LATE ASSYRIAN ARMS AND ARMOUR:

ART VERSUS ARTIFACT

by

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Abstract

The present study was intended as a new approach to the study of the military equipment of the Late Assyrian period which has traditionally relied upon the pictorial representations of the palace reliefs. By examining extant artifacts from the first millennium in their own right, with the reliefs merely serving to contextualize them, a truer understanding of Assyrian arms and armour can be gathered. This is necessary because the artwork only provides us with a filtered view of the real world, the reliefs are as much works of propaganda as of history. The approach taken here is to first examine the existing weapons typologically, and then to evaluate whether such weapon types appear to be accurately represented in contemporary artwork. Textual sources are also used where they can aid in the discussion.

Five categories of arms and armour were studied: swords and daggers, spearpoints, shields, armour and helmets. The quality and quantity of the items in these categories varied significantly, providing for a much better representative sample of some items than others. Further questions concerning the possible ritual, rather than military, use of some of the existing artifacts were raised. However, the main conclusions reached were that the reliefs suffer not only from a propagandistic viewpoint which sometimes obscures the reality of Assyrian warfare, but that they also suffer from artistic license and spatial restraints, the difficulties in representing three-dimensional objects in a two-dimensional manner, the possible unfamiliarity
of the artists with changing military technology and methods of construction, and finally, our inability to understand artistic short-hand for what were commonplace objects to the contemporary viewer. These have led to misunderstanding both as to the dating and chronological changes in weaponry, and also to the tactics used by the Late Assyrian military. This study of the artifacts themselves reveals a more mundane, utilitarian, and conservative military force which shows both a basic homogeneousness throughout the empire, and the myriad tiny variables of an army on the move drawing weapons and troops from many regions.
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The following Late Assyrian rulers will be referenced throughout this study. The regnal dates used are listed here for referral. All dates are B.C.E. unless otherwise noted.

Ashurnasirpal II 883-859
Shalmaneser III 858-824
Tiglath-pileser III 744-727
Sargon II 721-705
Sennacherib 704-681
Esarhaddon 680-669
Ashurbanipal 668-631?¹

¹ The end date for Ashurbanipal’s reign is frequently listed as 627 B.C.E., but newer texts seem to suggest the possibility of an earlier date of 631 B.C.E. (Dr. G. Frame, personal communication; Frame 2008: 22).
Chapter I: Introduction

We all know that Art is not truth. Art is a lie that makes us realize the truth.
Pablo Picasso (1881-1973)
Dore Ashton *Picasso on Art* (1972)

The Late Assyrian period has left us with a wealth of information in the form of representational reliefs carved upon the walls of palaces. Between the reigns of Ashurnasirpal II (883-859 B.C.E.) and Ashurbanipal (668-631? B.C.E.) major royal structures at Nimrud, Nineveh, and Khorsabad, as well as other more minor sites, were decorated with images of life as it was over two and a half millennia ago. The discovery of these reliefs filled the imaginations of both scholars and the general public as they came to light in the nineteenth century. Two centuries of research have been spent studying these images for information regarding the costume, religious rituals, court life, and warfare of this ancient people. But art does not necessarily represent real life accurately. Artistic sources, just like textual ones, are filtered views of the real world. The purpose of this study is to investigate one of the many elements illustrated in the Late Assyrian reliefs: their arms and armour. The objective is to assess the impact of these artistic filters by looking at the archaeological remains of weapons.

The following study is *not* intended to be a catalogue. Excavated and published finds of Assyrian arms and armour are poor in both quantity and quality. This study is intended: (1) to promote the examination and typologizing of existing Late Assyrian weapons over the analysis of their artistic representations; (2) to re-evaluate the conventional view that the Late Assyrian palace reliefs can be used to date shifts in military technology, or even worse, to date archaeological artifacts; (3) to examine whether the reliefs represent an accurate depiction of weapons of the period; and (4) to question whether these artistic representations are sufficient to

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2 See chronological table on p. x for the regnal dates used for the Assyrian kings discussed in this study henceforth.
make claims on the patterns of military provisioning or tactics. While our database may be small, it will hopefully prove sufficient to establish what patterns may or may not exist vis-à-vis the artistic representations.

A fifth and final point which this study might hope to weigh in upon is the question of the adaptability of military technology, its rate of change. It could be argued that military technology can change quite quickly, well within the generation represented by any one king’s reign, and such would seem to be the accepted fact used by those who would date weaponry by the variation in the reliefs. This could be especially true for the Assyrians who invested considerable time and effort in warfare. The learning curve created by constant yearly campaigns may have been steep indeed. However, an alternate view is sometimes postulated by others. Postgate states that “armies can be slow to adapt to change, especially when usually victorious” (2000: 96). And Yadin describes the human feature of military development as conservatism or inertia:

There are countless examples…in which military innovations, proved in battle, have been spurned by other armies who have preferred to adhere to traditional patterns, and have been finally introduced only after long delay. There is often a considerable time-lag between the appearance of an improved weapon in one country and its adoption by another. (Yadin 1963: 2)

The gradual shift of all contemporary Near Eastern armies to mirror the Assyrians’ equipment by the end of the Late Assyrian period, does suggest that those who are not victorious are certainly more adaptable to change. This shift created an “internationalism of arms” which is reflected in the homogeneous nature of first millennium weapons.

A few comments need to be made about this homogeneous trend as the Assyrians were in many ways responsible for it. Robert O’Connell, in Of arms and men: A history of war, weapons, and aggression (1989), describes the size and complexity of the Assyrian military force as being “entirely inappropriate for a primitive economy based mostly on subsistence
agriculture unless it largely paid for itself (43).” Consequently, by the Late Assyrian period, the army became self-perpetuating. Assyria needed to go to war to provide the enormous wealth, in booty and captured people, to maintain its military forces. The economy of the empire became entirely tied up in its ability to succeed militarily, especially after Tiglath-pileser III’s reorganization of the army into a complex permanent force.

In the ancient world, military conflicts were generally asymmetrical, with a much stronger force attacking a weaker one. This was caused by geographical isolation and tradition-based weapons choices. However, the Assyrians’ attitude towards weaponry was experimental rather than traditional, and their success led to imitation (O’Connell 1989: 40, 43). We will see that a gradual ‘internationalism of arms’ occurred over the first half of the first millennium as military innovations were adopted both by the Assyrians and the peoples with whom they came into contact. The Assyrians’ military advantage gradually slipped away as “superiority of arms proved largely self-defeating (44)”. It is this widespread homogeneous nature of arms and armour that warrants comparisons of Late Assyrian material with that from places as diverse as Hasanlu, Urartu, and even sites in the Levant, as a gradual assimilation took place between the Assyrians and their enemies.

However, it is not clear whether this continuous upgrading is reflected in the craft of the palace artist, nor whether he developed his iconographic repertoire to keep pace with the ever changing technology of the military establishment. Palace craftsmen were not necessarily replaced with a change in reign and might well continue to have drawn what was familiar from previous palace depictions. The question must also be asked whether craftsmen reproduced what they saw at the court, specifically images of officers and generals with their specialized or ceremonial weaponry, rather than the arms and armour of the regular battlefield soldiers. There
is also the issue of palace reliefs reflecting the imperial propaganda Late Assyrian rulers wished to convey to visitors.

All of these questions introduce many layers of meaning and potential artistic license which complicate our ability to ‘read’ and interpret the pictorial reliefs that have been filtered through them. This is further cause to turn to the artifactual record to determine the character of Assyrian military equipment, and to be wary of the temptation to use variations in the reliefs as a tool to date that artifactual record. My approach here will be to try and use the artifacts to test the veracity of the reliefs and thus evaluate their ability to provide us with military history.

Previous studies of Assyrian arms and armour have tended to focus on the pictorial images provided by the monumental reliefs at the expense of any actual artifacts uncovered by archaeology. This was in large part due to the nature of early excavation in Assyria. A far greater emphasis was placed on large art objects, such as the reliefs themselves, rather than on small and often poorly preserved weaponry. The careful excavation and conservation methods needed to preserve such artifacts were also unknown in the nineteenth century. Many ensuing excavations have also paid little attention to the highly corroded remains of metalwork. However, some objects have been preserved, though sometimes remaining buried in the basements of museums. Recent excavations in Syria, Turkey and Iran have produced comparable materials. Sadly, the political situation has made excavation in Iraq untenable for many years. Nevertheless, a study of the military equipment of the Assyrians is possible based on a comparative examination of the existing artifactual record and their artistic representations. Such a study may help to clarify, in one specific case at least, whether too much weight has been placed on the interpretation of Late Assyrian reliefs.
I.1 Previous studies

The most comprehensive typological study of Assyrian weaponry depicted in artistic representations is that of T. A. Madhloom’s *Chronology of Neo-Assyrian art* (1970). Madhloom conducted a “detailed study of the stylistic development of Neo-Assyrian art” to try and “follow [its] chronological development and to consider [its] value for use as dating criteria” (5). Madhloom explored these developments under a number of headings which were well represented in the large-scale reliefs: chariots and siege-engines, costume and fashion, guardian figures, and armour and weapons. His exhaustive examination of many of the motifs of Assyrian artwork is a valuable resource that has subsequently been used to date other artwork such as the Nimrud ivories (Mallowan 1970; Mallowan and Herrmann 1974). While this approach may be valid for works of art in other media, Madhloom’s work caused me to question the validity of dating certain weaponry to the reigns of specific kings based on artistic representations alone. Madhloom himself stated that “any attempt to date Assyrian…objects which bear such motifs has to be considered…in relation to their historical and archaeological backgrounds” (Madhloom 1970: 5). If this caveat is true for art objects, surely an even stronger argument should be made for Late Assyrian arms and armour. If actual artifacts exist from an excavated context, they must take precedence over any typology based on artistic representations. The present work will examine Madhloom’s approach, and his attempt to develop a chronological framework for the arms and armour of the Late Assyrian kings by reign, alongside my own study of existing artifacts.

Yigael Yadin’s *The art of warfare in biblical lands* (1963), applies a similarly art-based approach, though here the goal is exclusively to study “the nature of ancient warfare and the weapons used in antiquity” (4). With references from the seventh millennium to the sixth century B.C.E., in the regions of Syria and Palestine, Yadin examines what he calls the three
basic elements of warfare: mobility, firepower and security (1963: 3ff.). He also goes further than Madhloom to bridge the gap between art and archaeology by using three different types of evidence: illustrated monuments, ruins of fortifications and actual weapons, and written documents. This three-pronged approach makes Yadin’s work a classic resource, although he puts much greater stress on the pictorial representations than either artifacts or texts. He makes a strong case for the pictorial record being the most important for understanding tactics, weapons and fortifications. Obviously, the former cannot be derived from any archaeological material, and the latter exist only in foundations. However, it is, the weaponry which concerns us most here. Yadin argues that not only are illustrated monuments the sole source for arms and armour made out of perishable materials, such as wood, leather, or textiles, they aid greatly in our understanding of the construction of non-perishable items, such as parts of chariots or scale armour (Yadin 1963: 25-26). I certainly cannot argue against this evaluation, for the monumental reliefs will play a large part in this work as well, but I hope to juxtapose them with existing artifacts, to compare, contrast, and evaluate the artifactual record on its own merit, not merely as illustrative of the artistic record. Unfortunately, Yadin cannot help us here, as he shows no weapons for the first millennium section of his book, preferring to rely exclusively on the reliefs.

A good artifactual typology is R. Maxwell-Hyslop’s *Daggers and swords in Western Asia. A study from prehistoric times to 600 B.C.* (1946). Her approach differs from Yadin by relying primarily on extant weapons, but she also cautions that the “evidence of actual finds cited in this study is not conclusive because it is by nature accidental”(2). The scarcity of Late Assyrian weapons might raise doubts as to the conclusiveness of the evidence, but an examination of the existing artifacts alongside the pictorial record is still long overdue.
Maxwell-Hyslop also raises another concern about the use of a weapons typology, whether artifactual or pictorial, for dating purposes:

\[\text{A study of this nature may be highly informative...but typological development must not be confused with chronological appearance, and any attempt to date simply by typology must be much more hazardous with copper or bronze material than it is with, for instance, ornamented pottery. (1946: 2)}\]

While she mostly examined actual extant weapons for her detailed typological study, it is unfortunate that for the Late Assyrian period, once again, the reliefs alone were used.

The great and varied detail with which the ancient artists depicted the Assyrian preoccupation with war has also led some to extrapolate not just military technology but also tactics (Scurlock 1997; Stillman and Tallis 1984; Nadali 2005a, 2005b; Gabriel and Metz 1991).

General discussions on tactical methods suggested by the pictorial reliefs are sometimes combined with textual references to illustrate their employment in specific battles (Scurlock 1997). As will be demonstrated, however, caution should be used when trying to derive historical facts from artistic representations.

The Assyrian army has been studied extensively from a textual basis, using the reliefs to a greater or lesser extent for comparison. The classic work in this category was by W. Manitius (1910) and focused on the organization and composition of the Assyrian army. The emphasis in Manitius’ work was on texts, but artistic representations were sometimes included to illustrate or refute an argument. A more recent study, following a similar approach, was made by F. Malbran-Labat in *L’armée et l’organisation militaire de l’Assyrie* (1982). This work provides an updated and expanded look at the workings of the Assyrian army. However, a pair of articles by Julian Reade (1972) and J. N. Postgate (2000) provide the best fusion of text and artwork to try to identify elements of the Late Assyrian army. In Reade’s article, the pictorial image is pressed into service to illustrate the differences in ‘uniform’ between officers and soldiers of

\[\text{3 Maxwell-Hyslop’s example of this is that tools and weapons just prior to the period of Sargon of Akkad are technically and typologically superior to those of the period 2000-1800 (1946: 2).}\]
three types: Assyrian, auxiliary and provincial troops. While Postgate’s complementary article suggests ethnic designations for some of these auxiliary units. Their arguments will be discussed in subsequent chapters.

These works all combine analysis of the written evidence with comparisons to artistic images on wall reliefs. Textual evidence, especially when it is administrative in nature, rather than propagandistic, is a valuable resource for our understanding of ancient warfare. Propagandistic texts would include material such as royal annals or building inscriptions, which, while full of interesting ‘facts’, were first and foremost written to convey an ideological message. Administrative texts, on the other hand, needed to fulfil a practical function of communicating information and are consequently more likely to be accurate. Unfortunately, while using texts works reasonably well when analyzing Assyrian military organization, where the titles and tasks of various officers can be studied textually, it is somewhat less useful as a means for identifying individual forms of military equipment. We cannot always be completely sure of the precise meanings for some of the vocabulary used to describe particular articles of equipment, and the terms which do exist are often general in nature and therefore cannot possibly be used to differentiate between variations in weapon types. Problems with the textual evidence for specific weapons categories will be discussed in more detail in the following chapters.

The arms and armour of the Late Assyrian period have not been extensively studied metallurgically, in large part because the objects are now often of severely corroded iron. However, a few studies have involved some scientific examinations of the actual artifacts. John Curtis’ unpublished doctoral dissertation is an excellent example of this approach to the study of Late Assyrian metalwork in the British Museum (Curtis 1979). Curtis felt that “in contrast to other forms of material culture revealed by excavations in Assyria, such as the reliefs and the
ivories from Nimrud..., Assyrian metalwork [had] received little attention from scholars” (Curtis 1979: 11). He looked at many different types of artifacts, including furniture, tripods, vessels, weights, harness and chariot fittings, personal adornment and tools and weapons. Metallurgical studies were done on some of these pieces, and the metalworking industry as a whole was examined, including its organization, techniques, and sources of ore. Curtis has continued to pursue this interest in the metalworking industry in Mesopotamia (Curtis, et.al. 1979; Curtis 1988).

Also of note are the works of Tamás Dezsö (2001, with Curtis 1991) and H. Maryon (1961), who both employ scientific methods (radiography and metallurgical studies) to study the artifacts themselves, helmets and swords respectively. Dezsö’s work, in particular, is a marvellous example of what can be achieved by a detailed study of the existing artifacts as a primary focus, followed, only secondarily, by the artistic images. It is invaluable for the study of Assyrian helmets (see chapter 6). These studies help to rectify the over-emphasis on textual and pictorial approaches to the study of the military equipment of the ancient world.

Other studies have examined the material and productive aspects of weaponry. P. R. S. Moorey’s Ancient Mesopotamian materials and industries: The archaeological evidence (1994; see also Moorey 1985) provides a compendium of the research done on ancient Mesopotamian craft industries in stone, bone, ivory, shell, ceramics, glass and metals. Moorey took a detailed look at the sources, recovery processes, manufacturing techniques and repertory of objects for various types of metal industries including gold, silver, copper, and iron. His study is divided both historically and by object types, incorporating mainly archaeological materials with a few textual sources. The greatest value of this book is its scientific approach and the inclusion of much data regarding metallurgical techniques and previous analyses done. Pleiner and Bjorkman’s (1974) earlier article took a similar approach for Assyrian ironworking, but also
incorporating textual material. They provide information on sources and metalworking technologies specific to the spread of the use of iron in Assyria. Also of great value, is their section on iron weapon from excavated contexts.

*Coming of the age of iron*, a jointly edited volume by Wertime and Muhly (1980) provides an in depth study of the metallurgical and pyrotechnological aspects of ironworking. Various articles discuss both the similarities and differences between metallurgy and other ‘fire-shaped’ materials such as ceramics and glass, as well as the “inevitability” of ironworking evolving out of other forms of smithing (1980: xiii-xv). The two processes of iron production: smelting and smithing are examined, with articles on technical aspects such as furnaces, crucibles and slags. The spread of iron manufacture in several different regions is discussed, including, a detailed look at iron in Iran with lists of iron weapons excavated at various sites. Finally, Forbes’ multi-volume work *Studies in ancient technology* devotes two volumes (1971; 1972) to “the tools and methods of ancient metallurgy, and the background of the ancient smith” (1971: vii). These volumes are helpful, though they cover a wide range, geographically and chronologically.

Experimental archaeology is another possible approach, testing hypotheses concerning military equipment by recreating them. The recent doctoral dissertation of Thomas Hulit (2002) looked at the artistic, textual and archaeological sources for Late Bronze Age armour and then went on to test the various effectiveness of leather scales versus bronze scales through experimentation. Coats of leather and bronze scale armour were recreated to be subjected to archery fire. The bow and arrows used were also Late Bronze Age replicas with a variety of points and both modern and ancient drawing techniques were used. Such experimentation attempts to create real world tests for academic hypotheses. Gabriel and Metz (1991) used similar techniques to try and estimate the types and seriousness of wounds which would be
created by various ancient weapons up to the Roman period. Their interests are more medical, but the results provided are a good indication of the strengths and weaknesses of ancient arms and armour.

The intent of this present study is to add to the previous work, which combined art and textual material, another dimension, that of the artifact. While both Yadin and Maxwell-Hyslop recommended this approach, neither accomplished this goal, at least for the Late Assyrian period. I use the art-based study of Madhloom as my point of departure, to which I will add my own investigations of the artifacts available in the British Museum, the Ashmolean, and the Royal Ontario Museum, as well as some published weapons. In attempting to contextualize the artifactual record with the artistic representations I hope to provide a more balanced assessment and fill a void in our present understanding of Late Assyrian arms and armour.
I.2 The Column of Trajan: A Comparable Approach

Before turning to the Late Assyrian artifactual record, a brief case study will be drawn from the Roman world, which has produced a more vast supply of artifacts and a much broader tradition of both military and art historical research. The Roman army controlled most of Europe and the Mediterranean world leaving us with widespread archaeological discoveries of both artifacts and pictorial representations.

The Romans provide us with a suitable comparison because Roman military art, like Late Assyrian, was frequently placed on large public monuments. During both the Republican and imperial periods statues and commemorative reliefs were installed in public places with the obvious intention of self-promotion, starting as early as the first century B.C.E. with Sulla (138-78 B.C.E.) and then Pompey (106-48 B.C.E.). During the imperial age, from Julius Caesar (100-44 B.C.E.) onwards, great use was made of public monuments for propaganda. Emperors were shown commanding the army, addressing crowds, and feeding the poor. Emphasizing real contemporary events was quite popular. The statue known as Augustus of Prima Porta shows the emperor wearing a breastplate on which is depicted the figure of a Roman soldier, representing the Roman people, receiving a Roman military standard from a man in Parthian dress, representing Mesopotamia. This scene was designed to illustrate a well-known historical event. Augustus (63 B.C.E.-C.E. 14) had retrieved the standards that had previously been lost in a military disaster (Ramage and Ramage 1991: 16-18). This was a diplomatic rather than a military success. This Roman concept of art in the service of the state would have been quite familiar to the Assyrians. However, such political motivations for art can also lead to possible misinterpretation of military weaponry. For example, an ancient bias towards Greek weapons of the third and fourth centuries B.C.E., particularly helmets, swords, and armour, appeared among the ruling classes in the period following Augustus. These archaisms were part of a new Greek
fashion and appear in artistic representations of imperial princes and senior officials. In fact, it is quite possible that intentionally archaic arms were produced in this period. A copy of a cuirass of Alexander the Great’s was said to have been made for Caligula (37-41 C.E.), and a Ptolemaic breastplate for Maximinus of Thrace (235-238 C.E.) (Feugère 2002: 22). The meaning was quite clear to a contemporary viewer, paralleling the successes of the past to those of the present ruler.

One emperor who used public monuments extensively, to illustrate his success and the might of Rome, was Trajan (98-117 C.E.). Trajan was an energetic and popular general whose reign represented a period of confidence in the greatness of the empire that had not been seen since the days of Augustus. His nickname, *optimus princeps*, or “the best chief”, indicates his popularity with the public (Ramage and Ramage 1991: 150). Trajan created many large public monuments illustrated with scenes of his successes. Many of these monuments still stand today, as far afield as modern day Romania and Algeria. One of the most famous, however, is in Rome itself, Trajan’s column.

