-61	120	Tobler 1950, p. 227 and pl. XCIIb.5
G7-63	51, 57	Tobler 1950, pl. CLXXII.22
G7-80	96, 143	Tobler 1950, pl. CLIX.29
G7-96	111	Tobler 1950, p. 248 and pl. CLXIX.159
G7-122	30	Tobler 1950, pl. CLXI.48
G7-172	96, 123, 143	Tobler 1950, pl. CLXI.64
G7-176	28	Tobler 1950, pl. CLVIII.3
G7-183	50	Tobler 1950, pl. CLVIII.4
G7-185	19	Tobler 1950, pl. CLVIII.15
G7-186	59	Tobler 1950, pl. CLXV.104
G7-203	4, 5, 6, 85	Tobler 1950, pl. CLXXII.26
G7-275	105	Tobler 1950, p. 247 and pl. CLXVI.124
G7-312	59	Tobler 1950, pl. CLXIV.103
G7-321	7	Tobler 1950, pl. CLXXII. 20; 249; 120
G7-339	30	Tobler 1950, pl. CLXI. 49
G7-389	50	Tobler 1950, pl. CLXVII.140; 247; 120
G7-453	73	Tobler 1950, pl. XCI. 3; 226; 121
G7-465	80	Tobler 1950, pl. CLVIII. 1

Girairan		
GI-001	122	Stein 1940, pl. XIV.8
Girikihaciyan		
45	50	Watson and LeBlanc 1990, p. 101, table 6.16 and fig. 6.18:2
Tepe Giyan		
TG 2339	137	Herzfeld 1933, fig. 22
TG 2345	133	Herzfeld 1933, fig. 13
TG 2348	137	Herzfeld 1933, fig. 22
TG 2351	137	Herzfeld 1933, fig. 22
TG 2386	131	Herzfeld 1933, fig. 13
TG 2387	132	Herzfeld 1933, fig. 13
TG 2389	131	Herzfeld 1933, fig. 14
TG 2396	117	Herzfeld 1933, fig. 13
TG 2403	148	Herzfeld 1933, fig. 13
TG 2508	137	Herzfeld 1933, fig. 20
TG 2690	137	Herzfeld 1933, fig. 19
GY-001	130	Herzfeld 1933, pl. 38.13
GY-002	132	Herzfeld 1933, fig. 13
GY-003	148	Herzfeld 1933, fig. 13
GY-004	137	Herzfeld 1933, fig. 14
Tell Halaf		
TH08B-0074	48	Becker 2015, p. 306 and fig. 140.4
HF-007	14, 15, 16, 56	von Oppenheim 1962, p. 260 and fig. 191.5
HF-010	49	von Oppenheim 1962, pp. 118–19, pl. CXIV.15 and pl. XXXVIII.11
HF-014	88	von Oppenheim 1962, pp. 118–19, pl. CXIV.19 and pl. XXXVIII.13
Tell Hasanusagi		
T3838a	45, 67, 82, 83	Braidwood and Braidwood 1960, pp. 483–4 and fig. 379.3
T3838b	32	Braidwood and Braidwood 1960, pp. 483–4 and fig. 379.4
Tell Hassuna		
IM.50271	43	Buchanan 1967, pp. 265–6 and p. 277 (fig. 2) Lloyd and Safar, 1945, p. 289 and pl. XI:2
IM.50272	31, 53	Buchanan 1967, pp. 265–6 and p. 277 (fig. 1) Lloyd and Safar 1945, p. 289 and pl. XI:2
Tepe Hissar		
H333	131	Schmidt 1937, pl. XCI
H1012	116	Schmidt 1937, pl. XCI
H1782	116	Schmidt 1937, pl. XXVIII
H2051	115, 133	Schmidt 1937, p. 54 and pl. XV
H3427	115	Schmidt 1937, p. 56 and pl. XV
H4535	131	Schmidt 1937, p. 55 and pl. XV
H4392	132	Schmidt 1937, p. 55 and pl. XV
H4601	144	Schmidt 1937, p. 55 and pl. XV
Judaidah		
x2637	43, 52	Braidwood and Braidwood 1960, p. 387 and fig. 297.2
x3205	9, 51	Braidwood and Braidwood 1960, p. 327 and fig. 252.29