Trajan’s column, once flanked by two libraries, stands in the Forum of Trajan and records the emperor’s victorious campaigns against the Dacians. It is over thirty metres in height with reliefs forming a spiral band that winds around the column from bottom to top. When first constructed, the column would have been viewed from the windows of the various floors of the libraries and so would have been far more accessible to the viewer. The scenes are cut in relief, about five centimetres deep (Ramage and Ramage 1991: 158-159).

It is important to note that Trajan’s Column was not originally erected to display the reliefs. The Column was intended to illustrate the height of the cliff that was excavated to make room for the construction of the Forum. Only as a secondary conception did it become a War Memorial topped by a Roman Eagle and decorated in a suitable subject matter. Its third
conception was in turning it into a tomb for Trajan’s ashes after his death (Richmond [1935] 1982: 2). Nor were the reliefs originally drawn for the Column, since, as either a record of victorious campaigns or a narrative of events, they are far from clearly designed or laid out. Sir Ian Richmond, in his classic study on the matter, came to the conclusion that the reliefs were based on drawings from artists’ notebooks actually done in the field. The precise details used for things such as the buildings and costumes of not just the legions and auxiliaries, but the Dacians as well, suggest the intimate knowledge of direct observation. Hence, the artist’s sense of selection becomes an important factor, since he has not simply sketched one image to represent each day, but made a collection of images that suggest the daily life of the army, which, when combined with a few major events, gives the impression of continuous action. In fact, many artists might have been involved and they could not have known at the time which events would eventually hold the most significance or be selected for display. These original artists’ sketches, themselves already a selection, were then again treated to a fresh revision for this new use, further complicated by being placed on a monument not originally intended for such a purpose (Richmond [1935] 1982: 3-4). This process of selection and reuse “automatically destroys the possibility of considering the scenes as valuable for chronology or as safe guides in topography” (4).

Interestingly, this same suggestion of an actual artist’s field notebook being used as the basis for reliefs has been applied to Sennacherib’s illustrations of the siege of Lachish. In this case, the theory has been taken so far as to suggest an exact spot topographically where the artist would have stood to get the view pictured in the reliefs (Ussishkin 1982: 119-126). Needless to say, I consider this argument speculative at best. There are many difficulties with making the Lachish reliefs fit into the archaeological record at Lachish. However, it is certainly possible that the entourage of any king on campaign may well have included some artists. Their sketches
would then form yet another level of filtering between images seen and recorded on campaign to those eventually depicted upon palace walls back in Assyria. Another possible example of such recorded information, is the illustration of the temple of Haldi at Musasir being sacked during Sargon’s eighth campaign. Details of both the temple and its décor are certainly suggestive of Urartian archaeological finds.

A desire for accuracy can be seen in the details used to illustrate the settings for the scenes. The initial narrow band of the spiral is used to represent the landscape of Lower Dacia with the roughly-made houses and boats of the native peoples and the Danube River that was the region’s natural border with Rome. The army is frequently illustrated amongst the forests and rocky landscapes of the region, whether they are fighting, building a camp, or transporting supplies. These scenes are frequently interspersed with formal scenes that represent the Roman fondness for repetition, particularly in the case of Trajan himself. The emperor is repeatedly shown making sacrifices, setting off on campaigns, and addressing his troops (Ramage and Ramage 1991: 159). These same comments could as readily be made of Assyrian palace reliefs, almost one thousand years earlier. The Assyrian army is shown on campaign both fighting and making camp amongst landscapes frequently depicted using stylized backgrounds. Thus, mountainous regions were indicated with a simple scale-like pattern, marshes with reeds, and other areas with the inclusion of a few suggestive plant species. The king is shown throughout leading his troops, fighting as an archer either on foot or in his chariot, and receiving both submissions and tribute from foreign rulers.

The first active scene on Trajan’s Column shows Roman soldiers crossing a pontoon bridge over the Danube. The sculptors carefully illustrated details of the soldiers’ dress and all of their gear right down to the pots and pans. Interestingly, the same scene shows the Danube represented allegorically as a river god, a mixing of intricately detailed reality and the fantastic.
The 2,500 figures show elements such as their individual unit insignias in such accurate detail as to suggest that the artists used some sort of official record, and yet this detail is mixed with stock figures and generic scenes of army drudgery (Ramage and Ramage 1991: 159-160; Richmond [1935] 1982: 2-3). Similar observations have been made by Barnett of the images in Assyrian reliefs, particularly those of Sennacherib’s palace at Nineveh: “the impression of mass-production is strong, and one can without much trouble pick out identical stock figures or groups of such. We find such stock motifs as a ‘man-leading-a-horse’, ‘the chariot group’, ‘bowmen shooting’, ‘two soldiers marching’ which are repeated as if either copied from each other or from the master craftsman’s pattern-book” (Barnett 1970: 26). Both the Romans and Assyrians also included portraits of military camp life as part of the standard repertoire of images used in relief sculpture.

The ever present problem of how to represent complex narrative scenes in a finite space is dealt with cleverly on Trajan’s column. Roman art had developed solutions to the problem of the spatial backgrounds for narratives more fully in painting, but here we see the problem dealt with in sculpture. Sometimes the foreground is at eye level while a background of architectural details is seen from above and much reduced in scale. Siege scenes depict the Romans’ tactics against fortifications that are often depicted as little larger in scale than the men themselves, and yet the sense of the scene is still quite clear. The Romans’ enemies are also fully illustrated and treated clearly and with as much interest in detail and respect as the Romans themselves (Ramage and Ramage 1991: 160-161). In this they also parallel the Assyrians, for illustrating a foe as too easily beaten reduces the glory of the victory. Therefore we see the careful illustrations of fortified cities being attacked, though in the same reduced scale as on the Roman monument, and the hardships crossing northern mountain passes or southern marshes. The
enemy is also drawn in clear detail, as they are trodden under horses or chariots, beheaded, tortured, or taken prisoner.

Richmond ([1935] 1982: 6) expressed concern that “the usual attitude adopted by students towards this accuracy [of Trajan’s Column] has been, to take it for granted, and to use the reliefs as illustrations for archaeological material. But it is natural that until the truth of the representations as a whole can be established, this use should be limited….Archaeological exploration…has been accumulating a body of material which enables their accuracy to be tested….A comparison between the actual relics and their portrayal upon the reliefs ought no longer to be delayed.” It is this same concern that prompts the similar approach I argue should be used to analyze the Late Assyrian reliefs.

The importance of the reliefs on Trajan’s Column lie in their social history recorded by the artist’s faithful attempt to represent all the details of everyday military life. However, we have already discussed how the transference of the artist’s original sketches to the finished product on the Column, likely by quite different artists, undermined their accuracy. Transferring images from scroll to stone could lead to still further difficulties and inaccuracies of understanding. For example, walls built of turf and surmounted by a wooden board walk were depicted by the stone masons as stone walls surmounted by decorative moulding. There were also confusions in representing the ballistae, which may have been unfamiliar to the stone carver (Richmond [1935] 1982: 5-6).

The detail on Trajan’s column is quite remarkable, and a great deal of Roman military history has been derived from it. However, errors have occurred from too great a dependence on the reliefs. Trajan’s Column shows a clear differentiation in terms of equipment between the legionary and the auxiliary soldier. The legionaries have the lorica segmentata type of cuirass with oblong convex shields, whereas the auxiliaries are shown with oval shields and what is
frequently considered to be leather jerkins over tunics. These images have had a profound effect on understandings of the divisions of the Roman army, and yet they have been proven to be an oversimplified view when compared with archaeological evidence. Finds from auxiliary forts have shown that they were sometimes issued the *lorica segmentata* of the legionnaire, and auxiliary cavalrymen are represented on their tombstones and elsewhere with various types of scale armour and hexagonal shields not oval ones. Even on the Column, it has been suggested that in fact the auxiliaries are wearing chain mail which, though well-weathered, appears relatively clearly in some spots. Studies of armour hoards found at Corbridge in northern England have also proven that many details on the Column regarding the armour are inaccurate. The clear division of equipment as seen on the column is “purely an artistic convention adopted to clarify the ‘narrative’” (Lepper and Frere 1988: 266-267).

One more example is enough to illustrate the inherent danger. A. Comarmond, who was appointed Conservator of the Archaeological Museum in Lyon in 1841, interpreted a number of bronze artifacts in the collection as the rings that appear to top the helmets illustrated on Trajan’s Column. They were then described as helmet crests in the catalogues and even fitted to a newly acquired Republican period helmet which was “missing” such a feature. It is now known that such rings were in fact parts of animal harnesses. The discovery in 1878 of a ‘tomb of a Roman legionary’ contained, among many other masterfully reconstructed fakes, the only known example of a bronze helmet complete with a ‘Comarmond mounting’ (Feugère 2002: 22-23).

The meaning behind Trajan’s Column is summed up nicely by Ramage and Ramage (1991):

The artists who carved this milestone in Roman sculpture concentrated on a style that would make the narrative clear enough; but even more important than historical accuracy was their aim of extolling the virtues of the army and the emperor. In fact, details of events were often reduced to stock scenes that could be repeated, without historical
basis, as long as the viewer was kept constantly aware of the greatness of the Roman state through its chief citizen and leader. Thus, the propaganda message took precedence over accurate details, and the Column of Trajan exemplifies in its greatest form what Roman historical relief is all about (161).

The same, as we shall see, can be said of Assyrian palace reliefs. The Assyrians used the same repeated stock scenes, simplified landscapes, and small scale architecture. The accuracy of these may suggest that they were taken from artist’s field notebooks, however, a sense of chronology and historicity may have been lost. Assyrian reliefs show a love of detail and a desire to illustrate specific peoples and places but, none of this was allowed to detract from the main message, which was one of propaganda and power.
I.3 A Survey of Archaeological Source Materials

This study will focus on two separate types of archaeological evidence, each with their own distinct problems of context: (1) monumental Late Assyrian reliefs and (2) extant physical examples of arms and armour. Each of these types of materials poses different problems of interpretation and dating. Dating is of extreme importance when we are trying to subdivide our 250 year period into the reigns of individual kings, a task which is quite often beyond the scope of the archaeological contexts. For comparative purposes, other forms of art will also be used, including frescoes, ivories, bronze reliefs, and stele.

Monumental reliefs were carved on orthostats that lined the walls of Late Assyrian palaces from Ashurnasirpal II onwards. The impressive detail of these reliefs has made them a great source of information concerning the Assyrians. Furthermore, the palaces are easily datable by the inscribed bricks used by ancient kings, and the reliefs themselves are covered in inscriptions extolling the virtues of the kings who had them erected. While palaces are rebuilt and reused, and monuments are occasionally recarved, it can generally be claimed with a fair degree of assurance to whom these reliefs can be attributed.

Unfortunately, the same cannot be said for other types of material remains found within the great Assyrian capitals. Many were inhabited over successive generations, and their rooms used as storehouses by later kings. For example, the palace of Ashurnasirpal II and Fort Shalmaneser at Nimrud, both dating to the ninth century B.C.E., were used until the seventh century B.C.E. and kept in good repair. Hence, very little material was discovered in a good stratified context. Objects found in floor context need not date to the foundation of the building, and the only \textit{terminus ante quem} is its late seventh century destruction. This makes estimating dates for the material found within the buildings difficult. Most weapons probably date to the seventh century as it is unlikely that iron would have been stored for as long a period as were
more decorative objects (Curtis et.al. 1979: 370). However, we cannot rule out the potential of a ninth century date. Thus, the true challenge in trying to compare the images on the Late Assyrian reliefs with the remaining artifactual record is our inability to safely pin down a date for most existing artifacts.

Material from a variety of archaeological sites has been used in the course of this study, the bulk from the ancient Assyrian capital of Kalhu, or modern Nimrud. Material has also been included from the other Late Assyrian capitals at Khorsabad and Nineveh as well as other Assyrian sites within their heartland. Beyond Assyria’s heartland, comparative material has been drawn from the remarkable site of Hasanlu, in northwestern Iran, several Urartian sites, and to the western extremes of the empire in Syro-Palestine. The scarcity of Assyrian remains has made this wide search for comparative material necessary, but it is also valid due to the trend towards homogeneousness seen in the military equipment of the first millennium as previously discussed.

I.3.1 Nimrud

The extensive excavations at the site of Nimrud conducted by Layard, Mallowan, Oates, and others have resulted in a large corpus of materials, including much of the art and artifacts examined in this study. Furthermore, a large proportion of this material is now in the British Museum and was kindly made available to me. For this reason, a short overview of the site and its excavation history is necessary.

Nimrud, the ancient site of Kalhu, lies 35 km downstream from Nineveh on the eastern side of the Tigris river. The outer city wall encloses a rough square of some 360 ha and has an overall length of 7.5 km. The citadel lies in the southwest corner and includes several palaces, most notably, the Northwest Palace of Ashurnasirpal II (Oates and Oates 2001: 27). In the
southeast corner of the city lies Fort Shalmaneser, the source of a large portion of the arms and armour discovered at the site.

Assur\(^4\) had been the traditional capital of the Assyrians, however, Ashurnasirpal II chose to make Nimrud the site of his new royal capital. Nimrud had a greater agricultural hinterland to sustain a large population and was well placed to serve Assyria’s growing military interests in the north and west. Ashurnasirpal II initiated the first major constructions, which were later continued under his son Shalmaneser III and subsequent kings. The city remained the main Assyrian residence and administrative capital until the reign of Sargon II, who built himself the new capital of Dur-Sharrukin (Khorsabad). Subsequent kings ruled from Nineveh, but building projects still went on at Nimrud, most notably under Esarhaddon who undertook a partial restoration of Fort Shalmaneser. Evidence from Fort Shalmaneser suggests that Nimrud likely suffered attacks in both 614 and 612 B.C.E. at the hands of the Medes (Oates and Oates 2001: 148). The Babylonian Chronicles tell of the attack and sacking of Nineveh in Nabopolassar’s (625-605 B.C.E.) fourteenth regnal year (612 B.C.E.), but also mention campaigns in the area two years previously, which may account for the evidence of previous destruction (Grayson 1975: 18-19, 94). For simplicity, the date of 612 will generally be used when referring to the destruction layer.

Excavation at Nimrud has taken place over the last one hundred and fifty years by successive groups of archaeologists. Austen Henry Layard excavated 1845-1847 and 1849-1851, mostly in the Northwest Palace but also in other palaces and temples. During the last half of the nineteenth century further excavations were carried out by W.K. Loftus, George Smith and Hormuzd Rassam. The twentieth century saw extensive work by the British School of

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\(^4\) The site of Assur has produced some Late Assyrian weapons but unfortunately they were never published. For example, the graves at Assur included seven daggers, a sword, and three possible spearheads, all made of iron (Haller 1954: 12-14, 33, 36-37, 70). However, without images, measurements, or even descriptions, they have not been included in this study.
Archaeology in Iraq (1949-1963), principally under Max Mallowan and David Oates. It was in 1958 that work was begun on Fort Shalmaneser. Short excavations were conducted in the mid-1970s by the Polish and in the mid-1980s by the Italians. In 1989 a British team, lead by John Curtis, once again returned to Nimrud, but sadly only got to excavate one season in Fort Shalmaneser before work was halted in Iraq. Periodic work in the 1950s, 60s, and 70s by Iraqis, both excavating and restoring buildings on the citadel, culminated in the discoveries of 1988-1990 of the queens’ graves. Most of the material available for the present study comes from the British excavations.

During the excavation of Ashurnasirpal II’s Northwest Palace, Layard uncovered a large quantity of orthostats. These included hunting scenes and victorious scenes of war with detailed representations of Late Assyrian weaponry. Published in several beautiful folio volumes (Layard 1849a; 1853a), these provide the bulk of our pictorial sources for the reign of Ashurnasirpal II. Some of his sculptured reliefs were also found being reused in Esarhaddon’s Southwest Palace at Nimrud (Barnett and Falkner 1962: 20).

Nimrud is also the source of a good deal of the artifactual material available for study. All excavations found large quantities of arms and armour, which sadly they were not equally well equipped to preserve. Layard described the finds of Chamber I in the Northwest Palace:

As we approached the floor, a large quantity of iron was found amongst the rubbish; and I soon recognized in it, the scales of the armour represented on the sculptures…. The iron was covered with rust, and in so decomposed a state, that I had much difficulty in detaching it from the soil. Two or three baskets were filled with these relics….Several helmets…were also uncovered; but they fell to pieces as soon as exposed; and I was only able, with the greatest care, to gather up a few of the fragments which still held together, for the iron was in so complete a state of decomposition that it crumbled away on being touched. (Layard 1849b: 341-342)

5 For a clear synopsis in chart form of the excavation history of Nimrud up until 1976 with bibliography see Postgate and Reade (1976-1980: 304-307). The principal publications for Nimrud are Layard 1849b and 1853b, Mallowan 1966, and Oates and Oates 2001, as well as countless reports and journal articles, in particular those found in the journal Iraq during the BSAI excavations. There are also many specialist publications on the reliefs, ivories, and texts.
And in Room AB of the palace:

Around the vessels I have described were heaped arms, remains of armour,…and various objects in ivory and bronze. The arms consisted of swords, daggers, shields, and the heads of spears and arrows, which being chiefly of iron fell to pieces almost as soon as exposed to the air. A few specimens have alone been preserved…. (Layard 1853b: 194)

Despite his inability to preserve much of this material, some pieces were saved and sent to the British Museum.

Elsewhere in the Northwest Palace, the BSAI excavations managed to recover a few iron spearheads. In Room HH, 8 iron spears were found stacked in a corner in conjunction with a large storage jar, carved ivories and several clay docketts. Room HH was part of a series of private domestic quarters which appear to have gone out of use except as storerooms and residences by the time of their destruction. This room is also significant for its clarification of the sequence of the three floor levels found throughout this part of the building. However, once again, the nature of the contents of this room appear to suggest that this was a storeroom, though they could possibly represent the belongings of an official who lived here in the last days of the palace (Oates and Oates 2001: 61-64, 70).

Tiglath-pileser III’s reliefs are also found at Nimrud though their archaeological context is more confusing. The reliefs from his Central Palace were later reused to decorate Esarhaddon’s Southwest Palace. Consequently, they were not found in their original locations, but had been removed from the walls and stacked for reuse in the areas of the Central Palace or the Southwest Palace. Still others had been placed in position along the walls of the Southwest Palace either with their faces turned inwards, or, if faced outwards, then greatly defaced (Barnett and Falkner 1962: xiv-xv, 23). Despite such time-saving measures Esarhaddon’s own palace at Nimrud was never completed, so we do not have reliefs that can be dated to his reign. However, he did find the time to have repairs made to Fort Shalmaneser.
Fort Shalmaneser contained the bulk of the arms and armour from Nimrud now housed in the British Museum’s collection. In Assyrian it was known as the *ekal mašarti*, a word variously translated as ‘review palace’, ‘inventory palace’ or ‘arsenal’. It served as a royal residence, a place to review the troops, and a storehouse for military equipment and the spoils of war (Oates and Oates 2001: 145; Mallowan 1966: 376-377). A cylinder of Esarhaddon’s found on the mound of Nebi Yunus, a similar structure at Nineveh, describes the function of the *ekal mašarti* as a place built “to maintain the camp (and) to keep thoroughbreds, mules, chariots, military equipment, implements of war, and the plunder of my enemies...to have horses show their mettle (and) to train with chariots” (Leichty 2010: Esarhaddon 2 col. iv l. 35-45).

Excavations at Fort Shalmaneser found large numbers of arms in the ruined remains of the final destruction layer. The northwest quarter of Fort Shalmaneser had originally been built to hold large magazines and workshops, though by the late seventh century B.C.E. only one of them was still used this way, while the others had been converted to storage rooms. It has been surmised that the original use of most of these workshops was the maintenance and repair of military equipment, especially chariots and horse gear, which is reflected in the assemblages of the storage rooms’ final days. Thus NW15 held armour and weapons, including iron daggers, spearheads, and a snaffle-bit, as well as the ivory inlays of now decomposed wooden furniture (Oates and Oates 2001: 155-156). A similar situation existed in the southwest quadrant of Fort Shalmaneser which was also a particularly good source of large amounts of weaponry, as well as of ivory artifacts. The most recent British excavations in 1989 excavated a single room, T20, in which “the whole north end of the room was filled with a mass of corroded scale armour to a depth of almost one and a half metres” (Oates and Oates 2001: 248). At the time of destruction, most of these rooms were used for storage, though this may not have been their originally intended purpose.
While most of the excavated contexts at Nimrud seem to date to its destruction (even if stored objects themselves were possibly older), the stratigraphy of room T20 provides an opportunity to separate some earlier material, since two clear floor levels were distinguished by the excavators. The earlier, of yellow clay, dates to the room’s original construction in the reign of Shalmaneser III, while 10 cm higher, rests a white plaster floor presumably dating to Esarhaddon’s rebuilding of Fort Shalmaneser. It was the context of this upper floor that showed signs of the final conflagration (Curtis, Collon and Green 1993: 8, 16; Oates and Oates 2001: 181-182). Between these two levels was a sealed layer which contained the scattered debris of horse harness, bronze and iron scales, glass inlay plaques, an iron blade, an arrowhead, 170 small bronze bosses, and a single iron spearhead (Curtis, Collon, and Green 1993: 8, 15). These items then can be dated to a period between Shalmaneser III and Esarhaddon, while those above the white plaster, including a dagger discussed in Chapter 2 (Curtis, Collon, and Green 1993: 16), are safely seventh century.

The ivories from Nimrud will be used as a comparative check on the artwork of the reliefs, to see if weapons are depicted differently in this medium. The scale of the ivories poses different challenges for artists than the work on the much larger orthostats, but it also serves to demonstrate the features that an artist felt most important to emphasize.