x3776	14, 15, 16	Braidwood and Braidwood 1960, p. 260 and fig. 191.5
x3683	31	Braidwood and Braidwood 1960, p. 257 and fig. 191.2
x3958	61	Braidwood and Braidwood 1960, p. 132 and fig. 101.3
x4016	52, 61	Braidwood and Braidwood 1960, pp. 483-4 and fig. 379.9
x4672	27, 80	Braidwood and Braidwood 1960, p. 97 and fig. 68.2
x4673	53	Braidwood and Braidwood 1960, p. 97 and fig. 68.1
x4951	45	Braidwood and Braidwood 1960, p. 65 and fig. 37.1
x5000	45	Braidwood and Braidwood 1960, p. 65 and fig. 37.5

x5059	30, 67, 82, 83	Braidwood and Braidwood 1960, p. 65, fig. 37.3 and pl. 71.23
JD-015	26, 29	Braidwood and Braidwood 1960, p. 132 and fig. 101.2
Kazane Höyük		
KH-004	73	Tomas 2011, SpAS 42 and pp. 127–8
Kozagaran		
KZ-001	133	Stein 1940, pl. VIII.17
Tell Kurdu		
TK3097	19, 60, 91	Yener, Edens, Casana *et al.* 2000, pp. 66–7 and fig. 17.22
TK4056	70	Yener, Edens, Casana *et al.* 2000, fig. 17.17 and pp. 66–7
TK4260	40, 49, 65, 86	Yener, Edens, Casana *et al.* 2000, fig. 16.2 and pp. 66–7
TK7290	66	Özbal *et al.* 2004, fig. 13.8 and p. 60
K4	26, 29	Braidwood and Braidwood 1960, p. 223 and fig. 167.2
K19	43	Braidwood and Braidwood 1960, p. 224 and fig. 167.6
K47	31	Braidwood and Braidwood 1960, p. 224 and fig. 167.5
KU-010	28	Yener, Edens, Harrison *et al.* 2000, p. 210 and fig. 23.2
Tell Maghzaliyah		
MY-001	44, 74	Bader 1993, pp. 35–7 and fig. 2.25.2
Tell Matarrah		
M-42	31	Braidwood *et al.* 1952, p. 22 and fig. 20.10
Tall-i-Nokhodi		
NI-001	130	Goff 1963, fig. 7.5
Norşuntepe		
NO 72/2	103	Hauptmann 1976, p. 88 and fig. 48.1
Tell Ramad		
R. 73.3	47	de Contenson 2000, 157: p. 112, table 35 and pl. XVII.1b
Ras Shamra		
RS.23.647	34	Schaeffer 1962, p. 508 and fig. 32 de Contenson 1992, p. 136 and fig. 156.1
RS.55	86	Schaeffer 1962, p. 286 de Contenson 1992, p. 136
Tell Sabi Abyad		
Z07-01	21	Duistermaat 2010, p. 173 and fig. 5.a
Z07-02	58, 71, 88	Duistermaat 2010, p. 173 and fig. 5.c
Z88-1	88	Duistermaat 1996, pp. 339–40 and fig. 5.1.3
Z88-5	32	Duistermaat 1996, pp. 339–40 and fig. 5.1.1
Z93-4	40, 64	Duistermaat 1996, pp. 339–40 and fig. 5.1.5
Z96-4	88	Akkermans and Duistermaat 2004, p. 5 and fig. 2.7
Z99-2	70	Akkermans and Duistermaat 2004, p. 5 and fig. 2.9
Z99-3	45	Akkermans and Duistermaat 2004, p. 5 and fig. 2.1
Seh Gabi		
SG73-180	144	Henrickson 1988, p. 6, fig. 3 and pl. 2b
SG73-100	147	Henrickson 1988, p. 4 and fig. 1
Sialk		
S. 78	116	Ghirshman 1938, pl.LXXXVI
S. 85	131, 144	Ghirshman 1938, pl.LXXXVI
S. 259	132	Ghirshman 1938, pl.LXXXVI