The ivories bring into focus however another difficulty with material found at Fort Shalmaneser. Unlike that which comes from the palaces on the citadel, material stored in the *ekal mašarti* could quite possibly have come from anywhere in the empire as booty or tribute. While a foreign source is possible for any of the material at Nimrud, here we have Esarhaddon’s own claim that this material is booty and not local. This raises the question of whether or not any of the arms and armour depicted on the ivories can be considered to be representative of the Assyrian army. The homogeneous nature of Near Eastern weaponry by the end of the Late
Assyrian period (as discussed above) makes this less of a concern and, as will be seen, the ivories mirror the imagery seen in the palace reliefs.

1.3.2 Balawat

Ashurnasirpal II’s son Shalmaneser III continued to reside in his father’s palace so we do not have a separate series of carved orthostats to be specifically identified with him. However, the small site of Balawat has provided us with examples of military reliefs from the reign of Shalmaneser III in a different medium.

Balawat is located 15 km northeast of Nimrud and was a small town primarily occupied in the ninth to seventh centuries B.C.E. Excavations were first undertaken there in 1878, when Hormuzd Rassam uncovered a small palace and a temple to the god Mamu. His most striking finds were a number of bronze bands that once decorated two sets of gates, one with inscriptions dating to Ashurnasirpal II, the other dating to Shalmaneser III. While the former ones were in very poor condition, the latter survived mostly intact. A third set, also in poor condition and dating to Ashurnasirpal II, were found in 1956 by the British School of Archaeology in Iraq expedition under Max Mallowan (Curtis 1982: 113-115). Twelve of the sixteen impressive bronze bands of Shalmaneser III are now housed in the British Museum and display scenes of hunting and military activity. These representations of military equipment during the reign of Shalmaneser III have, for many years, been available for study, due to their publication by L.W. King in 1915. Meanwhile, Ashurnasirpal II’s gates went unpublished, leaving military historians to rely upon the orthostats.

One must, however, be careful when examining the artistic representation of the ninth century, the large scale stone reliefs of Ashurnasirpal II to Shalmaneser III’s fine bronzework, as has traditionally been done. Depicted differences in military technology may in fact simply be a
reflection of differences in scale, in medium, and in the artistic techniques of the craftsmen involved. Fortunately, a recent publication has made the two sets of Ashurnasirpal II’s gates found at Balawat much more accessible (Curtis and Tallis 2008). This allows us not only to compare and contrast the representations of Ashurnasirpal II and Shalmaneser III, but also any differences which may exist between Ashurnasirpal II’s large scale stone reliefs and the smaller scale work in bronze.

The Balawat Gates provide a further opportunity to check the reliability of Late Assyrian art as an historic tool. The bronze bands were originally attached to wooden gates which had long since disintegrated, so their arrangement has been based upon their lengths. The bronze bands needed to fit across the door leaf itself and then wrap around the door post. The tree trunks used for the door posts would have tapered towards the top, so that the bands would all be slightly different in length. This hypothesis was first suggested by Unger, who sorted the bands of Shalmaneser III’s gates into order, an approach now followed for the gates of Ashurnasirpal II (Curtis and Tallis 2008: 13-15, 26-29, 52-53). All three sets of gates are inscribed with information on the places and peoples illustrated, which led Barnett to point out that their arrangement is random, with no regard for chronology or geography (Barnett 1970: 17). The recent study of Ashurnasirpal’s gates, however, has shown the placements are not random. While chronology is not an issue, geographical and political groups do appear to be grouped visually, and the arrangement appears to stress certain aspects of royal propaganda by placing important imagery on the bands where it would be the most visible (Curtis and Tallis 2008: 26, 52, 72-73). The lack of chronological progression clearly indicates that the ninth century artists of the gates were no more interested in the historical veracity of their narrative than the designers of Trajan’s column.

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6 A recent work by Schachner (2007) suggests a slightly different approach by measuring the diameter of the bands, which he uses to hypothesize another possible order. His order also does not appear to follow a chronological pattern however.
I.3.3 Khorsabad

Sargon II chose to move the Assyrian capital from Nimrud to a new site, which he enlarged and renamed Dur-Sharrukin, the ‘Fortress of Sargon’ (modern Khorsabad). Excavation work was begun there by Paul Émile Botta in the 1840s, making it the first site in Mesopotamia to be extensively excavated. Botta immediately uncovered the large carved orthostats that lined the walls of Sargon’s palace and the drawings of these reliefs made by Eugène Flandin were published in Botta’s five volume *Monument de Ninive* ([1972] 1846-1850). Botta’s successor as French consul at Mosul was Victor Place, who also continued his predecessor’s excavations at Khorsabad from 1852-1854 and published another multi-volume work (1867-1870). Unfortunately, many of the monuments discovered by Botta and Place are not now available for study. This makes it necessary to rely heavily on the drawings made by Flandin, and Félix Thomas, Place’s draughtsman. Relying on the drawings alone is problematic when trying to interpret artistic representations of military equipment, since such representations have gone through a further artistic filter in being drawn by the modern draughtsman who knew even less about Assyrian military equipment than the original craftsman. It was 1929 before further excavations were begun by the Oriental Institute of Chicago under Edward Chiera and Gordon Loud (Loud 1936; Loud and Altman 1938).

Khorsabad was never truly completed, though celebrations in honour of the king and the gods taking up residence were held in 707 B.C.E. Sargon, however, was killed in battle in 705 B.C.E. and his successor moved the capital to Nineveh. It is most likely that the city was never fully inhabited and few finds were excavated at Khorsabad to aid us in our discussion of Late Assyrian arms and armour.
I.3.4 Nineveh

Nineveh was the last of the great Assyrian capitals. It consists of two main mounds, Küyünjik and Nebi Yunus, and a perimeter wall which encloses an area roughly 2 km by 5 km. The city is on the east bank of the Tigris river near its confluence with the Khosr, which runs through the city. Sennacherib chose this ancient city to be the seat of royal power, abandoning Khorsabad as a capital. It was here that he built the colossal Southwest Palace with over seventy halls, chambers and passages all decorated with sculptures. Although Botta had opened a few trenches at Nineveh with little success, it was Layard who revealed Sennacherib’s palace from 1846-1851. After his departure, work was continued by Rassam who discovered the North Palace of Ashurbanipal. Subsequent work was continued by George Smith, L.W. King, R. Campbell Thompson, Max Mallowan, Tariq Madhloom and David Stronach; the latter two studying the walls and gates as the growing city of Mosul encroaches on the ancient site.

The vast quantity of orthostats uncovered by Layard made publishing all of them too difficult and many drawings were not included in the final publication. In 1915, Archibald Patterson published Assyrian sculptures: Palace of Sinacherib in an attempt to bring together all of the sculptures in the proper order. But even this work remained incomplete. Many of the sculptures that were lost or reburied by the excavators only exist in unpublished drawings to which Patterson did not have access (Barnett 1970: 23, 26). Sculptures from the Southwest Palace of Sennacherib at Nineveh (Barnett, Bleibtreu and Turner 1998) attempts to bring together all of the available sculptures along with the earlier drawings to provide a full account of the artwork of the palace. Going one step further, John Russell’s (1991) detailed study of

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Sennacherib’s palace undertakes to unravel the ideological message in the sculptures by examining the inscriptions and images on the reliefs within the context of the palace layout.

The vast quantity of reliefs needed for Sennacherib’s palace must have put a strain on the corps of craftsmen available. His reliefs seem somewhat more rushed, with less detail, more repetition of scenes, and shortcuts used for artistic convenience. Some of these shortcuts will be discussed in relation to the military objects portrayed. However, Sennacherib’s reliefs also show a greater narrative and a wider range of subject matter than earlier material, which aids in the discussion of military tactics.

Sennacherib’s grandson, Ashurbanipal was responsible for building the North Palace at Nineveh, which contained the famous lion hunt reliefs, and, more importantly for our purposes, depictions of campaigns against the Babylonians and Arabs. He also redecorated his grandfather’s palace, a rare occurrence among Assyrian rulers. In the Southwest Palace he added depictions of his Battle on the Ulai river against the Elamites (698 B.C.E.). The reliefs from both palaces provide some of the last great imagery of the Assyrian military before its final fall.

In comparison with Nimrud, Nineveh provided few artifacts. Few of the weapons excavated by later archaeologists have been published. So while some will be mentioned in passing they cannot be part of our typologies as we have verbal descriptions only with no published illustrations.
I.3.5  Hasanlu and Dinkha Tepe

Hasanlu is located in the northern half of the Solduz valley just south of Lake Urmia. The site consists of a citadel mound rising 25 m above the surrounding plain and a lower mound about 8 m high. The preserved size of this lower mound is about 600 m in diameter, but the original outer town was probably larger. Throughout the first millennium B.C.E., Hasanlu’s powerful neighbours, Assyria to the west and Urartu to the north, struggled for control of this region. The best recorded periods at the site are the Iron Age levels, periods V-III.\(^8\) Hasanlu IVB provides us with a securely dateable level, as it was destroyed around 800/780 B.C.E., presumably by the Urartian kings Ishpuini or Menua.\(^9\)

The excavation of this destruction layer was accomplished from 1956-1977 by the Hasanlu Project of the University Museum, University of Pennsylvania, under Robert H. Dyson. Within the settlement’s walls, four major buildings were grouped around two open courtyards. Each building had a portico and central columned hall. There were first and second floor storage rooms that had collapsed, along with the smaller structures around them, sealing thousands of objects under the debris. Weapons were recovered from all areas of the citadel, both inside and outside the buildings. Some were found in storage contexts, while other isolated examples appear to have been lost or abandoned during the battle. The items included: hundreds of bronze and iron socketed spears, forty swords, more than twenty-five daggers, bronze axes, and iron pikes (Muscarella 1989: 26). It is this huge quantity of weapons which makes Hasanlu a valuable comparative site for this study. As Thornton and Pigott point out:

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\(^8\) A vast amount has been written about the excavations at Hasanlu mostly in a variety of journals. One of the most useful for an overview is Expedition 31(2-3) (Dyson and Voigt 1989), which was a volume specifically dedicated to articles about the site. See also Dyson 1960 and 1968, de Schauensee 1988, and Muscarella 1966, 1980, and 1988.

\(^9\) This date is modified from previous publications by the excavators to match new dates for the reigns of Ishpuini and Menua who are still assumed to be responsible for the destruction. (Personal communication from M. de Schauensee and R. H. Dyson.)
“Hasanlu provides one of the largest stratigraphically-controlled corpuses of proto-historic weaponry from the Iron Age of Southwestern Asia” (forthcoming).

A great number of ivories have also been found in the destruction level at Hasanlu, often in the same contexts as the arms and armour. Most of the ivories with military scenes were found in Burned Building II, recovered from the collapse of the second story fill in three rooms adjoining the great hall (Muscarella 1980: 161). These ivories provide us with contemporary artistic representations, and will be compared to the weaponry discovered.

The site of Dinkha Tepe is only 25 km west of Hasanlu and was excavated in 1966 and 1968 in conjunction with the Hasanlu Project. Dinkha Tepe is divided into phases I-IV: Islamic, Iron Age II, Iron I, and the Bronze Age respectively. Both the architecture and cemetery continue from the Bronze Age into the Iron Age II, with material comparable to that at Hasanlu, but there is no Iron Age III, suggesting that the site was abandoned after the destruction of Hasanlu (Muscarella 1974: 35).

The dating of the Iron Age II burials was based sometimes on depth, but more often by the contents. These included bridge-spouted vessels, hydria (medium sized vessels with three handles), various jars, cups, carinated bowls, deep bowls with animal-head handles, and many metal objects principally of iron which had well known parallels from Hasanlu IV. Of the sixty-eight graves excavated, only seven contained weapons. These weapons included sixteen examples made of iron and three examples made of bronze (Muscarella 1974: 58-59). The spears found among these weapons will be discussed in Chapter 3 in comparison with those from Hasanlu.
I.3.6 Urartu

North of Assyria was the highland state of Urartu, which extended over most of eastern Anatolia, northwestern Iran and Armenia during the eighth and seventh centuries B.C.E. Urartu was in constant conflict with Assyria, but also shows some of the greatest similarities and examples of military borrowing. Two of the most significant sites for the archaeology of Urartu are Toprakkale and Karmir Blur. Toprakkale was excavated in the chaos of nineteenth century work carried out by Hormuzd Rassam. As he was busy at Assur, Nimrud and Balawat, actual supervision of the work fell upon Capt. Clayton, the British Vice-Consul at Van and Dr. Raynolds, an American missionary teacher. The only surviving account of their work is a letter written by Clayton to Layard in May 1880. Some further sporadic work was continued by Rassam and Clayton before the site was abandoned as being “disappointing”. Rassam did manage to conclude that the site had probably been consumed by fire (Barnett 1950: 8-12, 17-18). In the following years, Raynolds described quite a variety of artifacts from Toprakkale which were offered to him or sold on the open antiquities market, proving the scale of illicit digging which was going on (Barnett 1950: 20-23). This situation has led to a good deal of confusion concerning the provenience of some of the Urartian artifacts in the British Museum.

The site of Karmir-Blur also contained a large quantity of Urartian arms and armour useful for our discussion. In 1936, B. B. Piotrovsky began work on the site, uncovering a citadel, a small area of the town, and a Hellenistic cemetery. The citadel belonged to two periods. The first bears objects inscribed with the name of Menua, a king who can be dated to the late ninth or early eighth centuries. The main building, dating to the second period, is ascribed to Rusa, son of Arghishti, in the first half of the seventh century. Karmir-Blur seems to have been destroyed in a conflagration at the beginning of the sixth century likely caused by the
Scythians, judging from the vast quantities of trilobate arrowheads (Barnett and Watson 1952: 132-134). As at Nimrud, the majority of weaponry was found in storerooms.

**I.3.7 Syro-Palestine**

Tell ed-Duweir, ancient Lachish, is located on a major road joining Israel’s coastal plain to the Hebron hills. Its location, fertile land, and ample water supply made it an important settlement mentioned in the Old Testament and Assyrian sources. However, its value for the study of Late Assyrian military history lies in its destruction in 701 B.C.E. by Sennacherib. The fact that Lachish’s destruction was recorded pictorially in the ‘Lachish Room’ (Room XXXVI) in Sennacherib’s Southwest Palace, as well as excavated archaeologically, creates an almost unique case study.

Excavations at Lachish were first carried out between 1932-1938 by a British expedition under James L. Starkey. Much of these excavations focused on the summit of the mound, which dates to the Iron Age and later. In 1973, Tel Aviv University once again began full-scale excavations at the site under David Ussishkin (Ussishkin 1982: 19-23). The British excavation did not have the careful stratigraphic approach used by more modern excavators, so care should be used in ascribing dates to artifacts from the destruction level. It is possible that some of these remains could actually date to the battle of 588/586 B.C.E., when a Babylonian army under Nebuchadnezzar II attacked Lachish (50).

Both the topography and the presence of the nearby city gate, led the Assyrians to attack Lachish from the southwest. Extensive excavation in this area revealed abundant traces of heavy burning, slingstones, arrowheads and, most remarkably, an Assyrian siege ramp (Ussishkin 1982: 49-54). At Nineveh, Sennacherib’s reliefs depict such siege ramps being used by battering rams and soldiers during the attack of the city. The remarkable details of the city’s
walls and the method of the Assyrian attack have been compared to the archaeological remains at Lachish. Barnett and Ussishkin have even gone so far as to suggest that a specific vantage point can be identified where the artist would have stood to make sketches which were later translated into the reliefs (Barnett 1958: 161-164, Ussishkin 1982: 119-126). The Level III city was looted and then burned to the ground by the Assyrians and evidence of the battle is to be found everywhere, including hundreds of arrowheads and slingstones, armour scales, and a possible helmet crest (Ussishkin 1982: 54-55). These in turn can be compared to the military equipment in use on the reliefs.

The site of Hama, located on the Orontes, has a long history of human occupation with material on the tell dating from the fifth millennium B.C.E. through to the thirteenth century C.E. Danish expeditions (1930-1938) identified the Iron Age phases as E and F which are also paralleled by cemeteries to the south and west of the citadel.\footnote{Unfortunately, the published material from the cemeteries at Hama was not included in this study, only the examples from excavations on the tell.} The excavators divided these phases into F2 (1175/1150-1075/1050), F1 (1075/1050-900), E2 (900-800) and E1 (800-720), ending with the destruction of the city by Sargon II (Riis and Buhl 1990: 18, Fugmann 1958: 278). Weapons found include arrowheads, partial spearheads, and fragments of daggers and swords. Those of use to this study mostly date from the 11\textsuperscript{th}-9\textsuperscript{th} centuries B.C.E. thus providing early examples of weaponry from outside the Assyrian empire.

Another site which produced a small selection of Late Assyrian arms and armour is Carchemish, located on the west bank of the upper Euphrates river. As it is presently located somewhat sensitively on the modern Turkish/Syrian border no excavation has taken place there since 1920. The principal archaeological work was done by the British between 1911-1914 under the direction of D.G. Hogarth, Campbell Thompson, and C. Leonard Woolley.
House D was one of the most solidly constructed private houses found. It had been burnt and blackened by fire during its destruction and then abandoned, never to be later disturbed. The destruction was presumably that of Nebuchadnezzar’s capture of the city of Carchemish in 604 B.C.E. Despite its survival to the end of the seventh century, the house is of a single building period and may date to the beginning of the Late Hittite period (Woolley [1921] 1969: 123-129). Therefore, House D can be considered to represent “the residence of a well-to-do gentleman of Carchemish at the close of the Late Hittite period” (123), his importance reflected by the presence of clay seal impressions from both the Egyptian and Assyrian courts.

Weapons found within the building included iron arrowheads, small ‘lanceheads’, and a possible sword, as well as a bronze shield.

The West Gate of the inner city wall also produced some possible items of interest to this study. The gate is, unfortunately, quite confusing stratigraphically; however, it appears that at some time between 700-604 B.C.E. the outer part of the gate was breached and then entirely bricked in (Woolley [1921] 1969: 79). It is to this same period that an iron dagger and a thin bronze greave can be dated.

Other sites in Syria and southern Turkey have also produced quantities of Late Assyrian arms and armour which have yet to be published. These include large quantities of armour scales from sites such as Tell Tayinat, Ziyaret Tepe and Tell Ahmar, the latter of which also has a number of daggers. In other cases, published plates do not contain sufficient information to be useful. *Tell Halaf IV* illustrates a socketed spearhead and a few daggers, but without findspots, or even definitive information concerning whether they are made of bronze or iron (Oppenheim 1962: pl. 36, 37).
I.4 Metal working

A few final comments need to be made about the use of iron versus bronze in the Late Assyrian period. Iron is usually considered to be a technological advance over bronze, to be cheaper, more readily available, stronger, and capable of holding a sharper edge (Gabriel and Metz 1991: 19-20). However, this is not necessarily true.

Iron working developed gradually and is unlikely to have been a full-fledged industry in Assyria until the first centuries of the first millennium B.C.E. Iron was not cheaper or more readily available than was copper. However, increasing demands for large quantities of weapons to supply the Assyrian army, eventually put a strain on the supplies of tin necessary to make bronze. Furthermore, iron ore deposits are not as widespread as commonly believed. Assyrian inscriptions describe great quantities of iron received as tribute, trade, or booty, both as objects and raw material, so its acquisition was as important as that of more precious materials. As the supply became more plentiful through their expanded contacts, especially with Anatolia and the Neo-Hittite states of Syria, an enormous quantity of weapons could be made more cheaply, and a weapons explosion became possible. It was not until the sixth century, however, that iron became cheaper than copper/bronze (Moorey 1994: 263, 286-287; Gabriel and Metz 1991: 19-20).

Iron is useful for providing a cutting edge that can be resharpened and therefore is particularly important for the manufacture of tools and weapons. Iron tools, however, were more difficult and time-consuming to manufacture and took a lot of new techniques for the metalsmith. Iron had to be heated and hammered rather than cast. Only after learning such techniques as carburization, hammering, and quenching does iron truly become a stronger and less brittle metal than bronze (Moorey 1994: 286).
Most common metal objects found at Nimrud were of iron, especially in the workshops and storerooms of Fort Shalmaneser where, for example, the whole north end of Room SW7 was filled with a mass of corroded scale armour to a depth of almost one and a half metres. However, bronze was still used in considerable quantities, especially for armour or for objects which were made of a combination of both metals (Oates and Oates: 2001: 248). While iron was predominant at Nimrud, more bronze objects were found at Khorsabad (Moorey 1994: 263).

The use of both bronze and iron may show the Assyrian practicality in choosing the correct metal for the task of an object. Bronze is lighter and consequently is frequently used for shields and helmets. One example of an iron Assyrian helmet weighed approximately 3059 g versus similar helmets in bronze from Iran, which weighed 860 and 700 g (Moorey 1994: 290).\(^{11}\) Bronze can also be cast, making it ideal for the mass production of arrowheads or armour scales.\(^{12}\)

Iron armour, on the other hand, provides greater protection due to its strength and was more easily repaired by military blacksmiths. Its negatives were greater weight, heat conductivity and a tendency to rust. Some of the Nimrud scales show that they were mildly carburized, improving their strength and reducing their brittleness. Some iron helmets were made in one piece and decorated with bronze; while cheaper ones were made more economically in multiple pieces (Moorey 1994: 290-292).

Most of the evidence we have comes from the Late Assyrian palaces, and since only a fraction of the metalwork found has ever been published, it is difficult to study Assyrian metalworking techniques. Metallurgical studies are further complicated by the fact that iron

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\(^{11}\) Kendall (1981: 211-214) suggests that bronze scale helmets could, however, reach similar weights to the iron examples (see Chapter 6).

\(^{12}\) We shall see that in fact it appears that most bronze scales were hammered into a form just like the iron ones (see Chapter 5).
remains are usually highly corroded, making analysis difficult. Finally, no evidence of smelting or metalworking has yet been discovered in Assyrian contexts, probably because such industrial areas would be in the outer town away from residential areas (Oates and Oates 2001: 249). The design and use of Late Assyrian arms and armour, therefore is best served by studying the artifacts themselves, and the pictorial reliefs which represent them.
I.5 Methodology

To test our thesis that the art of the Late Assyrian reliefs cannot be trusted to reflect real life accurately, choices had to be made as to which items of military equipment would provide the best potential results. Missile weapons were excluded, even though arrowheads and sling balls are readily available in the archaeological record, because bows and slings themselves were made of perishable material. Thus, we are provided with only a partial image of these weapons as a whole, and those parts which are the least visible in the artistic representations. The trappings of chariotry and cavalry were also excluded as they are difficult to identify archaeologically. This exclusion seemed especially valid considering there is already considerable literature on the subject of chariotry and horsemanship.\(^\text{13}\) The infantry was the heart of the Assyrian army, thus we will examine the following equipment of the individual soldier: offensively – sword, dagger, and spear; defensively – shield, helmet, and armour.

Since this study intends to highlight the importance of studying the artifactual remains alongside the artistic representations, a few words should be said about the source materials that will be examined. Many excavation reports mention the discovery of bronze and iron remains, but few publish any data pertaining to these. Iron objects from the Late Assyrian period include: swords, daggers, spearheads, armour scales and helmets. Unfortunately, most of these are severely corroded when excavated. Bronze was still commonly being used for shields, armour scales and some helmets.\(^\text{14}\) The poor condition of these artifacts meant that they typically did not survive nineteenth century excavation methods and, even with the advent of modern conservation techniques, they are often not in a condition to be identified, let alone

\(^{13}\) For chariotry and cavalry see most notably Littauer and Crouwel 1979 and 2002, as well as their extensive bibliography. Littauer and Crouwel 1985 has a good drawing and glossary for the technical terms of a chariot and horse’s tack. Also Spruytte 1983, and articles by Dalley 1985, and Noble 1990. In German, are the works by A. Salonen 1950 and 1951. Most recently published is an excellent book by Robert Drews 2004.

\(^{14}\) I shall use the term ‘bronze’ throughout this study even though the lack of metallurgical analyses means that no identification of the copper alloys involved has been made. However, in this time period, bronze was commonplace, so ‘copper’ will only be used if it is specified by the author being referenced.
published. Consequently, to test my thesis, I selected only items which could be personally examined or for which there was sufficient documentation and illustration to make analysis possible.

Furthermore, excavated artifacts with clear provenience were chosen as much as possible. Where museum records have made it difficult to ascertain an object’s provenience, if there is strong reason to believe it came from a particular site, the object has been included with an explanation. This is particularly true of items transported to museums during the nineteenth century without clearly catalogued identification. The question of provenience also made it necessary to leave out a wealth of materials from Luristan which are of a doubtful origin. It was felt that an insistence on provenienced artifacts was especially necessary in a study such as this. A forger searching for a representation of an artifact could do little better than to look to the Assyrian reliefs for guidance. As we are intending to use actual artifacts to test the validity of the depictions upon these reliefs, possible forgeries could lead to circular argumentation.

A wide variety of sources were used to study the artistic representations. Unfortunately, photographic reproductions do not always provide enough detail to evaluate fine detail. The orthostats on display at the British Museum provided the opportunity to study these works first hand; however, most of the time, other works had to be consulted. The early publications of Layard (1849a and 1853a) and Botta ([1846-1850] 1972) were particularly valuable, though they pose the dangers of having themselves been drawn by artists; yet another filter through which these images passed with the possibility for mistakes to arise. This can be seen when comparing drawings by Layard with photographs taken of some of the reliefs. These volumes are also not widely accessible; however, the reliefs from the British Museum have been photographed and published in many other reference works which are more readily available.¹⁵

Another reference work is Gadd’s *Stones of Assyria* (1936) which attempts to identify the whereabouts of many reliefs located in smaller museums around the world.

Other sources of artistic images included the three sets of bronze gates found at Balawat, ivories found at Nimrud and Hasanlu, and the paintings of Til Barsib. These were mostly available only through published illustrations. While the bronze gates of Shalmaneser III are available for view at the British Museum, their presentation and height makes detailed examination impossible. The most visually useful images of these bands is still the work of L.W. King (1915), though Schachner (2007) provides excellent sketches of all the scenes. The new publication of the two sets of Ashurnasirpal II’s gates by Curtis and Tallis (2008) provides images of these gates for comparison. The ivories were studied with the assistance of the ‘Ivories from Nimrud’ series including volumes by Mallowan and Herrmann (1974) and Herrmann (1986, 1992), and Muscarella’s *The catalogue of ivories from Hasanlu, Iran* (1980). Finally, the paintings of Til Barsib are illustrated in Thureau-Dangin and Dunand (1936).

All of these works played an invaluable part in providing the artistic representations to which the artifacts could be compared and contrasted. Having a variety of different media also provided an opportunity to study whether the various craftsmen emphasized similar features of weaponry, thus suggesting that these features were in fact significant and standard. These comparisons between art and artifact will enable us to discover whether or not the images were a true reflection of reality.

To this end, in the following chapters, I will approach each class of object by first presenting the artifactual remains and then looking at the pictorial representations. Textual material will also be included where it serves to elaborate the discussion. Chapters 2 to 6 examine swords and daggers, spearheads, shields, armour and helmets respectively.
In Chapter 2, a simple typology of Assyrian swords and daggers, principally from Nimrud, will be discussed and then compared with the typology created for the much larger corpus from Hasanlu. A quick overview of Madhloom’s swords typology from the reliefs serves to bring to the fore some of the weaknesses in his approach. Many of his divisions are based on artistic ornamentation rather than physical characteristics and still other categories must be called into question entirely. It is unfortunate that the small quantity of material in this category brings into question how well it can be considered to represent the situation in ancient Assyria. While there are several daggers which, as shall be seen, form a clear typological grouping, the swords are too individual to provide us with much insight into the Late Assyrian weapons.

By contrast, a larger quantity of Late Assyrian spearheads exists, allowing for a clearer typology and the conclusion that a higher degree of representativeness may be assumed for the material in Chapter 3. It follows a similar approach to the previous chapter, with the addition that the larger corpus of materials allows for a discussion as to whether the findspots of individual items can aid in assigning dates to the typology. With spearheads we are again fortunate to have for comparison the hundreds of examples from Hasanlu. As spearheads themselves are quite difficult to evaluate for form in the reliefs, our discussion here turns to one of function. The various types of spearmen visible in the reliefs may represent different ethnic peoples or different military units which serve different functions within the Assyrian army. The cavalry also carry spears which may be used in a variety of ways. We will examine to what extent these arguments can be made based upon the reliefs and whether or not the artifacts support them.

Chapter 4 takes a quick look at the existing shields from Assyria and Urartu, but due to the limited selection of existing artifacts the typology is deferred to the section on the pictorial
evidence. The vast array of shield types illustrated upon the reliefs are evaluated as to why they may not appear in the artifactual record and whether the remaining artifacts fit into this typology. Further, this chapter provides the first good chance to explore some of the many difficulties with illustrating Assyrian arms and armour presented to the artist, and how his decisions may affect our interpretation.

In discussing armour, a case study is made of the site of Nuzi where, for scale armour, a close link can be made between artifact and text. Assyrian scales from Nimrud are then quantified by both material and shape to see what patterns emerge. A large number of scales is available presumably providing a good representative sampling. The pictorial evidence hinges mainly upon the many patterns which may or may not indicate scale armour in the reliefs, providing another opportunity to discuss the difficulties in interpreting artistic representations.

The final chapter on helmets is taken largely from the work of Tamás Deszö who evaluated Iron Age helmets based on the artifacts themselves. The two main types of helmets are examined with comparative material from Zinçirli, Hasanlu, and Urartu; then Dezsö’s helmets are compared with Madhloom’s typology. Finally, I use the textual data from Nuzi to suggest a third type of helmet.

In my conclusion we will revisit the question of art reflecting life accurately in light of the Late Assyrian arms and armour. By combining art, text and artifact to study the weapons and comparing the result to those gleaned by the reliefs alone, we can evaluate the degree to which the art can be trusted to aid our understanding.
Chapter II: Swords and Daggers

The reliefs of Ashurnasirpal II depict long, elaborate swords which seem to emphasize the glory of the Assyrian ruler and his high official. However, swords do not appear to hold a very important position in depictions of the Assyrian military, and after the ninth century they appear as little more than an afterthought in the reliefs. How are we to interpret this disregard for a weapon valued so highly and treated with great respect at other times in the world’s history? Unfortunately, information concerning swords and daggers is also scarce in the artifactual record. Only a small number of artifacts exist from Assyrian contexts to try and form a typology. Daggers are somewhat more numerous and thus probably form a more representative sample, but, while some swords also fit into the dagger typology, others are virtually unique raising questions as to the true appearance of the Late Assyrian sword. The swords and dagger can then be compared to the much more extensive corpus of material from Hasanlu as well as to the Late Assyrian reliefs.

II.1 Swords and Daggers: Artifactual Evidence

Swords and daggers comprise one of the most intriguing, yet complex categories of Late Assyrian weapons. Unfortunately, few have survived for a variety of reasons. First, swords represented a substantial investment in a valuable substance. Their large size did not lend to their being simply lost or overlooked. Swords captured in battle would have been reused; and when they had reached a point where they were too badly broken or outmoded in style, they would have been melted down rather than discarded. Secondly, by the first millennium B.C.E., iron technology had reached a level of sophistication where, at least for edged weapons, iron had almost completely replaced bronze. However, as pointed out in Chapter 1, iron does not
withstand the test of time as well as bronze, and the level of corrosion suffered by many of the extant artifacts makes their examination difficult.

Terminology concerning swords varies depending on type of weapon and time period. For the purposes of this discussion, the following illustrations represent some of the parts of a sword or dagger (fig. 2.1). The tang, which is the extension of the blade that fits into the grip, is not labelled separately, because in the case of Late Assyrian weapons, the tang is the solid section that makes up the entire hilt. In the Bronze Age, it was more common to have thin tangs to which some sort of hilt was affixed.

A brief comment should be made about the functional difference between a knife and a dagger. Unlike a dagger, a knife, only has one cutting edge rather than two. While it is highly probable that knives were occasionally used as weapons, they were primarily designed to be tools. Furthermore, knives are not illustrated in Late Assyrian reliefs as a soldier’s weapon and consequently, they have not been included in this discussion.
Fig. 2.1: Parts of swords and daggers.

Note: The type of guard shown in Fig. 2.1a has not been found on any existing Assyrian weapons and is merely illustrated to aid in discussion of weapons at Hasanlu and on the reliefs (© Courtesy of the Hasanlu Project).
II.1.1 Artifacts from Assyria

The Late Assyrian weapons examined for this study are all very short in length, which makes determining what classifies as a sword or a dagger a fairly difficult task. Many of them have been called both daggers and swords interchangeably in publications. For my purposes: I have used Colonel D. H. Gordon’s divisions as a starting point (1953: 67)\textsuperscript{16}:

<table>
<thead>
<tr>
<th>Type</th>
<th>Length Description</th>
<th>Length in cm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dagger</td>
<td>14 inches or less</td>
<td>(35.5 cm or less)</td>
</tr>
<tr>
<td>Dirk</td>
<td>14-20 inches</td>
<td>(35.5-51 cm)</td>
</tr>
<tr>
<td>Short sword</td>
<td>20-28 inches</td>
<td>(51-71 cm)</td>
</tr>
<tr>
<td>Long sword</td>
<td>over 28 inches</td>
<td>(over 71 cm)</td>
</tr>
</tbody>
</table>

I have chosen to place all weapons above 35 cm in the category of short swords, avoiding Gordon’s use of the term dirk. Nothing yet found in Assyria reaches the required length of 51 cm to fit into Gordon’s classification for a short sword, let alone the 71 cm length of a long sword. Therefore, a simpler terminology is used by creating just two divisions, short swords and daggers, differentiated by those above and below 35 cm. It may be suggested that a consideration of blade length rather than overall point to pommel length might also be used to categorize swords versus daggers. However, the similarity of hilt lengths amongst our samples would render only minor variations in the results.\textsuperscript{17} Gordon’s classifications work remarkably well when compared to the existing artifacts. Taking into account the probable lengths of missing sections, a clear separation into two distinct groups is apparent (fig. 2.2). One group of edged weapons falls neatly between 24 and 30 cm in overall length, and will be taken to represent daggers. The other examples, though far less consistent, are all more than 35 cm in length, with the largest probably little more than 45 cm. These will be classified as short swords in this study.

\textsuperscript{16} Gordon makes four divisions measuring from point to pommel, and assuming an average hilt length of four and a half inches including pommel (1953: 67).

\textsuperscript{17} Where it is possible to evaluate, the hilts appear to follow a similar proportion to the blades of 1:1.5-2. All of these are one-handed weapons, so concerns that might apply to larger two-handed weapons do not factor in here.
Fig. 2.2: Sizes of swords and daggers based on estimates of original lengths.

While these weapons seem small to our modern notions of swords, they fit in quite reasonably with blade lengths of the ancient world. Only during the medieval period do swords reach a length of more than 75 cm (30 inches). Consider the following sword lengths for various periods:

<table>
<thead>
<tr>
<th>Period</th>
<th>Egyptian sword</th>
<th>Greek sword</th>
<th>Roman sword</th>
<th>Early medieval</th>
<th>Frankish sword</th>
<th>Saxon sword</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ancient</td>
<td>17 to 36 inches</td>
<td>14 to 25 inches</td>
<td>19 to 27 inches</td>
<td></td>
<td>30 inches</td>
<td>30 inches</td>
</tr>
<tr>
<td>16th century</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19th century</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17th century</td>
<td>Rapier</td>
<td>Small sword</td>
<td>Military sword</td>
<td></td>
<td>Small sword</td>
<td>Military sword</td>
</tr>
<tr>
<td>18th century</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>32 inches</td>
<td></td>
</tr>
<tr>
<td>19th century</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>38 inches</td>
<td></td>
</tr>
<tr>
<td>20th century</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fig. 2.3: Historical sizes for swords (Evangelista 1995: 60-61).
(The Assyrian swords would fall into the same size category as the Greek swords.)
The small size of ancient swords is not a reflection of smaller sized people. It is quite obvious in the reliefs that drawn swords appear to be little more than daggers. Rather, in the ancient world, a sword was a secondary weapon, after the spear and the bow. Only with the Romans do swords truly take their place as a primary military weapon.

Both swords and daggers show typological similarities, therefore they will be studied in conjunction with one another. To some extent this also alleviates our previously expressed concern with whether all of these items are truly long enough to be considered swords. Most of the swords and daggers available for study came from Nimrud and were excavated either by Layard or Mallowan. They come from a variety of areas of the site including Fort Shalmaneser, the Northwest Palace, the Burnt Palace, Layard’s ‘South East ruins’, and a trial trench dug by Mallowan in the outer town. One of the swords comes from Sharif Khan and a couple have questionable proveniences which will be discussed later.

All but one of these weapons are made in one piece with the blade continuing on to a tang which forms the hilt. Ten are of iron, two are bronze, and one is bimetallic. It is the bimetallic dagger which was made in two pieces as it consists of a bronze hilt cast onto an iron blade.

*Type 1: rectangular tanged hilt with flanges and rivets*

The most common shape represented has a hilt made up of a rectangular tang with flanges and rivets, presumably to hold an inlaid handle. The five examples of this type in Figure 2.4 are all made of iron. They consist of two short swords from Nimrud (fig. 2.4a, b), which are just over 35 cm in length, and three daggers, two from Nimrud (fig. 2.4c, d) and one from Carchemish (fig. 2.4e). The similarities between all five certainly raise questions about whether all of these weapons should perhaps be considered daggers. The number of visible rivets ranges
from two to four. The dagger shown in Fig. 2.4d still has traces of its inlaid hilt, possibly an organic substance, perhaps wood or ivory? There are a few minor variations: Fig. 2.4d and 2.4e have a slight flare at the end of the hilt, and the hilt of Fig. 2.4b tapers slightly, narrowing towards the shoulder. These are characteristics that will be seen later in this type of dagger in the reliefs. Both swords and daggers show a gently curved shoulder. Figure 2.4a and 2.4e can be attributed safely to the seventh century B.C.E. The former was found above the white plaster floor in Room T20 of Fort Shalmaneser at Nimrud and therefore probably dates to the time of the site’s destruction, and the latter was found near the bricked in section of the West Gate of the inner city wall at Carchemish (see Chapter 1). The Carchemish example was also found with a small round white stone object beside it which may have been a pommel which fitted on to the end of the tang (Woolley [1921] 1969: 81).

The Sharif Khan sword (fig. 2.5) may also fit into this category, but since only the lower half of the hilt survives, we cannot be sure what shape the end of the tang was or whether or not some sort of pommel existed. A portion of the blade is also missing, so estimating its length is problematic. Its tang is very rectangular in cross-section, and what appear to be flanges around the edge may in fact simply be severe cracking from corrosion. There is no evidence that it ever had rivets.

A modification of this basic shape, Type 1a, can be seen in two bronze swords and a bronze dagger which have tangs with concave-sided hilts, curved ends, and a squared ricasso with flanged edges. None of these show any signs of rivets.

The provenience of the two swords (fig. 2.6a, b) is problematic. When I first viewed them in 2002 they were on display in the British Museum gallery labelled as being possibly from Ur and dated to the 15\textsuperscript{th}-10\textsuperscript{th} centuries B.C.E. However, the close similarity between one of these swords and one drawn by Layard in *The Monuments of Nineveh* (1849a: pl. 96 no. 10)
suggested that it was actually from Nimrud.\textsuperscript{18} Accession information suggests that the other sword is indeed from Ur and was acquired in 1930 from Woolley’s excavations there (fig. 2.6a). It need not therefore concern us, except as comparative material for the Nimrud example. The two swords are indeed quite similar in shape, design, and material. Figure 2.6b also represents the only bronze sword found at Nimrud. It was found by Layard in the “S.E. ruins” (1849a: 22). Is this sword then also to be dated to the Middle Assyrian period, perhaps as an heirloom?

The bronze Type 1a dagger (fig. 2.6c) helps to answer this question. It comes from Hama period F1, dated by excavators to 1075/1050-900 B.C.E. This weapon indicates that similar swords as that from Ur continued on into the first millennium and probably down into the ninth century where such weapons appear in the reliefs of Ashurnasirpal II. These three Type 1a weapons probably serve as examples of the what would develop into the later Type 1 iron swords and daggers already discussed.

Another variation, Type 1b, is illustrated by Mallowan (1966: fig. 367) as having come from Fort Shalmaneser. It is unfortunately broken at the very start of the hilt which makes its identification difficult. The remaining section appears to be flanged, but narrower than our other examples, and the sides curve out and in suggesting a wave pattern to the hilt rather than purely rectangular. The existing remains of the sword are 27.6 cm in length, but as a large part of both blade and hilt are clearly missing, I estimate its original length to have been over 40 cm. Mallowan also indicated that the blade had a cylindrical mid-rib (1966: 441, fig. 367, n. 97). This type is rare in Western Asia though there are examples at Megiddo and Hama (1200-800). It is more common in the Eastern Mediterranean and comes from areas further west (Curtis 1979).

\textsuperscript{18} I later discovered that Curtis had also made this hypothesis (1979). Confusion in the British Museum’s attributions of items from Layard’s excavations to other British Museum projects occur several times in this paper. Obviously, this is a difficulty with material from these early excavations. See for example: Chapter 4, Shields, n. 28; and Chapter 6, Helmets, n. 39.
The blades of all of these Type 1 swords and daggers generally taper gently down to a softly rounded point. Only Fig. 2.4a is slightly different in having very wide shoulders compared to its tang, which gives it a more leaf-shaped appearance.

Type 2: crescentic pommels

One sword and one dagger, found at Nimrud, seem to have originally had crescent-shaped pommels as far as can be determined by their present condition. The sword (fig. 2.7) has a flanged grip with two ‘bolts’ sticking out of each side. The area between these ‘bolts’ on both edges has a faint grainy impression which suggests that some organic material was attached between them. This is topped by a flat pommel with an indented thin central section surrounded by thicker edges. The thick edges might once have formed a complete crescent shape but are now partially missing. It is possible that the thin central section would have been covered by some sort of inlay; two small nails still exist on the edge which might have held it in place. This sword shows similarities with Iranian examples that date as far back as the late second millennium B.C.E. Since it was discovered by Layard in the Northwest Palace we might be looking at an earlier type sword dating back to the ninth century, rather than the more common Type 1 weapons mostly found in Fort Shalmaneser, which in at least one case can definitely be dated to the seventh century. Parallels will be drawn between this sword and ones found at Hasanlu below.

Instead of having the straight hilts we have seen previously, the Type 2 dagger (fig. 2.8a) has a bulbous grip in the middle and a pommel that flares out to form a crescent shape. While it does not have any flanges, it still maintains the rivets for holding a handle inlay.

Figure 2.8b illustrates a dagger that is a slight variant of our Type 2 weapons. It has a more rounded shape to the pommel rather than flaring out like the crescent-shaped examples.
This shall be considered Type 2a. Like Fig. 2.8a, it has the remains of rivet holes but appears to lack any flanges. The hilt is not bulbous, but does gradually widen out into a leaf-shaped blade, rather than maintain the rigidly straight sides of our Type 1 daggers and swords. This dagger was discovered at Nimrud in the Burnt Palace, Room 47, phase F. Phase F refers to the final period of the palace up to the destruction level so it is quite likely that this dagger comes from the final days of Nimrud, in the late seventh century B.C.E. (Oates and Oates 2001: 125).

The two-dimensional drawings could easily suggest that the pommels of the Type 2 weapons are mushroom in shape, but in fact the hilts and pommels are flat in section. This confusion of two-dimensional illustrations of three-dimensional objects will of course affect the realities as conceived from the reliefs.