Susa		
S. 72	106, 142	Delaporte 1920, p. 32 and pl. 16, 3
784.1	136	Amiet 1971, fig. 35.2 and pl. XXII.6
Sb 882	138, 139	Amiet 1972, 2: pl. 46.171
Sb 888	138, 139	Amiet 1972, 2: pl. 46.172
Sb 907	144	Amiet 1972, 2: pl. 38.34
Sb 909	143	Amiet 1972, 2: pl. 47.198

Sb 913	141	Amiet 1972, 2: pl. 39.42
Sb 914	131	Amiet 1972, 2: pl. 38.28
Sb 915	130	Amiet 1972, 2: pl. 38.17
Sb 919	106, 143	Amiet 1972, 2: pl. 38.26
Sb 921	144	Amiet 1972, 2: pl. 38.24
Sb 931	132	Amiet 1972, 2: pl. 38.25
Sb 935	130	Amiet 1972, 2: pl. 43.110
Sb 985	115	Amiet 1972, 2: pl. 42.85
Sb 987	115	Amiet 1972, 2: pl. 38.32
Sb 2048	136	Amiet 1972, 2: pl. 2.219 and pl. 49.219
Sb 2050	136	Amiet 1972, 2: pl. 2.220 and pl. 49.220
Sb 2247	136	Amiet 1972, 2: pl. 2.219 and pl. 49.219
Sb 2334	138, 139	Amiet 1972, 2: pl. 46.174
Sb 5470	141	Amiet 1972, 2: pl. 39.43
Sb 5479	115	Amiet 1972, 2: pl. 38.9
Sb 5492	141	Amiet 1972, 2: pl. 38.19
Sb 5552	116	Amiet 1972, 2: pl. 34.105
Sb 5564	144	Amiet 1972, 2: pl. 38.31
Sb 5613	133	Amiet 1972, 2: pl. 38.11
Sb 5682	131	Amiet 1972, 2: pl. 38.6
Sb 6098	132	Amiet 1972, 2: pl. 43.98
MT 205 (16)	143	Amiet 1971, pl. 47.197
MT 205 (17)	137	Amiet 1972, 2: pl. 46.175
MT 205 (30)	133	Amiet 1972, 2: pl. 42.80
MT 408 (4)	122	Amiet 1972, 2: pl. 43.91
MT 408 (11)	130	Amiet 1972, 2: pl. 38.20
MT 437 (N 105)	141	Amiet 1972, 2: pl. 43.108
MT 802	123	Amiet 1972, 2:44.125
Tarsus		
TS1	137	Goldman 1956, p. 237 and fig. 392.1
TS2	87	Goldman 1956, p. 237 and fig. 392.12
Tell Tawila		
TAW 06 C 69	4, 5, 6, 9, 73	Becker 2015, pp. 166–7
Umm Qseir		
UQ-003	20, 22, 23	Tsuneki 1998, p. 182 and fig. 15:b
UQ-004	20, 22, 23, 40, 91	Tsuneki 1998, p. 182 and fig. 15:a
UQ-005	18	Tsuneki 1998, p. 108, fig. 46.1 and pl. 14.1
UQ-006	40	Tsuneki 1998, p. 108, fig. 46.2 and pl. 14.2
Yarim Tepe II		
YT-012	23	Munchaev and Bader 1977, p. 95 and pl. XXV Merpert and Boehmer 1993, p. 146 and fig. 8.20:4
YT-015	50	Munchaev and Bader 1977, p. 95 and pl. XXV Merpert and Boehmer 1993, p. 146 and fig. 8.20:7
YT-018	55, 57, 81	Merpert and Boehmer 1993, p. 146 and fig. 8.20:11
YT-022	14, 15, 16, 76, 77	Merpert, Munchaev and Bader 1976, pl. XXX Merpert and Boehmer 1993, p. 146
YT-026	12	Merpert, Munchaev and Bader 1976, pl. XXX Merpert and Boehmer 1993, p. 146
Yumuktepe		
07-34-24	47	Caneva and Köroğlu 2010, fig. 38
R.N. 1834	46	Garstang 1953, p. 17 and fig. 8
YK-006	68	Caneva and Köroğlu 2010, fig. 33 and fig. 54
YK-009	73	Caneva and Köroğlu 2010, fig. 32

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Index