*Type 3: bimetallic example*

The final category is for a single unique dagger housed in the Ashmolean Museum in Oxford (fig. 2.9). It is a dagger composed of an iron blade and a bronze hilt, and was found at Nimrud in a house on the city wall. Its pommel is cast in the shape of a knuckle bone, probably of a sheep or goat. Just below the knuckle bone is a triple band with an attached loop. This dagger shows the willingness of the metalsmith to combine metals to use each to their best advantage. Iron was used for the blade due to its strength and bronze for the hilt due to its ability to be cast into decorative shapes. Bimetallic weapons are far more commonplace in Iran than in Mesopotamia. Iran has a tradition of casting bronze hilts onto iron blades or other creative mixing of the metals for weapons (see Hasanlu examples below and in Chapter 3). However, Chapter 6 will present examples of Late Assyrian iron helmets with bronze decoration showing that bimetallic techniques also were known in Assyria.
The combination of metals used in this dagger might also suggest an earlier date than most of the other swords and daggers from Nimrud. Unlike most of the other weapons which came from storerooms, it was found in a house and could have been an heirloom passed down for generations. Alternatively, in the first millennium as iron became more common for utilitarian purposes, arms and armour of bronze sometimes have religious connotations. This will be seen to be true for spears from Hasanlu (Chapter 3) and shields from Urartu (Chapter 4). Therefore, it is possible that this dagger has some sort of ‘cultic’ significance.

The Ashmolean dagger (fig. 2.9) further demonstrates the problem of attempting to evaluate artifacts based on images alone. If this weapon were illustrated in the reliefs, not only could it not be recognized as bimetallic, its shape would lead to the supposition that it had a handle made of bone.

Sheaths

The British Museum has one example of a sword sheath (fig. 2.10), which was found by Layard at Nimrud. It is 50.5 cm long, a distance needed just to cover the blade, thus belonging to a sword substantially longer than any of our existing examples. This suggests either that much longer swords existed or that sword sheaths might be designed disproportionate to the blade they held (see discussion below). The sheath is made of bronze, diamond-sectioned in shape, and is decorated along one side with incised lines. Similar sword sheaths are shown in the reliefs (pl. 3).

The lack of sheaths in the archaeological record is hardly surprising, especially when considering the scarcity of swords themselves. It is quite likely that most sword sheaths were in fact of perishable material like wood or leather. One of our Type I swords (fig. 2.4b) shows the remnants of some type of organic matter along the corroded blade. While this might have been
from its deposition in the ground, particularly if it had been wrapped with cloth or leather to hide or protect it, it is equally possible that these are the remnants of the original sword sheath.

The absence of any other existing sword sheaths is unfortunate, as it is the sheath, not the sword, that is most often visible in Assyrian reliefs. The following examination of Madhloom’s typologies based on relief representations will show that he frequently depended on the details of the sheaths. Sheaths and hilts are far more obvious and variable features in the reliefs than the somewhat more prosaic blade itself.

II.1.2 Artifacts from Hasanlu

Thornton and Pigott’s forthcoming study on bladed weapons at Hasanlu provides us with a wealth of comparative material. Their typology is based on 22 swords, 28 daggers and 21 ‘short swords’. The following definition was used to differentiate amongst these groups:

For the purposes of this study, a ‘dagger’ is defined as a stabbing weapon having a blade length less than 20 cm, while a ‘sword’ is defined as a slashing weapon having a blade length greater than ~30 cm. ‘Shortswords,’ which fall somewhere between these two definitions, can also be considered extended daggers or ‘dirks’ (Thornton and Pigott forthcoming).

Furthermore, they came to a similar decision in choosing to group the swords and daggers together for the purpose of their typology. “A study of the various hilt types and the blade fragments … stands a far better chance of delineating daggers from swords than simply setting arbitrary limits on the blade lengths” (Thornton and Pigott forthcoming).

The hilts from Hasanlu came in a variety of materials including: iron, copper/bronze, stone, bone, gold, and frit. Fifty-six hilts were complete enough to be used in their typology. Of these, 23 are classified as Type I\(^\text{19}\), consisting of a guard that wrapped around the base of the blade (see fig. 2.1a). Since no Assyrian examples of this type have survived these shall not be

\(^{19}\) Note that their typology uses Roman numerals, versus Arabic numerals for the sword and dagger typology used in this study.
pursued here, but their connection to images in the reliefs will be explored later. The Hasanlu
Type II weapons are those whose hilt abuts the blade, and are divided into two types: Type IIA
whose guard, grip and pommel look like a single piece and Type IIB which appear
compartmentalized (though also still made of a single piece).

Type IIA is further subdivided into those with flanges and rivets to hold inlays (IIA1) and those
which are solid and not meant to hold inlays (IIA2). There are only four examples of
the latter, all quite unique in character, whose material (gold) or shape (hourglass) are unlike
anything indicated in the Assyrian record and therefore they will not be discussed here.
However, the Type IIA1 hilts represent over four-fifths of the 23 Type IIA examples at Hasanlu.
These are further subdivided into those with a mushroom or crescent-shaped pommel and a
plain grip/guard (IIA1a), and those that have a crescent pommel and a flared mid-grip, followed
by an indentation and then a square guard (IIA1b). Type IIA1 examples are mostly made of
iron and mostly daggers.

The Assyrian Type 1 and 2 weapons discussed above would generally fit into the
category of Hasanlu Type IIA1 weapons, but despite the general similarity in this classification,
it is difficult to find any direct comparanda. The Hasanlu examples come in a wide variety of
shapes, but none seem to parallel the rectangular tanged hilts with flanges which is our Type 1
weapon. Our Type 2 examples include one with a crescent-shaped pommel and a bulbous
middle to the grip (fig. 2.8a), and one which has a rounded pommel and a plain grip (fig. 2.8b).
The closest comparison may be made to our Type 2 sword which had a crescent-shaped pommel
and two odd protrusions on the grip (fig. 2.7). This shape brings this sword closer to one of the
Hasanlu examples (fig. 2.11a). As discussed above, this comparison and its findspot in the
Northwest Palace, may suggest that this is an earlier type of Assyrian sword than our Type 1.
The Type IIA1 hilts are the most common at Hasanlu, and the ones that show the greatest similarities to the Assyrian examples even if no direct parallels exist. This is not surprising as Thornton and Pigott point out “given that it is a style of dagger hilt found at sites from the Eastern Mediterranean to India from the mid-second to the early-first millennium BC” (forthcoming).

For the following comparison with the Late Assyrian reliefs it is the Type IIB swords and daggers that are the most fascinating. No two are exactly alike, but they all follow a general pattern of construction (fig. 2.11b).

They are designed to appear as if they are made from multiple pieces joined by bands of metal, but they are actually made from a single piece of iron or copper/bronze marked into different geometric segments from pommel to guard with flanges and rivets for holding inlays. All ten of these ‘compartmented’ hilts consist of five segments – pommel, first spacer, grip, second spacer, and guard – separated (when still present) by bands of copper/bronze wire. (Thornton and Pigott forthcoming)

There are no existing Assyrian parallels for these swords outside of the reliefs.

One other interesting artifact from Hasanlu is a bone crescent-shaped object with a hole in the centre. It is smooth on one side and rough on the other and is possibly the inlay of a hilt pommel. Several similar examples in stone were found in Burned Building II (Muscarella 1980: 100, fig. 204). A similar type of object might well have formed the pommel inlay to our Type 2 sword (fig. 2.7).
II.2  Swords and Daggers: Pictorial Evidence

The pictorial evidence for swords and daggers is complicated by the manner in which the Late Assyrian artist hid many of the weapons’ features as a time saving measure. Swords are depicted worn in a sheath suspended on a cord over the shoulder. In the ninth century in particular, these long swords are also covered by (or held under?) the decorative clothing worn by court officials. Men wearing such long swords frequently rest their hands on the pommels disguising the details (pl. 1). Swords drawn on the far side of the body from the viewer seldom depict the hilt at all, even when the angle of the body and the length of the sword suggest that they should. Finally, in some cases swords are actually illustrated as if worn on the right (incorrect) side of the body. One example from Sennacherib’s palace at Nineveh shows a whole scene of men with their swords worn in this fashion (Barnett, Bleibtreu, and Turner 1998: pl. 193). Clearly this represents a shortcut on the part of the artist, unless we are to presume that there was an entire unit of left-handed swordsmen.

Daggers are seldom seen later than the reliefs of Ashurnasirpal II and not often in the hands of soldiers, unless we are to interpret some of the small weapons in the hands of shield-bearers as daggers instead of short swords. Most frequently they are shown tucked into the belts of kings, high officials, and supernatural deities in the largest scale reliefs at Nimrud (pl. 4).

What follows is an examination of the typology created by T. A. Madhloom in The chronology of Neo-Assyrian art (1970). In this, and subsequent chapters, we will use Madhloom’s standard work to examine the validity of reliance on the reliefs for accurate historical dating of trends in weaponry. Comparison with the extant artifacts will show that these two forms of data do not always easily mesh together.
II.2.1 Swords

Madhloom defined four types of swords: two from the ninth century, one beginning in the reign of Tiglath-pileser III and the last beginning in the reign of Sargon II, though all continued on into later periods. He further subdivided them into many smaller categories based upon details of illustration. It should be noted, however, that this typology is based on artistic details as represented in the reliefs and many of these details concern decoration on the sheaths, not any significant changes to the swords themselves (Madhloom 1970: 44-49). As there are few existing examples of sword sheaths with which to make a careful comparison I would prefer to lump Madhloom’s many sword categories into three basic divisions.

1. Long, narrow, tapered swords

The first grouping contains the ninth century types, common in the reliefs of Ashurnasirpal II and Shalmaneser III and encompassing Madhloom’s Types 1 and 2 (1970: 44-45). These swords are slimmer and longer than those of the following centuries and marked by quite ornate decoration of both ricasso and sheath with lion heads or volutes (pl. 1 and 2). Examples with volutes were classified by Madhloom to distinguish his Type 2. The hilts appear to be round with a domed pommel. The blade tapers gently from hilt to point. The length of these swords is difficult to determine. Based on the few images that show these swords drawn from their sheaths (pl. 5), it appears that they may in fact be shorter than the sheaths imply. This could be an artistic flaw, but the lengths of swords and sheaths in the artifactual record does support such an hypothesis.

The ornate lion-mouthed ricassos are reminiscent of the Hasanlu Type I swords (fig. 2.1a). It cannot be determined from the reliefs whether the section of the sword which bears the
motif of an open lion’s mouth is truly the ricasso, a guard similar to those at Hasanlu, or perhaps the top of the sheath. There are sadly no extant Assyrian examples.

2. *Leaf-shaped blades*

Madhloom’s Type 3 are defined as being slightly leaf-shaped blades. Shorter and heavier than the ninth century types, they are first depicted in the reign of Tiglath-pileser III. The hilt and pommel are a simplified development of the earlier swords (pl. 6 and 7). This becomes the basic sword type of the Assyrian empire in all following periods as late as Ashurbanipal (Madhloom 1970: 46).

Minor variations in the shape of the hilt and pommel were used by Madhloom to subdivide this category into eight smaller categories (1970: 47). The hilt consists of a round grip with cross pieces above and below and a larger pommel than found earlier. In reliefs dating to Sennacherib and Ashurbanipal the pommels appear more gently rounded, like mushroom caps, rather than flat across the bottom. In one extreme case the pommel is illustrated as a concave disc. This is an early example of such pommels and may be explained as the artist’s unfamiliarity with drawing this new type. Ashurbanipal’s reliefs also show the end of a gradual trend toward the decrease in size of the cross ribs above and below the central rounded grip. This would create a handle with a much more comfortable grip without the angular edges of earlier versions of this sword. The grip in many cases has cross pieces protruding so far from the central section of the hilt that one wonders how such a sword could have been held.

Variations of the shape of the blade are not addressed by Madhloom. Once more we mostly have to rely on illustrations of sheathed examples. Madhloom uses the term “leaf-shaped” to define all of these weapons, yet in many cases a very angular V-shaped blade is suggested by the sheath. This is mostly true of sheaths that are illustrated as being “reinforced
with raised ribs along the centre and round the border” (Madhloom 1970: 46). These ribs, if we assume that that is what is being illustrated, accentuate the V-shape and may not reflect the shape of the blade within the sheath. Plain sheathed examples do mostly appear to have more gently curved shoulders and rounded tips. It is also possible that Madhloom’s “raised ribs” are in fact simply incised designs as seen on the existing sheath in the British Museum (fig. 2.10).

If a typology was based on the relief images alone, as Madhloom did, I would certainly agree with his many subdivisions. While my above grouping does have a number of typological variations within it, I would argue that these variations could easily be seen as differences in artistic representation of similar artifacts. Without clearer proof of these minor changes I prefer to consider this group of leaf-shaped blades in its entirety rather than use Madhloom’s many smaller categories.

3. Curved blades

Madhloom also described curved blades as a late type associated with foreign elements in the Assyrian army. The hilts are similar to those of the standard Assyrian sword, but the sheath ends in a small bud. He described such swords as being shown on the reliefs worn by auxiliaries serving under Sargon II and Sennacherib as well as in the frescoes of Til Barsib. Madhloom considered them a western type as worn by the enemy on the reliefs of Sargon II and shown as booty captured from Lachish (Madhloom 1970: 46-47). I think this whole category of swords is somewhat suspect. If one examines the six references Madhloom has to these swords in the reliefs several problems immediately become apparent. Two of his references actually refer to the same image, and while it does depict a sword with a small bud at the end of the sheath, the sword, as it is drawn by Flandin, appears slightly crooked at best. Furthermore, the relief in question has a crack in it, so any curve of the sword may simply be a result of the
damage (Botta [1846-1850] 1972: pl. 99). A further reference given for such a sword does not appear to have anything even resembling a curved sword in it, merely a woman carrying an unidentified curved item over her back. Botta ([1846-1850] 1972) does illustrate a curved sword on his Plate 159, but this is not a copy of a relief, but a plate of sketches of various items depicted on the reliefs. The caption to the image suggests that the curved sword depicted is from a relief shown on Plate 89, which is the only example among these reliefs which does possibly show the type of sword that Madhloom describes. However, it is a somewhat difficult illustration to interpret as the sword is largely hidden behind the body of the soldier wearing it. The Lachish relief does appear to have a pile of booty being carried by a soldier which may represent curved swords though the curve is quite slight and once again hidden behind figures in the scene (pl. 12). Finally, the only clearly curved sword from among Madhloom’s examples is the one from the frescoes at Til Barsib. Interestingly, this weapon is not in the hands of a foreign enemy or even an auxiliary, but an Assyrian soldier in pointed helmet and scale armour, hacking off the head of an enemy (Thureau-Dangin and Dunand 1936: pl. 51). This one clear example from Til Barsib does not suggest to me an entire category of swords.

Another oddity of these swords, as Madhloom suggests they are illustrated, is that they do not conform to the expected shape of a curved sword. They are formed in a gentle J-shape which end with the tip far off-centre from the hilt. Curved swords, to remain balanced, curve away from the hilt in an arc which places their tips back in line with the hilt. This is equally true of the later scimitar and of the earlier sickle-sword. The latter of course is a misnomer since a sickle is sharpened on its inner, concave edge, whereas a sickle sword is sharpened on its outer edge. The sickle sword goes back to the third millennium and was common down to at least the middle of the second millennium. A late Mesopotamian example is inscribed with the name of Adad-nirari I (1307-1275) (Muscarella 1988: 340-341). Sickle swords are also found in late
I would argue again that we are left with an image of a weapon that did not in fact exist (at least in this format). If such a thing did exist, it was far less familiar to the Assyrian artist and was consequently misrepresented.

II.2.2  Daggers

Madhloom (1970: 47-49) described six different types of daggers, once more subdivided into smaller categories on the basis of sheath decoration, quantity (i.e. pairs of daggers versus singles), or the inclusion of a whetstone in the set. In the absence of either extant sheaths or complete sets of daggers I have once again lumped his subcategories together. Furthermore, neither quantity of daggers nor whetstones are typological differences. However, Madhloom’s typology appears to ignore what I see as more basic structural elements in the design of the daggers, which I have used to regroup the available material. Furthermore, Madhloom’s Types 3 to 6 are all only illustrated being worn by supernatural beings or, in one case, by a possible priest in a ceremonial setting. As such, they should be considered ritual in nature and beyond the use of the ordinary soldier and will consequently only be discussed briefly.

1. Concave-sided hilts

The basic type of dagger which appears as early as the reliefs of Ashurnasirpal II has a hilt with slightly concave sides. It is often illustrated with a line drawn around the edge of the hilt and ricasso which has been interpreted as a flange to hold inlaid material. This line was not always indicated, though Madhloom chose to infer that flanges are always present (1970: 48). These flanges presumably held perishable material such as wood, bone or ivory that would have formed the handle of the hilt. These concave-sided hilts usually end in a rectangular ricasso of the same width as the blade. There is no pommel, but the hilt end was gently curved. Some
reliefs on close inspection show detailed designs inscribed on the dagger hilts which may indicate ornate handle decoration (Budge 1914: pl. 49). These daggers would appear to represent our Type 1a examples.

2. Tapering hilts

A variant not recognized by Madhloom consisted of hilts that do not have concave sides, but instead taper gradually down to a ricasso with more softly rounded shoulders. Sometimes illustrations of these daggers also depict a more rectangular end to the hilt rather than the rounder appearance of the concave type. These daggers most closely resemble our Type 1 examples.

3. “Sword”-hilted

Corresponding to Madhloom’s Type 2 (1970: 48), this type has a hilt which was an imitation of contemporary ninth century sword hilts, with a round grip and a crescent-shaped pommel, but without cross pieces. The square ricasso once again has a line drawn around the edge which could indicate a flange. This example only occurs once, on a stele of Ashurnasirpal II (pl. 8). Perhaps it was reserved for royalty, or it is a confusion by the artist with the royal type of ninth century sword.

4. Ritual weapons

This final grouping consists of many oddities in type not generally well represented. Madhloom has divided them into four separate categories (Types 3-6) but as they are not illustrated in use by the military, I have chosen to group them together for discussion.
Madhloom’s Type 3 has a concave-sided hilt, perhaps slightly narrower in the centre than those discussed above, and a round blunt point. This is illustrated worn by a half-human apotropaic figure on a relief of Ashurnasirpal II (Madhloom 1970: 48).

Type 4 is of more interest as it raises a couple of questions. Illustrations of this type in reliefs of Sargon II and Sennacherib show a round grip with cross pieces and a crescent-shaped pommel. Madhloom compares these pommels to ones found in Persia, where bronze hilts are ‘cast-on’ to bronze or iron blades (1970: 48-49). Here I must once again raise the question of how much actual form can be interpreted from artistic representation. Madhloom describes this type as having crescent-shaped pommels, though many of his Type 3 swords (Madhloom 1970: pl. 20-21) are also drawn as simple crescent shapes but interpreted as being concave domes. It is difficult to determine the three-dimensionality of any shape drawn in two-dimensions. The Late Assyrian reliefs of course are not entirely two-dimensional. Some reliefs are carved at some depth which can aid in interpretations of the shape that is intended to be represented. But this depth is not consistent, and such fine differentiations will have suffered from natural deterioration over time. We have seen examples of crescent-shaped pommels among the material from Hasanlu, and our Type 2 sword (fig. 2.7).

Madhloom’s Types 5 and 6 (1970: 49) return to dome-shaped pommels the main difference being the presence or absence of cross pieces on the hilt.

All of these four types are shown in association with fantastical creatures not regular people. The only exception being a Type 6 dagger worn by a priest for ceremonial purposes. This might also explain another feature of some of these daggers. Examples of both Types 4 and 6 are shown in scabbards with animal-headed sheaths. Madhloom suggests that this, along with the crescent-shaped pommels, suggests Iranian influence (1970: 49). It likely also suggests their ceremonial use.
II.3 Swords and Daggers: Summary Observations

The swords illustrated in the Assyrian reliefs seem sadly lacking in the artifactual record. No sword of the length suggested by the scabbards of the ninth century reliefs has been discovered. Nor has any Assyrian weapon come close to reproducing the grandeur of the sword hilts represented at the court of Ashurnasirpal II. This could be an accident of fate, or proof that all of the material found at Nimrud dates to the final decades before its destruction. It could even lead to the doubt that such swords existed at all. However, the beautiful Type IIB swords from Hasanlu provide us with wonderful examples of what the Late Assyrian weapons might have looked like (fig. 2.11b). They are also a warning that absence of evidence is not evidence of absence. Had Hasanlu not been excavated these swords might have seemed a figment of an artist’s imagination.

The Hasanlu Type I swords which have a guard that wraps around the blade also have no parallels in the Assyrian artifactual record. However, the ninth century reliefs provide pictorial counterparts in swords that have lion’s mouth guards, which seem to swallow the beginning of the blade. These are the same swords that have lion decorations on their sheaths. The characteristic decoration of lions rampant, or volutes on the sheaths of swords of the early period is also problematic. Does their complete lack of existence mean that they were carved of some perishable material like wood? Or is it possible that some of the animal heads in the archaeological record, such as those sometimes identified as parts of furniture, could in fact represent parts of these sheath decorations?

Little consideration is given in Mesopotamian literature to the purpose of these lions or volutes on the ends of the sheaths. Conspicuous consumption is considered reason enough. However, in military matters, even ornate decoration on a weapon usually has a practical origin. An interesting parallel was drawn by R. Ewart Oakeshott (1960: 42-44) between these Assyrian
sheath decorations and the bronze terminals, or chapes, on the sheaths of late Hallstatt swords in Europe (600-250 B.C.E.). He suggested that the Hallstatt swords, like the Assyrian ones, were worn hung from shoulder straps and therefore would be difficult to draw. This was due to their length, the loosely hung straps, and the probable presence of a shield in the left hand. To draw such a weapon, the wearer would catch the end of the chape behind his leg, thus anchoring the sheath firmly while he drew his sword. He goes on to suggest that the later disappearance of this feature in Hallstatt culture, as in Assyria, was the result of a switch to a shorter, less cumbersome sword.

The weapons best represented archaeologically, are our Type 1 swords and daggers with the long rectangular tangs that form the hilt. These and the bronze concave-sided examples (Type 1a) would seem to have parallels in the images of daggers worn in the belts of the large scale images in the Northwest Palace. Plate 1 seems to illustrate the concave hilt, rounded terminus, and square ricasso of the bronze Nimrud sword (fig. 2.6b), whereas depictions of more rectangular hilts, though tapering, with rounded shoulders are a closer parallel for the weapons in Fig. 2.4.

Possible Iranian connections were proposed by Madhloom, whose Type 4 sword had a round grip with cross pieces and a crescent-shaped pommel. The Type 2 weapons from Nimrud would seem to support this. One possible parallel for Fig. 2.7, the crescent-pommeled sword, is an example from Hasanlu which not only has a similar crescent-shaped pommel, but also shows knobs protruding from the sides (fig. 2.11a). This parallel reinforces my previously expressed suggestion that this is an example of a sword from an earlier period. Its long straight sides are also perhaps an indicator of an early weapon as compared to some of the slightly rounder shoulders or “leaf-shaped” swords, consider particularly the two known to date from the seventh century (fig. 2.4a and 2.8b).
According to Madhloom (1970: 46), swords in the Sargonid reliefs tended to be wider and shorter than in the previous period, a trend that climaxed under Sennacherib and Ashurbanipal where the short sword was really just a long dagger. This observation led him to conclude that the strategy of the Assyrian army had changed towards a heavy dependence on archers, spearmen, and slingers, the latter of which now appeared for the first time in Late Assyrian reliefs. Heavy chariots and mobile siege-engines also changed life on the battlefield. Entering into close combat by sword was unnecessary. A sword was a weapon of last defence, or simply for cleaning up after the main battle was done.

Comparisons between the swords in the reliefs and the extant artifactual record are difficult. Most noticeable are the lack of compartmentalized hilts which are so common on the reliefs. However, these fancy hilts may have been the possessions of kings alone, and their representations a recreation of the glory of Assyria. It is quite likely that the rank and file soldier had nothing more than a simple Type 1 dagger or short sword. That this is not the story represented on the reliefs is a warning that we should use caution when using the pictorial record as a source to indicate the actual military provisions of the common soldier.
Fig. 2.4: Type I swords and daggers (scale 1:2).
Fig. 2.5: Type I sword.
(Note that the two halves have been photographed with opposite sides facing upwards, if either is reversed the halves do fit together. Photo: © Trustees of the British Museum.)
Fig. 2.6: Type Ia swords (Photos: © Trustees of the British Museum).
Fig. 2.7: Type II crescent-handled sword (Full length photo: © Trustees of the British Museum).
a) crescent pommel  
b) round pommel

Fig. 2.8: Type II and IIa daggers (scale 2:3).
Fig. 2.9: Bimetallic dagger (© Ashmolean Museum, University of Oxford).
Fig. 2.10: Bronze sheath (Photo © Trustees of the British Museum).
Fig. 2.11: Swords from Hasanlu (© Courtesy of the Hasanlu Project).
Chapter III: Spearheads

The artifactual remains of spearheads are more plentiful than those of the swords and daggers discussed in the last chapter. This is probably due to their smaller size and lower value in metal. Their greater quantity creates more of an opportunity for creating a typology and suggests that we can consider this a more representative sampling from the Late Assyrian period than was possible for swords and daggers. However, the opposite is true for the pictorial record, as the small size of a spearhead makes its illustration often unclear, and fine details are lost quickly with the aging and wear upon the reliefs.

Some might prefer the term ‘lancehead’ particularly in connection with those used by the cavalry. As will be discussed below, I do not see the cavalry performing as lancers in the literal sense. In fact, ‘pike’ might be the best term if use alone is to be considered, as presumably the Assyrian infantryman held onto their weapon and used it for thrusting. However, I have chosen the broad term ‘spearhead’ for all of these objects.

Spearmen were vital to the Assyrian army in battle, serving as front line troops. They are shown skirmishing against enemy infantry and scaling siege ladders. Nadali (2005b: 227) has argued that even their position in procession is indicative of their front line placement in battle. The first units in the order of march would be the first troops to reach the theatre of war and thus be deployed upon the battlefield.

III.1 Spearheads: Artifactual Evidence

Spearheads have survived in fairly large quantities from the Late Assyrian period. Due to their size and solidity even iron examples have not corroded completely, and unlike swords and daggers, they do not appear to have been quite as tempting a target to looters.
A large number of spearheads have been found at Nimrud; most, though not all, come from the excavations at Fort Shalmaneser. Smaller quantities have also been found at Nineveh. Outside the Assyrian heartland, comparable material is found at contemporary sites. The site of Hasanlu, in northern Iran, provides a wonderful opportunity to study hundreds of spearheads from a datable context. These can in turn be compared to similar material from nearby Dinkha Tepe. To the north of Assyria, Urartu might also have provided us with good examples, but few if any spearheads excavated at sites such as Karmir Blur have been published. A similar situation is found for western sites, many of which have produced small numbers of spearheads, but only the published examples from the Assyrian destruction level at Lachish and those from Hama can be included. However, since as we have seen already, weapon types were becoming quite standardized across the ancient Near East by the eighth and seventh centuries B.C.E. much of this comparable material could belong to either Assyria or her neighbours.

III.1.1 Artifacts from Nimrud

In a study of a number of spearheads found at Nimrud in the 1957 season David Stronach defined three general types: those with a slim, lanceolate blade, a leaf-shaped blade, or a triangular-shaped blade. All but one of these were found together in Room NW15 of Fort Shalmaneser along with armour and decorative metal plaques. It is assumed that the looting of this room was abandoned when the walls threatened to collapse. Consequently, metalwork of less significance was still to be found on the floor when excavated (Stronach 1958: 169-170).

When compared to the overall corpus of spears from Nimrud available for this study\(^\text{20}\), Stronach’s three types serve fairly well. However, for my purposes, I will avoid his shape-based

\(^{20}\) The Nimrud spearheads studied include published material from: Stronach 1958; Curtis, Collon and Green 1993; ILN December 7 1957; and material examined and drawn by the author at the British Museum, London, the Ashmolean, Oxford, and the Royal Ontario Museum, Toronto. Some of the museum artifacts proved to be those published above providing me an opportunity to further examine the published material.
names in favour of describing them by their shoulder types. Type I spearheads, have little or no shoulder, generally tapering gradually from socket to point, and thus are what Stronach refers to as “lanceolate.” Stronach’s “leaf-shaped” blades have rounded shoulders and will be further subdivided into Types II and III based on their length and width. Finally, Type IV spearheads have angled shoulders, hence Stronach’s term of “triangular-shaped” though this is a misnomer. One other type Stronach mentions in passing as “poker-shaped”, and attributes his two examples as being ferrules or spearbutts (Stronach 1958: 170). While this is certainly possible for some examples of this type, others from Nimrud are too large to suggest this designation. I will refer to these as Type V: pikes.

Within these basic types the spearheads are further divided by the type of central support. Thus, those with an A designation (i.e. Type IVA) have a cylindrical mid-rib down the centre, B refers to a mid-ridge, and C to those which are elliptical. All of the spearheads studied are made of iron and are heavily corroded. This resulted in the loss of finer details such as mid-ribbing, and indeed only one example can be truly said to show this attribute. Therefore, any typology is a subjective exercise, and no doubt one could argue many finer divisions between the weapons presented here. However, with just twenty spearheads to consider, any further divisions would result in creating a typology where every spearhead represented a type. Hopefully, in the future, a greater corpus of published materials will allow for a more refined typology.

Two seemingly common characteristics of all Late Assyrian spearheads are that they were made of iron and socketed. The use of tangs, common in the Bronze Age, and still in use in Iranian sites such as Marlik (Thornton and Pigott forthcoming; Negahban 1995 and 1996; Khorasani 2006), had been completely replaced by a socketed haft. The one example of an iron tanged spearhead in the British Museum’s Late Assyrian collection shall be discussed later.
None of the socketed examples from Nimrud show any signs of socket rings or retaining rivets, so it must be presumed that they were hafted to the wooden shaft while still quite hot and as the metal cooled the socket would have contracted around the shaft (Stronach 1958: 170). Many examples still have remnants of the wooden shafts in the socket, and one remarkable example still has the complete shaft protruding from the socket to a length of 1.8 cm (fig. 3.6d).

Fig. 3.1. Parts of a Spear
Type I: Long and tapered with little or no shoulders (Fig. 3.2)

There are four Type I points in our study corpus (see footnote 20). The three complete examples range in size from 26 to 31 cm (fig. 3.2a-c), and the incomplete example would probably fit into this range if whole (fig. 3.2d). All four are of the Type IB variety with a pronounced mid-ridge and an elongated shape without the rounded shoulders of Type II. They also have sockets which end well before the start of the blade. This means that there is a solid section of the haft between the end of the socket and the start of the actual blade which increases the difficulty in defining this already only slightly differentiated area of these long tapering spearheads.

Type II: Long and narrow with rounded shoulders (Fig. 3.3)

Type II spearheads have rounded shoulders, defined necks, and are long and narrow. In length they range from 25.6 to over 34 cm, and in width from approximately 2.9 to 5.2 cm\textsuperscript{21}, with an average ratio of length to width of almost 8:1. The rounded shoulders curve down to a narrow neck before the haft tapers outward to form the socket. In this, Type II spearheads are different than Type I, which have a poorly defined neck and little or no shoulders, with the socket simply continuing on from the blade. All four of these examples are of the IIB type with a well-defined mid-ridge.

Type III: Short and wide with rounded shoulders (Fig. 3.4)

Type III spearheads also have rounded shoulders and narrow necks that taper back out to form the socket. But they are proportionally shorter and wider than the Type II variety. The four Type III spearheads measure from 13.0 to 18.3 cm in length, and approximately 2.4 to 5.4

\textsuperscript{21} The width measurements for spearheads which I did not personally examine had to be approximated from photographs or drawings. Therefore the measurements must be considered estimates only.
cm in width, a ratio of length to width of almost 5:1. It is this difference in the proportional measurements which most distinguishes this type from the Type II spearheads, which are proportionally narrower. Three out of four of these spearheads belong to Type IIIC, which is elliptical in cross-section, while the fourth is indeterminate. Not only are they elliptical in shape, but a surprising variation exists between the thin ellipse of the blade and the solid thickness of the socket. It will be remembered that the Type II spearheads with their longer and thinner profiles all had mid-ridges, perhaps a necessity to strengthen them over their greater span.

Type IV: Angled shoulders (Fig. 3.5)

Type IV spearheads are marked by the angle of their shoulders compared to the rounded ones of the last two types. In size, they range from 16.8 to 30.3 cm, though the smaller two examples are incomplete, they may also have originally been over 20 cm. The blades consist of all varieties of central thickening: mid-rib (Type IVA), mid-ridge (Type IVB), and elliptical (Type IVC). In fact, the only spearhead in this corpus from Nimrud that has a mid-rib is from this group (fig. 3.5a). As with Types II and III, the angled shoulder narrows to the neck which then tapers back out to form the socket. Type IV also follows Type I in appearing to have a solid section of the haft above the socket and before the blade begins. Here this is even more apparent, as the shoulders and neck are a clearly recognizable feature. This solid section of the haft should perhaps simply be considered a characteristic of any of the longer spearheads.

Type V: Possible pikes or ferrules (Fig. 3.6)

The four examples in this category should almost certainly not be lumped together since the differences in their lengths suggest a difference in their usage. However, it is problematic to
draw a dividing line to decide what criteria should be considered as the defining difference. The common feature of all four of these iron spearheads is a ‘blade’ with a circular or square cross-section which tapers to the end, instead of a flat cross-section. In size, our examples are 5.0, 10.5, 17.0, and 28.7 cm. Stronach (1958: 170) argues that his two examples (fig. 3.6b and c) were both ferrules, intended to be attached to the butt-end of a spear. His arguments hinged not only around the shape of these points but also their length. However, since other spearheads exist which are as small as fifteen to twenty centimetres long, length alone is not a sufficient explanation. Another characteristic found on two of these examples (fig. 3.6a and b) is a blunt end. This reduces the possibility that they were intended to be the fighting end of a spear. The two longer examples (fig. 3.6c and d), however, both have pointed ends, and as one is 28.7 cm in length, its use as a weapon seems probable. If we declare Fig. 6d to be another type of weapon, perhaps better called a pike than a spearhead, what do we make of other three Type V examples? The answer to this question really hinges upon the definition of the task of a ferrule. If it is intended simply to provide a solid metal end to a wooden shaft, then even a small, blunt ferrule (fig. 3.6a) would suffice. If, however, it is intended to be able to dig into the ground sufficiently to provide a brace for the spear upon impact, then blunt ferrules would be unsuitable.

Miscellanea

A final comment should be made about two last objects in the British Museum’s collection which I have left out of the above typology of spearheads from Nimrud. Both were discovered in the nineteenth century and are only questionably Late Assyrian spearheads. The first (fig. 3.7a), has a solid haft with a circular cross-section which, in its existing condition, shows no signs of having a socket. The chunky ‘blade’ has angled shoulders and is only three
and a half centimetres in length. While it is possible that this item belongs in our Type V category and is some sort of ferrule, it could equally be some sort of sword hilt or even part of a piece of furniture. There is no information about where this item comes from other than that it was found by Layard at Nimrud. A similar item was found at Hama (Riis and Buhl 1992: fig. 50, no. 199).

The second unique object was also supposedly found by Layard in the Northwest Palace (fig. 3.7b). It is the only example of a tanged iron spearhead from Nimrud. Tanged bronze spearheads were common in the second millennium and continue on for use with arrowheads into the first millennium. However, I know of no other example of a tanged iron spearhead from the Late Assyrian period. This example is 15.2 cm long, so cannot be considered an arrowhead, and is made of iron, so probably not an heirloom from an earlier period. It is possible that it represents an early transitional type of spearhead, copying bronze types into iron, or that it is booty from somewhere else. Several tanged spearheads made of iron discovered at Toprakkale and now also in the British Museum’s collection are quite similar to this example (Barnett 1954: 11). Their similarity suggests that Urartu may be the source of this spearhead. Another possibility is that this was not found at Nimrud, but actually is one of the examples from Toprakkale. Confusing proveniences for material excavated in the nineteenth century are not uncommon (see footnote 18). The fact that the information on the collections database at the British Museum describes this spearhead as being 8.26 cm in length, significantly smaller than the 15.2 cm of the actual object supports the notion that some mix-up has occurred. For the purpose of this study, it is best to exclude this item from discussion.

This typology shows that, apart from a few exceptions, no radical differences existed amongst the spearheads from Nimrud. There are certainly enough smaller differences, however,

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22 The information on the finds spots of this, and the following object were obtained from the British Museum’s searchable collections database on their website.
to warrant a typology. But what can these variations tell us? What, if any, significance do they hold? In his work on the reliefs, which will be discussed below, Madhloom tried to suggest general trends in the use of spearheads over time. Can any such deductions be verified in our artifactual record?

The answer, unfortunately, is no. Information concerning the exact find spots exists for eighteen of the twenty Nimrud spearheads used for this typology. Eleven were found in Fort Shalmaneser, five were found on the citadel and one in the outer town. The archaeological record excavated at Nimrud is very much a reflection of its state during and after its destruction in 612 B.C.E., but much of the material found was being held in storerooms and may date to an earlier period. This creates difficulties in establishing a chronological framework for these spearheads.

Most of the spearheads was found in Fort Shalmaneser. Room NW15 alone had ten of our examples. This should come as no surprise as it will be remembered that this was an area of military equipment workshops (see Introduction). In our typology, the spearheads represented are Type IIB, IIIC, IVA, IVB, and V. Only the Type I examples are missing. The presence of all of these types of spearheads together in the destruction layer of 612 B.C.E. suggests that caution should be used if trying to establish a chronological progression by type. While they might represent weapons which had been stored in Fort Shalmaneser over a long period of time, or even foreign booty, they also show that a variety of weapon types was still readily available in the seventh century.

The one other spearhead in Fort Shalmaneser was found between the floor levels of room T20 excavated in 1989 by the British Museum (see Introduction). This Type IB iron spearhead (fig. 3.2d) therefore, can be dated within a slightly narrower period of just over one

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23 The one remaining example is listed as having come from A50, room 8, a designation which I could not identify.
hundred and fifty years, from Shalmaneser III to Esarhaddon. Unfortunately, it is in a highly corroded state and the socket is completely missing. It has been classified as Type I based on the very slight presence of shoulders and the solid haft which no longer extends far enough to indicate the beginning of the socket. However, without a complete weapon it would be a mistake to base too much on the typology of this one example.

If the weapons in Fort Shalmaneser were simply being stored it would be interesting to compare them to weapons found elsewhere at Nimrud and therefore more probably in actual use at the time of the destruction. However, iron spearheads seldom get more than passing references in publications, and usually without any plates. Of the earlier examples, such as those Layard found in the palace of Ashurnasirpal II, almost nothing was preserved (Layard 1853b: 194).

The BSAI excavations managed to recover a few iron spearheads from the Northwest Palace at Nimrud in Room HH. Eight iron spears were found stacked in a corner, three of which were included in this study (fig. 3.2a, 3.3a, and 3.6d). All of these spearheads are of different types: Type IB, IIB, and V. The nature of the contents of this room suggest that it was a storeroom, and the presence of spearheads of various types found together here indicate that quite a variety of weapons could be available at any one time. In this case, the floor level sequence dates them to the destruction level in the late seventh century (see Introduction).

Another example, a Type IB spearhead (fig. 3.2c), was excavated from the so-called Southeast Palace, or Oates’ Assyrian Building (AB) which lies south of the Nabu Temple. It was found in Room AB 2, a stone-paved room off the side of the main audience chamber AB 3. These rooms were part of a typical throne room suite. This building was likely built by Shalmaneser III, though the latest phase probably dates to the very end of the Late Assyrian period (Oates and Oates 2001: 130-132). If this building was in use at the time of Nimrud’s
destruction in 612 B.C.E., then the spearhead is not likely to have been stored in a room that Oates and Oates defined as being used for ablutions (2001: 131). The fact that it was a solitary find also supports this. Furthermore, it was found just above the Assyrian floor level (Stronach 1958: 178) and so presumably was deposited there during the destruction and not a later occupation.

The last spearhead from the citadel is Fig. 3.2b, a Type IB spearhead that was found in the Town Wall houses in the northeastern section of the high mound. This area not only provided the only insight into non-palatial residences, but also provided an attempt at an archaeological sequence for levels dating from the Middle Assyrian to the Hellenistic periods (Oates and Oates 2001: 135-137). Sadly, it is not clear to which level the Type IB spearhead belongs.

Finally, the smallest of our ferrules (fig. 3.6a) was found in the outer town to the east of the acropolis wall, so no date can be proposed for it.

Thus, we are left somewhat unsatisfactorily with the general result that any and all of the spearheads could have been in use in the late seventh century. Their position in storerooms does not indicate whether they were old booty or whether they were contemporary weapons, and many were found in contexts that certainly suggest that they could have been in use at the time. No variations in findspots are apparent for weapons of different types, all weapons are found mixed together.

There were many other groups of iron weapons found scattered about the site of Nimrud, but most are published without illustrations or descriptions so they do not aid in this discussion. For example, a group of six spearheads were found in a grave in Room 11 of Adad-nerari III’s palace in the outer town (Oates and Oates 2001: 249); and within Fort Shalmaneser itself there were other iron spearheads found that did not appear to have been in storage. Many were found
along with daggers and arrowheads all along the line of the northern gateway and entrance hall where they were probably abandoned when the battle was over (ILN December 7 1957: 971). Presumably these weapons now reside in the museums of Iraq.

III.1.2 Artifacts from Nineveh

The site of Nineveh has also produced several spearheads. They have been found in the Halzi Gate (Stronach and Lumsden 1992: 232) and in the Mashki Gate (Madhloom 1968: 49-50). The former are certainly from the destruction of the city as they were among the finds in the central corridor of the gate discussed in Chapter 1 (Stronach and Lumsden 1992: 231-232). We cannot say with certainty whether these finds belong to the attackers or the defenders. The Mashki Gate finds are more problematic. Madhloom states that he found “copper spearheads” among the surface finds. It is unclear, however, if he means that these were finds from the surface of the eastern doorway and two towers they excavated, or whether they were simply surface finds around that area of the site (Madhloom 1968: 49). In either case the finding of ‘copper’ (or bronze?) spearheads is surprising. Unless perhaps we can go so far as to make the supposition that these might be part of a foundation deposit, bronze being more commonly used for ritual purposes in the later period.

III.1.3 Artifacts from Hasanlu

Contemporary late ninth century material can once again be found at the site of Hasanlu in northwestern Iran. An impressive 420 socketed spearheads were found in the destruction layer, by far the most common weapon. These weapons were mostly made of iron, though there are copper/bronze and some interesting bimetallic examples (Thornton and Pigott forthcoming). All are socketed like our Assyrian examples though, unlike those at Nimrud, some do have
holes in the socket ends, presumably to contain rivets to attach the spearhead to the shaft (Muscarella 1989a: 26; and Muscarella 1988: 56). The fact that all of the spearheads are socketed is described by Thornton and Pigott as “quite extraordinary, given the prevalence of [the tanged] form in bronze throughout the 2nd millennium BC and at Marlik. Whether this difference is chronological or reflects regional cultural patterns remains to be determined” (forthcoming). The prevalence of the common Assyrian form of spearhead, rather than the tanged form still used elsewhere in northern Iran, may suggest the strong connections between Hasanlu and Assyria in this period.

The large quantity of spearheads found at Hasanlu provides a wonderful opportunity to create a typology of weapons at this one site. The forthcoming publication shows many spearheads with interesting parallels to our much smaller corpus from Nimrud. The Hasanlu spearheads are divided into three main types: Type I, solid spearheads or pikes; Type II, flat blades; and Type III, possible spearbutts (Thornton and Pigott forthcoming). We shall take a quick look at each of these types in comparison to the Late Assyrian parallels.

It is among the Hasanlu Type II spearheads that we find the closest parallels to those from Nimrud, though at Hasanlu there are iron, bronze, and bimetallic examples. They are subdivided by cross-section (mid-ribbed, mid-ridged, or flat) and then by shoulder shape (angular versus rounded). The commonest form are the mid-ribbed spearheads with angular shoulders. This would conform with the Nimrud Type IVA of which there is only one example. It will be remembered that this is in fact the only spearhead of our corpus that has a clearly defined mid-rib rather than a mid-ridge. Of the 353 Type II iron spearheads from Hasanlu, 40% are mid-ribbed, 29% are mid-ridged, and 16% are flat-bladed. The 262 iron spearheads with distinguishable shoulders are 76% angular and 24% rounded (Thornton and Pigott forthcoming).
These two characteristics are far less common at Nimrud where the mid-ridge and rounded shoulders dominate.

The Hasanlu Type I and III weapons would both fall within the Type V examples from Nimrud. At Hasanlu, the Type I pikes are 10-46 cm in length, while the Type III spearbutts are less than 8 cm. Only the smallest example from Nimrud (fig. 3.6a) would parallel the Type III spearbutts from Hasanlu. However, Thornton and Pigott admit that some of their Type I examples could have served as spearheads, no doubt facing much the same dilemma as with the Nimrud examples in discerning the function of these artifacts. The Hasanlu Type I items have a wide variety of subtypes far beyond anything found at Nimrud.

A few of the more unique items at Hasanlu should also be briefly discussed for they will aid in the discussion of the Late Assyrian relief representations to follow. One is an iron spearhead (fig. 3.8) which has “a distinct, grooved ‘collar’ separating the flat blade from the socketed haft” (Thornton and Pigott forthcoming). I know of no other exact parallels for this item except in the Assyrian reliefs.

Another noteworthy item from Hasanlu are the ten bimetallic spearheads, which appear to be unique in the Near East.

These rare pieces consist of either an iron socket plus mid-ribs presumably forged onto a copper/bronze blade (all eight are Type IIA1), or an iron blade and socket with a cast-on copper/bronze collar and mid-ribs (both appear to be Type IIA2). The fact that seven of the eight Type IIA1 bimetallic spearheads were found together in a small side room (Room 8) of Burned Building II (considered to be a temple by the excavators), while one of the Type IIA2 spearheads…was found with the Gold Bowl in BBIW, Rm 6, suggests that they were valued votive items and not utilized as weapons per se. (Thornton and Pigott forthcoming)

A bronze blade attached to an iron socket and mid-rib is a structurally weak design which, along with the rarity of such weapons, suggests that they may have had a ceremonial function. The large and impractical size (one measures 57 cm) of many of the copper/bronze examples also
suggests that they were intended for display only (Muscarella 1989a: 25; Thornton and Pigott forthcoming).

This examination of the material from Hasanlu is useful because it shows that many of the typological differences and difficulties that exist in this large group of items from northwestern Iran are similar to those in our much smaller corpus from Nimrud. Despite some unique pieces, the bulk of the material from Hasanlu shows similarities to the material from Nimrud, even if minor preferences, mid-ribs over mid-ridges and shoulder shapes are not statistically similar, still both sites share these similar types of solutions to the problems of creating spearheads. Thornton and Pigott echo the belief that “spearheads appear to have become utilitarian and ‘standardized’ in style throughout the Near East in the 1st millennium BC” (forthcoming).

The Hasanlu material has parallels at the nearby site of Dinkha Tepe where similar socketed spearheads were excavated from burials dated to Iron II. Of sixty-eight graves excavated, only seven contained weapons which were made of both iron and bronze. Five spearheads were found in these graves, two of bronze and three of iron. Four are definitely socketed, and the fifth likely was too, though it is broken below the blade and so cannot be identified as socketed with certainty. The iron examples have strongly defined cylindrical mid-ribs, but the two bronze examples have raised ridges only. The bronze spearheads have rounded shoulders, whereas the iron ones are more angular in shape. Thus, the iron spearheads show a close affinity to those at Hasanlu. The three iron examples come from burials conspicuous by their lavish grave goods. The first, from a burial which is one of the richest in the cemetery, containing a large number of iron weapons, the only horse-bit found, and an incomplete horse skeleton, presumably the grave of a male warrior of some status. The other two iron spearheads were found in one of only six stone tombs, and one of only two to contain two adults, male and
female. In this case, however, the spearheads were the only weapons found (Muscarella 1974: 58-60, 66-67, 72).

The examples from Hasanlu and Dinkha Tepe show a few differences from our Assyrian examples. Bronze was still being used at both sites for some weapons. This may reflect the fact that these weapons are a century earlier and bronze is still being used occasionally for making weapons, or bronze may be in use for weapons with ritualistic purposes. The distinctive bimetallic Hasanlu example was probably for ceremonial purposes, and the Dinkha Tepe weapons found in graves may not necessarily have been for everyday use. Alternatively, it is possible that it is the iron weapons in the graves at Dinkha Tepe which should be considered special, and the bronze weapons which were more commonplace.

III.1.4 Artifacts from Syro-Palestine

The site of Lachish was destroyed by Sennacherib in 701 BCE, providing a date for the destruction layer and implicitly the weapons excavated there. Unfortunately, few spearheads were found. An iron spearhead was discovered in the burnt debris in the vicinity of the gate amidst a large quantity of arrowheads. It is in an incomplete condition, so it is impossible to tell if it was socketed or tanged. Another spearhead from a pit, however, was clearly socketed and attached to its shaft by rivets (Tufnell 1953: 386), a feature lacking in our Assyrian examples.

Lachish also produced two small bronze objects described by Tufnell as appearing “to be metal terminals for a shaft of 2-2 ½ cm in width” (1953: 386, pl. 58 no. 34, 37, pl. 41 no. 7, 8). Their dating to the Level III destruction was not definitive, but probable. Tufnell compared them to spearbutts found at Beth-Shan Level IV, but these do not provide close parallels (386). These spearbutts, if that is what they are, are quite unlike the possible Type V examples from Nimrud, both in shape and material.
The excavations of Hama also provide several examples of spearheads ranging in date from the mid-twelfth century down to the site’s destruction in 720 B.C.E. These weapons appear in both bronze and iron varieties but all are socketed. One of the more complete iron examples is 21.3 cm long with a flat blade and a beaten socket pierced near the edge with an oblong rivet hole (Riis and Buhl 1990: 99; fig. 50, no. 172). This spearhead was dated by the excavators to before 900, yet in material, size, and shape it would readily fit into our typology from Nimrud as a Type II or possibly a Type IV spearhead. The one interesting exception is the presence of a rivet hole in the socket.

The rivets are a feature strangely lacking from our Assyrian examples, especially as such rivets were common on swords, daggers, and shields in Assyria. The examples from Hasanlu and Lachish also had rivets, so this may indicate a difference in manufacturing technique that could separate the Assyrian spear makers from their contemporaries in neighbouring countries.

Hama also produced some iron artifacts which Riis and Buhl identify as possibly being fragmented spearhead sockets missing the blade. However, they alternatively suggest that these items could be spearbutts (1990: 99; fig. 50, nos. 174 and 175). Though fragmentary, they range from 6.4-9.5 cm in length and appear to have blunt ends, making them similar to Fig. 3.6a and 3.6b from Nimrud.
III.2 Spearheads: Pictorial and Textual Evidence

The Assyrian infantry can be divided into three categories: spearmen, archers and slingers. As discussed in the introduction, this work will focus upon spearmen only. Spearmen served as both the standard Assyrian heavy infantry acting as shock troops, as well as mobile light infantry. They appear in Late Assyrian art functioning in assaults on fortified cities and in open battle in many different terrains.

The early reliefs show spearmen wearing a heavy coat of mail, which would have hampered their mobility, a pointed helmet, short sword or dagger, and often a shield. The helmets, armour, and shields come in easily discernible varieties and will be discussed in following chapters, however the spear is a much more difficult item to classify. The scale of the reliefs makes evaluations of the style of any individual spearhead quite difficult. The minor variations which make up a typology must put a good deal of faith in the sculptor’s ability to accurately represent such tiny details as the curves upon the shoulders of a blade, or the depth and angle of a mid-rib. Still, typologies do exist, and we will examine Madhloom’s to see what patterns may be discernible.

Two basic types of spearheads appear in the reliefs: those with rounded shoulders (typically referred to as leaf-shaped) or angled shoulders (called triangular-shaped or rhomboid elsewhere). Both are generally reinforced with a mid-rib or show some sort of thickening down the centre of the blade. In Madhloom’s classifications, blades with rounded shoulders are found in the reigns of Ashurnasirpal II, Tiglath-pileser III, Sargon II, Sennacherib and Ashurbanipal, while those with angled shoulders appear in the reliefs of all of these same kings except Ashurbanipal (1970: 52-54). Clearly no division by reign can be seen to apply to either

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24 I will continue to use the more generic terms ‘rounded’ and ‘angled’ to describe the shape of the shoulders and thus of the blade. Note that Madhloom (1970) uses the terms ‘leaf-shaped’ and ‘rhombic’ (52).
basic type of spear. Madhloom’s other sub-groups are often based on minor variations in how the mid-rib is indicated.

One other distinction is the presence or absence of what appear to be ringed sockets, which are most characteristic during the reign of Sargon II, but are also in illustrations dating to Ashurnasirpal II and Ashurbanipal. In the Sargonid examples, the spears appear to have a cylindrical mid-rib, which is a continuation of these sockets. The reliefs of Sennacherib have neither the ringed socket nor the reinforcement of the blade, which caused Madhloom to question the absence of such technologically advanced features, a fact that he blames on sloppiness on the part of the artists (1970: 53). I have no problem accepting that artistic variations are to blame, but considering the significance that Madhloom generally places upon the reliefs, it seems that he uses this as a convenient excuse only when it suits his argument.

Illustrations of spears in the reliefs of both Sargon II and Sennacherib show a thickening at, or near, the base of the spear (Madhloom 1970: 53). This may be an attempt to balance spears which have increased in length and weight. However, as this thickening seems to be of the wooden shaft itself it would be impossible to prove archaeologically. More traceable in the archaeological record are the occasional ornamental ferrules, or spearbutts, with tassels attached that are most prevalent among the chariotry (Madhloom 1970: 52). It has been suggested by Reade that these tassels may be the sign of an officer (1972: 102).

The standard Assyrian spearman is identified by two terms in the text: sāb arīti, shield-bearer and nāš asmarē, spearman (Reade 1972: 104). The fact that these terms do not seem to be found together suggests that they may not be separate groups, but instead, either or both may apply equally to these soldiers. Though they may fight in groups of spearmen, they are most commonly represented together with archers. Under Shalmaneser III, spearmen first appear as a bodyguard, carrying maces; by the seventh century they provide the bulk of the king’s
bodyguard though without maces (Reade 1972: 104). In this context, the above spearmen are seen as representing Assyrian soldiers, but other spearmen are also represented.

Under Tiglath-pileser III a new type of spearman occurs that afterwards becomes quite common. These spearmen wear crested helmets and a short tunic with shoulder straps which cross over a roundel on the chest (pl. 9). This outfit is in contrast to the heavy mail coats and pointed helmets of the more typical Assyrian soldier. Consequently, these spearmen have been identified as representing auxiliary troops (Reade 1972: 105-106).

It has been suggested that the clothing of these auxiliary spearmen was a national costume with Urartian affinities. While their helmet crests suggest an Anatolian origin, the chest roundel with crossed straps has been compared to an Urartian bronze figurine found at Toprakkale (Barnett 1954: 7-8, pl. 2 no. 2c; Barnett and Faulkner 1962: xix; Postgate 2000: 103). Carchemish levies have also been suggested (Reade 1972: 106). When they first appear under Tiglath-pileser III, their helmets, while all crested, are of a variety of types, which could suggest that these auxiliaries were being drawn from a number of regions and that their uniform only gradually became standardized (Reade 1972: 105-106; Postgate 2000: 103).

Postgate suggests that these spearmen could be identified with a group called the Qurraeans in Assyrian inscriptions. The Qurraeans first appear under Tiglath-pileser III and are attested in texts up until at least Esarhaddon’s reign. Their geographical affiliation is unknown (Postgate 2000: 103). I will follow Postgate’s interpretation here as these auxiliaries form a very large and recognizable contingent within the Assyrian army as represented upon the reliefs. It is difficult to know how much these men were considered a separate ethnic group, or whether, by the seventh century at least, they had been completely assimilated, leaving us with merely a traditional form of military dress for a specific unit as depicted in the reliefs. Whichever may be the case, they are always depicted as spearmen whether attacking a city, hunting fugitives
through the marshes, or even standing guard at ceremonial events. Their arms and armour mark them as distinct, though even here we see some changes over time. For example, in the reign of Tiglath-pileser III they carry round shields, but by the time of Ashurbanipal they carry tower shields (pl. 10) almost exclusively (see Chapter 4).

By the seventh century, however, these troops appear at the front of the bodyguard, and even appear without helmets in Ashurbanipal’s lion hunt scenes. By this period their clothing, hair and beards have gradually come to look more Assyrian. For example, their pointed beards under Tiglath-pileser III subsequently become square, and their upturned toe boots in the eighth century are replaced by bare feet or Assyrian boots in the seventh century. This has led to the assumption that what we are witnessing is a process of assimilation (Reade 1972: 105-106; Postgate 2000: 104; Nadali 2005b: 230).²⁵

Two other groups of spearmen shown in a different dress are classed as “provincials” by Reade (1972: 106). The first are a group of Sennacherib’s bodyguards at Nineveh who have headbands, earflaps and a distinctive double kilt. Men of the same appearance but with pointed helmets can be seen on campaign in the Zagros (Layard 1853a: pl. 29). Barnett identified these individuals with the inhabitants of Lachish through comparison with the prisoners illustrated in those reliefs (Barnett 1958: 163-164; Layard 1853a: pl. 22). While this is possible, it is also true that Sargon II employed men from Syria and Palestine and these may be such mercenaries or their descendants (Reade 1972: 106).

The second group of so-called provincial spearmen appear in reliefs of Sennacherib in his Southwest Palace. They are men with caps covering the backs of their heads (Layard 1849a: pl. 70). These men are similar to Sargon II’s Phoenicians (Botta [1846-1850] 1972: pl. 31-34) and appear on campaign near the Mediterranean. Other slabs in the same room show Philistines

²⁵ Yet Reade also suggests that one such individual wearing the Assyrian pointed helmet “need not be taken seriously” (1972: 106). It is unclear why this alteration is presumed to be in error and yet the others are taken as proof of the assimilation of a foreign peoples.
and ships at sea (Layard 1849a: pl. 71; Reade 1972: 107). Clearly the reliefs show a wide range of possible units which would all fit under the general heading of spearmen. Perhaps these diverse groups might lead to an explanation of why there are such a variety of spearheads in any one period.

One other group shown with spears, distinguished not by their possible ethnic markers, but by their function, are cavalry. The ninth century cavalry spear in the reliefs of Ashurnasirpal II and Shalmaneser III appear to be fairly short. However, one must be cautious when trying to determine spear length based on representations on the Balawat Gates. Here the cavalry spears are incredibly short, well under a metre, no doubt due to the practical difficulties of illustrating them in the hands of mounted men within the narrow confines of the artist’s field. No one has suggested that the spears were really that short, and it is quite possible that they were a great deal longer. From the time of Sargon II onwards the spears are certainly much longer, Madhloom (1970: 52) estimates them at nine feet (c. 2.74 m). Cavalry are usually depicted operating in pairs, so one man could hold the reins for both. Ashurnasirpal II’s cavalry appear to use the bow exclusively, but under Shalmaneser III the second man often holds a spear or a shield. In the eighth century the cavalry are still paired and wearing quivers but using spears. Cavalry operated independently by the seventh century, carrying spears, bows or both (Reade 1972: 103).

The ivories found in Fort Shalmaneser provide a comparison to the images on the large palace reliefs. Spears are rarely represented in the subject matter of the ivories, but when they are, the detail is surprising. Several ivories with images of hunting scenes have spearheads whose types can be discerned. In Room SW37 is an ivory with an example of our rare Type IIA spearhead with rounded shoulders and a clear mid-rib. The spearhead protrudes from the back

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26 The modern cavalry lance as carried by the Canadian Governor General’s Horse Guard Cavalry Squadron is also nine feet.
of a chariot depicted on a panel of an item of furniture, probably a bed headboard or a chairback (Herrmann 1986 vol 1: 156-157; vol. 2: pl. 161 no. 659). The same room also holds an ivory with a Type I spearhead depicted in the hands of a male figure slaying a winged griffin (Herrmann 1986 vol. 2: pl. 19 no. 84). An angled shouldered spearhead with an elliptical cross-section (Type IVC) is used to hunt bulls from a chariot on a further piece of furniture in Room SW7 (Mallowan and Herrmann 1974: 68-69, fig. 13, pl. 3). As with the spearheads themselves, we see a wide variety of types found together. One further ivory appears to illustrate a regular soldier rather than a hunting scene. He holds his spear upright over his shoulder. The spearhead in this case is Type IVB (Safar 1987: 129, pl. 116).

The ivories at Nimrud illustrate a wide breadth of spearhead types. However, these ivories themselves come in a wide variety of styles. They, like the weapons, were found in storerooms containing material which may be Assyrian, but equally might have come from anywhere in the Assyrian empire. Interestingly, a different situation exists at Hasanlu. The ivories found there seem to depict exactly the same prevalence of the angled, mid-ribbed spearheads that were found on the site (Muscarella 1980: figs. 54, 55A, 55B). The uniformity of both spearheads and ivory depictions of them at Hasanlu is an interesting contrast to the variation seen between both the extant weapons and the ivory artwork at Nimrud, suggesting that both sets of ivories may reflect the reality of weapon types at each site.
III.3 Spearheads: Summary Observations

The first and clearest statement that can be made about the spearheads, both as they are represented in the reliefs and in the artifactual record, is that their typology cannot safely be used as a chronological marker. Too many variations existed in any one time and place both in the reliefs and the artifacts to suggest that these can be used as a dating tool. However, if the variation is intentional, the question remains what does it represent? If we take the round-shouldered versus angled-shouldered spearheads as the two clearest groupings in both art and artifact, can these be seen to reflect variations in use? Do they represent officer versus soldier, cavalry versus infantry, campaign versus parade? Or are these a marker of ethnicity amongst various units as has been suggested for armour and helmets (see Chapters 5 and 6)? If the variation occurred on the reliefs alone, artistic indifference could be blamed, but the material evidence supports this variety.

I would argue that it is the very variety that provides the answer. The surviving Assyrian spears all have certain points in common. All are made of iron. All are socketed, apparently with no further method of attachment to the shaft. Within these parameters the variation in size, shape, proportions and central strengthening was considerable. Various metalsmiths in various places at various times produced what they considered the appropriate spearhead with which to equip an Assyrian soldier. Constant movement of the army, repairs, and resupply would mean that any unit or storage depot might well have an assortment of spearheads which would not be especially uniform and yet all quite capable for their task. Artists, when commissioned to reflect the Assyrian spearmen, simply chose a form familiar or pleasing to them and applied it with more regular consistency than did the army. But even within any one king’s reign the variation among artisans was reflected in the reliefs.
Two problems exist with this interpretation. The first is found in the reliefs of Sargon II. These clearly show a tendency for a ringed socket to strengthen the attachment between spearhead and shaft (Madhloom 1970: 53). This would seem to be a technological innovation worthy of continuation and yet no surviving Assyrian spearhead bears this feature. Is this then entirely artistic imagination or is something else being represented here? Madhloom suggested that the cylindrical mid-rib on these spearheads was a continuation of the socket rings, implying that all was one piece of iron (Madhloom 1970: 52). If this was not in fact the case, and the rings were of a separate piece of metal, or even another material altogether, this could explain why none of these socket rings exist. It is also possible that, like the tassels represented on some spears, this was merely a decorative feature of some perishable material. A third possibility would be to suggest that this school of artists was trying to depict the join between the spearhead and the wooden shaft. In most reliefs, the two appear attached without even a single line to demarcate the join. These arguments would seem valid and quite sufficient to explain away the missing socket ring except for the unique example from Hasanlu which actually has a grooved collar (fig. 3.8). In this one case at least, an actual ring as shown on the Late Assyrian reliefs does exist, though it appears to simply be decorative, not a functional part of the socket.

As no spearheads were found at Khorsabad, it is impossible to conclude whether or not such a weapon was used in Assyria during the reign of Sargon II.

The second problem lies in the material evidence itself. Some variation in shape, finish, proportion, and size can be put down to the individual skill of the metalsmith and quite possibly the availability of iron. However, the spearheads from Nimrud alone vary in size from thirteen to thirty centimetres. This is taking individualism too far, and the variation must be explained in some other way. Differences this large would greatly affect the usefulness of the weapon. Another look will reveal that the weapons fall into two more general categories, those of 25-30
cm length, and those of 13-17 cm length. The larger spearheads are the types generally represented in the reliefs, and are mirrored by those found at Hasanlu, Dinkha Tepe, Lachish, and elsewhere. So what are the smaller items for?

As most of the Nimrud material was found in storerooms, and much of the military equipment which came to Fort Shalmaneser was booty or tribute, we may be looking at a foreign style of spearhead. However, as has been seen, weapons throughout the ancient Near East had reached a fairly standardized character by the Late Assyrian period, which may reflect the acknowledged superiority of Assyrian weapons and warfare. (Stronach 1958: 170). Furthermore, we cannot be sure that a good deal of what was found in these storerooms was not in fact made locally. Until Assyrian metal workshops have been found and excavated not enough is known about this technology at Nimrud.

An alternative possibility is that we are looking at two different types of weapons. The terms spearheads and lanceheads are used indiscriminately and often for the same objects. I have chosen to use the broad term spearhead for all of these types of points and assume from their use by heavy infantry, that the Assyrian spearman was using his weapon in the manner of a pike, intending to hold on to it and use it as a thrusting weapon. Relief depictions would appear to confirm this. But this does not preclude the alternative use of a “throwing spear”, something lighter and shorter which could be used as a missile weapon.

The presence of spears in the hands of cavalry suggests this very thing. Though there are some reliefs showing Assyrian horsemen ‘lancing’ their enemies, the lack of stirrups and, to judge from the reliefs, even saddles, makes the often suggested use of mounted spearmen serving as lancers seem highly improbable. Short throwing spears could however have provided another facet of mounted mobile missile warriors besides the often illustrated mounted archers. The smaller sized spearheads could then perhaps be seen as the tips of a lighter throwing variety
of spear.\textsuperscript{27} This is just one more of a number of possible avenues to pursue to try and seek a pattern in the wide variety of spearheads that exist. Without a larger quantity of weapons found in a reliable context all one can do is raise further possible questions.

\textsuperscript{27} It should be noted that a third size category may exist as well. Many sites identify an even smaller sized weapon usually referred to as a lancehead or javelin head which in size is frequently hard to distinguish from an arrowhead and so these were left out of this study. These items range from eight to twelve and a half centimetres in length and might themselves represent the ‘throwing spears’ suggested here. See for example: Hama (Riis and Buhl 1990), Carchemish (Woolley [1921] 1969), and Tell Fakhariyah (McEwan 1958).
Fig. 3.2: Type I spearheads (scale 1:2).
Fig. 3.3: Type II spearheads (scale 1:2).
Fig. 3.4: Type III spearheads (scale 1:1).
Fig. 3.5: Type IV spearheads (scale 1:2).
Fig. 3.6: Type V spearheads (scale a-c 1:1; d 1:2).
Fig. 3.7: Miscellanea (scale 1:1).
Fig. 3.8: Hasanlu grooved collar (© Courtesy of the Hasanlu Project).
Chapter IV: Shields

The third type of artifact which shall be studied is shields. Shields are an extra investment in the level of protection provided to a soldier, but they are also cumbersome. The size and weight of a shield can make combat and manoeuvrability more difficult, and the use of a shield effectively requires training. The size and weight of a shield are closely linked to its material of production, and this led to a great deal of experimentation in shield types. Shields are perhaps the most diversely represented piece of armament illustrated in the Late Assyrian reliefs. They are depicted in a wide variety of types, sizes and materials. Unfortunately, the existing artifactual record is not as complete, and those few artifacts which do remain cannot easily be identified in the pictorial record.

IV.1 Shields: Artifactual Evidence

While the latter part of this chapter will list the impressive number of shield types illustrated in the reliefs, the extant artifacts from Assyria proper are few. This is for several reasons. Firstly, many of the types illustrated appear to have been made of perishable materials such as wickerwork or leather. Secondly, as metal shields represent a large investment of resources, they would commonly have been melted down and reused if they were broken, captured as booty, or simply became obsolete. Consequently, the only items which remain are those which were sealed into a complete and sudden destruction layer. Generally, even in a violent destruction the returning inhabitants or conquering army sift through the remains to carry away any valuable materials. This small sample therefore is difficult to evaluate and may not reflect the true nature of the military equipment of the time. A final difficulty stems from an often interesting array of provenience for many of those examples that do exist in museums.
Early excavation and museum records often lead to confusion, with the same artifact being ascribed to two separate excavation sites.

**IV.1.1 Artifacts from Nimrud**

Layard (1853b) described finding heaps of arms and armour in his excavations at the palace of Ashurnasirpal II at Nimrud. Unfortunately, the objects were principally of iron and he was unable to preserve most of them. He did however describe the bronze shields he found, two of which at least he sent to England. They were found standing upright against one another and supported by a square piece of brickwork in Room AB. The shields were “of bronze, and circular, the rim bending inwards, and forming a deep groove round the edge. The handles [were] of iron, and fastened by six bosses or nails, the heads of which form an ornament on the outer face of the shield. The diameter of the largest and most perfect [was] 2 feet 6 inches” (194). This description fits some of the extant examples in the British Museum today (see for example fig. 4.2a and b) and we may presume that the two that Layard said he sent are amongst this group. At least six separate groups of fragments in the British Museum are thought to be from items that Layard sent from Nimrud (Curtis 1979).

The two best British Museum examples are Fig. 4.2a and 4.2b, though neither of these are as complete as Layard’s illustrated example (Layard 1853b: fig. page 193). John Curtis believes that Fig. 4.2a is the near complete example drawn by Layard (Curtis 1979). If so, its present condition can be explained by further damage which must have occurred in transport, or that Layard may have had the item drawn before an attempt was made to remove it from the ground. Layard’s description and illustration suggest that the edge of the shield bent sharply inward upon itself. The British Museum examples curve away towards the edge to form deep, wide troughs, but then curve back up and out for a neatly squared off rim. Figure 4.2a measures
78.7 cm in diameter (British Museum Collections Database, BM 22486), which is roughly equivalent to the 2 feet 6 inches suggested by Layard for this type of shield.

A more fragmentary example in the British Museum (fig. 4.3) also seems to be of the same type. This fragment is now only approximately 34.0 x 37.5 cm across. The rim no longer exists but the handle bosses still remain. All three of these British Museum examples still have the six bronze rivets as described by Layard to attach the shield’s handle. These rivets form two sets of three round projections in a triangular pattern on the face of the shield. The handle itself, where it survives (fig. 4.2b), is made of iron and is tubular, with flattened ends where it is attached. The result of this combination of metals is also evident on Fig. 4.3. The area around the bronze rivets on the inner face of the shield shows heavy corrosion, though no trace of the iron handle exists. A single, centrally placed handle is unlike the ancient Greek approach of putting the arm through a centre strap and holding another strap at the rim which provides a much stronger grip and better control of the shield. A single handle puts great strain upon the wrist if the shield is struck with much force.

Layard found these large bronze shields in a room which appears to have been used as storage. The shields were set neatly one against another standing upright. As the room contained many other metal artifacts: cauldrons, other weapons, etc., these items could have been stored simply for their value as metal. They could represent booty or tribute brought into the empire and not in fact represent Assyrian items at all. If they were brought in as booty it is also possible that, like the items taken from the temple of Musasir in Urartu (see discussion of Urartian shields below), they were not practical items of warfare but ceremonial weapons. The fact that they were stored with other weapons helps to offset this suspicion somewhat. Many of the other items were clearly utilitarian.
Another shield fragment (fig. 4.4) in the British Museum would seem to indicate a different type of shield to the large ones above. It measures 34 cm in diameter at its widest point which would seem to be almost its full width. However, a large collection of other fragments have been given the same catalogue number and are said to come from this same shield. But these attributions are dubious. If the diameter is indeed little more than 34 cm, then there are simply too great a quantity of other fragments to be accounted for. Furthermore, the odd shapes and angles of many of these pieces do not seem to fit the shield. It is worth noting, that two of these extraneous pieces have small perforations along the edge suggesting that they were perhaps sewn to some sort of backing material. If they are part of the shield, then they represent a feature not generally seen; though House D at Carchemish contained a large round shield that was made from extremely thin bronze backed by leather (Woolley [1921] 1969: 128). However, such perforations are more reminiscent of those found on helmets to attach them to a leather lining (see Chapter 6). Another odd feature of this shield is that it lacks any suggestion of having had a handle despite a substantial portion of its middle section remaining intact.

**IV.1.2 Artifacts from Urartu**

The largest group of existing shields are those from Urartu. The excavations at both Toprakkale and Karmir Blur have uncovered a great many large bronze shields, which are close parallels to those from Nimrud.

Excavations by Rassam, Clayton and Raynolds for the British Museum at Toprakkale in the 1880s produced several bronze shields. Unfortunately, the only excavation information that exists for this material is a single letter from Clayton to Layard dated May 11th, 1880. This letter illustrates two bronze shields found during the course of excavations (Barnett 1950: 9, 12). These two shields, along with many other either complete or fragmentary examples, have been
discussed in detail by Barnett (1950, 1972). While we can be fairly certain that this material all came from Toprakkale it should be noted that the records of the British Museum from this period leave something to be desired and even Barnett himself in 1950 mistakenly identified one shield as having come from Toprakkale which was in fact from Nimrud.  

These shields from Toprakkale share many common characteristics. In size they range from 77 to 90 cm, they bear inscriptions around the rim, and are decorated with chased and embossed lions and/or bulls. The inscriptions are generally dedications from various kings to the god Haldi. Only one (fig. 4.5a) is definitely plain, lacking any animal figures, but it too bears an inscription. Most of these shields are to be dated to the reign of Rusa III in the late seventh century B.C.E.

Clayton’s illustration clearly shows a handle (fig. 4.5b). It is of the same type as the British Museum Nimrud examples with sets of three rivets. However, the handle is set off centre instead of in the middle of the back of the shield, and perpendicular to the rim. It cannot entirely be ruled out that a second handle might have existed on the opposite (damaged) side, though this appears unlikely. The positioning and direction of the handle make it difficult to see how someone using the shield would hold it securely.

A very fragmentary shield from Toprakkale shows a smaller ribbon type handle. Remnants of two of these handles remain on the shield fragments with a third possibly also from the same shield. This third handle (fig. 4.5c) is complete at 24 cm long (Barnett 1972: 164) and is quite similar to the tubular variety of the Nimrud shields. On stylistic grounds this shield has been dated to around 600 B.C.E., later than our Assyrian examples. If it is also possible that, as Barnett suggests, the rim of a shield inscribed with the name of Rusa III, son of Erimena is also part of this same shield then that would help to confirm this late dating (Barnett 1972: 164).

28 Barnett 1950: 14; and see correction, Barnett 1972: 168 in reference to Fig. 4.2a.
The Karmir Blur examples are very similar to those from Toprakkale. Again they share the same three basic characteristics: being large in size (70-100 cm), decorated with lions and bulls, and inscribed with dedications to the god Haldi from the eighth century kings Argishti I, Sarduri II, and Rusa I. These eighth century dates make these shields contemporary with the reliefs of Tiglath-pileser III and Sargon II unlike the very late Toprakkale examples.

The Karmir Blur shields were found in a great many rooms apparently serving a great many purposes. Near the doorway to Room 3 a large bronze shield about one metre across with a conical centre was found where it had apparently fallen from the wall (Barnett and Watson 1952: 136). Two other shields were found in Room A also against the walls (Barnett 1959b: 12), where perhaps they had originally been attached. However, in many cases the shields were found piled in heaps of other items, either other metal objects such as weapons, armour and horse gear, or with unrelated material such as corn, barley and chick-peas.

In Storeroom 28, two jars (no. 46 and 50) appeared to have been covered with shields which were serving as their lids. Both of these shields had been broken by the fallen roof. In size and shape these two shields were quite different. The first was a great shield, one metre across, inscribed with the name of Argishti I. The second one, found just south of jar number 50, was only 70 cm in diameter and had a curved outline rather than the conical shape of Argishti’s. The border was 11 cm wide and bore a single-line inscription of Rusa I. This shield still retained two iron handles 20 cm across and attached with bronze nails (Barnett 1959b: 7). It is interesting to note that here, as with the Nimrud examples, we have the mixing of iron handles with a bronze shield and nails.

Karmir Blur also provides us with a new type of shield, or the remains of one. It has been suggested by the excavator that two groups of inscribed bronze omphaloi found in a dwelling near the west gate and in jar 55 in Storeroom 28 were intended as shield bosses for
wicker shields. The three found near the west gate are said to have been found with the remains of three wicker shields, thereby confirming their purpose (Barnett and Watson 1952: 135). The six found in the storage jar (fig. 4.6) were decorated with bull’s heads, and in one case, buds. Five of the six were also inscribed with the names of either Argishti I or his son Sarduri II (Barnett 1959b: 8). The size of these omphaloi (approximately 15 cm in both diameter and height) suggest that they were the central boss on a significantly larger size shield.

IV.1.3 Artifacts from Hasanlu

The excavations at Hasanlu produced three bronze shields. These are much smaller in size than the Nimrud examples from the British Museum, having a diameter of 33, 37, and 43 cm each. Ivories from Hasanlu have representations of warriors armed with spears and carrying small round shields which would compare in size to the two smaller of the examples found (Muscarella 1989a: 26-28; see Muscarella 1980: fig. 54, 58, 64, 178). These small round shields would also compare nicely with the estimated measurements for the ninth century round shields in the Assyrian reliefs as carried by both Assyrians and Urartians. Considering that these shields date to the very end of the ninth century at the latest, they provide similar contemporary examples.
IV.2 Shields: Pictorial Evidence

In the Late Assyrian reliefs shields show the greatest variation of all articles of military equipment. These variations are apparent both through a range of time periods and, even more importantly, through a wide range of practical usage. A range of materials also appears, not only metal, but also perishable materials such as wicker, wood, or perhaps leather, based on the patterns with which they are decorated, and the obvious necessity of minimizing their weight.

It is also interesting that for an item of such apparent importance, and certainly of constant experimentation, the shields are not more commonly represented in the reliefs. The reasons for this may be many, but certainly there are great artistic difficulties with portraying a large object intended specifically to hide the individual from view into a narrative scene. Consequently, we find shields hidden behind the backs of soldiers and frequently drawn in profile to fill less space in the artist’s field. This makes it difficult to study the details of any individual shield. An even greater danger, and one which as modern viewers we cannot truly judge, is the degree to which the shields are being represented by artistic conventions, short forms for objects that were already quite familiar to contemporary viewers.

A final possibility for the less than realistic numbers of shields may be psychological. A shield suggests the need for defense. The might that was Assyria had little need to defend itself against the weaker people which surrounded it. On a purely propagandistic level, shields suggest weakness and may have been minimized whether intentionally or unintentionally for this reason. To support this hypothesis it is of note that the group most commonly seen holding shields are the Qurraean auxiliaries (see Chapter 3). They are often depicted in scenes alongside their Assyrian counterparts who are not carrying shields. It seems highly unlikely that the Assyrian army would outfit auxiliaries with pieces of protective equipment that they denied to their own troops, though admittedly the Assyrians are wearing superior armour.
Following Madhloom’s general typology, shields in Assyrian reliefs fall into four main categories: round shields, tower shields, rectangular shields, and palisade shields (Madhloom 1970: 54-58). The round shields come in the widest variety of types and will be discussed first. They are also the only type for which there are clear archaeological parallels.

**IV.2.1 Round shields**

Round shields are the most common category found on the Late Assyrian reliefs. They come in a great variety of types, from flat round ones that had their beginnings back in the Middle Assyrian period, or even earlier, to huge convex shields thought to be of metal. These shields pose many difficulties in deciding what in the illustrations should be considered decorative and what is structural. When do lines drawn in two dimensions equal a three dimensional reality? Fortunately, some of these round shields are shown at times both in profile and frontally, which can aid in identification.

Flat round shields are common in all periods, though they come in a range of sizes and possible materials. Quite small plain round shields were apparently used in the Middle Assyrian period, where they appear on the White Obelisk of Ashurnasirpal I carried by Assyrian foot soldiers. In the reliefs of Ashurnasirpal II these shields had grown slightly in size and appear to be used by both foot soldiers and chariotry (Madhloom 1970: 54). In these early representations they are unadorned, so it is impossible to guess what material might be illustrated. In size, they appear to be no more than 40-50 cm in diameter and are held by a handle placed directly in the centre (pl. 11). They are illustrated with the inner face towards the viewer so the handle is visible, hence we do not get a view of the outer surface. This makes it difficult to comment on any outer decoration, pattern of the rim, or presence or absence of bosses. Some small shields

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29 Note that Madhloom uses the term siege shields for the fourth category but I prefer the term palisade shield as many types of shields are used in siege contexts.
drawn in profile which are considered to be of the same type have led to the assumption that these shields are flat, but there is no certainty that these two images represent the same shield, or even that the one drawn in profile is round. However, without any evidence to the contrary, this standard assumption will be followed here.

By the time of Tiglath-pileser III this flat round shield was not only used by the Assyrians, but also by the foreign units, particularly those illustrated wearing the double baldric with a central disc identified as Qurraean auxiliaries by Postgate (2000: 103; see discussion Chapter 3). The shields possibly had also increased slightly in size (50-60 cm), though it is difficult to make such judgments based on their proportions on the reliefs. These plain round shields continue on into the seventh century and we are fortunate to get a view of the outer surface of one of them in a relief of Sennacherib. Here, during the siege of Lachish, we see a soldier apparently carrying two shields, one in each hand (pl. 12). The one on the far side of his body is held in his left hand with the interior showing, while the one in his right hand, has the exterior surface to the viewer. It is in fact plain, without any indication of decoration, separate rim, or bosses. This may serve to justify the belief that the other small round shields are also plain though clearly this is a precarious statement to make based on one example. Interestingly, there is also no indication of the handle rivets which are such a clear feature of the only round shields which exist in the artifactual record, though they are much larger.

Another variation of similar size shows concentric circles presumably for reinforcement. In Sargon II’s reign the spaces between the ridges were sometimes decorated with geometric and floral designs. At this time they were also used side by side with the plain variant. The reinforced shield, if so we are to interpret the concentric ridges, continued into the reigns of Sennacherib and Ashurbanipal (Madhloom 1970: 54-55).
Larger, lighter round shields apparently made of wickerwork appear in the later period from Sargon II onwards (pl. 13). This is following the assumption that the varying patterns of design shown on such shields are intended to represent different plaiting techniques in wicker. Their greater size (c. 60-100 cm) provided a wider area of protection, while the decreased weight increased mobility. A great diversity of patterning is illustrated including brickwork, parallel lines, and horizontal and vertical sections filled in with other patterns. The rims of these shields often appear to be different and may be of metal. The same may be true for plain central circles that could represent omphaloi placed on otherwise wicker shields (Madhloom 1970: 55). As mentioned above, the site of Karmir Blur produced a number of bronze omphaloi of conical shape, three of which were described by the excavators as having been attached to the remains of wicker shields (Barnett 1959b: 8, pl. 2a).

Another type of round shield has a ridged rim and a central boss. Many of these types are visible in front view on the Bronze Gates of Shalmaneser III from Balawat. The Assyrian soldiers appear to carry shields with a raised edge and a small boss in the centre. A smaller variation with larger boss is also visible on the Balawat gates carried by the Urartians, who are identified by their crested helmets (pl. 14). They are also used by Urartian horsemen depicted on a bronze helmet and quiver excavated at Karmir Blur and inscribed with the name of the eighth century Urartian king Sarduri II (Madhloom 1970: 55; Barnett and Watson 1952: 139, fig. 15, pl. 32). This is important as it indicates that the Urartians themselves considered this as a standard shield design. It is generally presumed that these small shields on both sides of the conflict are of metal, and their size certainly makes this possible both in terms of weight and in cost of materials. However, the Urartian ones appear to be less than a foot across, with the Assyrian ones not much bigger, which brings into question their effectiveness. A rare example on the reliefs of Ashurnasirpal II shows one of these small round shields in profile (Madhloom
1970: 55). However, here we see a large convex omphalos much more similar to the shields of the Urartians than those of the Assyrians on the Balawat gates. Another example of this type of shield, though apparently somewhat larger, is seen in a stele from Tell Halaf (pl. 15).

Ashurnasirpal II’s cavalry is also shown bearing round shields which appear to be a little larger in size than those on the Balawat Gates. These are carried by pairs of mounted archers, but as they are illustrated behind the bodies of the archers it is difficult to be sure of their size and shape. In combat, one of the horsemen is firing his bow while the other holds the reins of both horses. The curve of the shield can be seen behind the first horseman (Yadin 1963: 297, pl. page. 384-385). It is unclear whether he is wearing it across his back as is sometimes described, or whether the other horseman is holding it. Obviously the latter makes more sense in a combat situation both for defense, and because it is unlikely that the shield could be carried on the archer’s back without interfering with his quiver.

Another round shield apparently made of metal is illustrated with a convex body and an everted rim. An early version of this can be seen in profile on the White Obelisk where it is depicted with a central boss. The soldiers of Ashurnasirpal II, Shalmaneser III, and Tiglath-pilesar III carry plain types without bosses. Sometimes these convex shields are studded on their outer faces with spikes arranged in a circle (Madhloom 1970: 55-56). Representations on the Balawat Gates suggest that these could be used offensively (pl.. 14) as well as defensively (see King 1915: pl. 56; or Barnett 1959a: pl. 147). This spiked outer face could also sometimes have a central boss in the shape of a lion’s head. The convex shield with lion-headed central boss is seen frequently in the reigns of Ashurnasirpal II and Shalmaneser III either slung on the back of chariots or borne by the chariot shield-bearer (pl. 16). This type also appears to have survived in Urartu down into the eighth century where they are depicted in reliefs of Sargon II being taken from the temple of Musasir (Madhloom 1970: 56). Finally, ivories found at Nimrud
show this exact same small everted rim shield with a spiked outer face, with or without the lion boss (see Mallowan 1970: pl. 5 no. 6; pl. 18 no. 62).

On Ashurnasirpal II’s Balawat gates the small everted rim shield is the most common type of shield represented (see Curtis and Tallis 2008: fig. 12, 28, 32, 36, 76), in contrast to the small round shield common in his palace reliefs. This could be due to the fact that it is shown in profile to most clearly illustrate its shape, hence, takes up less space visually than the plain round shield which is shown flat.

The last type of round shields are large conical convex shields, also apparently made of metal, which make their first appearance in the reliefs of Sennacherib and continue into Ashurbanipal’s reliefs. These shields appear to be as great as 140 cm in diameter. While this would certainly give better protection to the body, they would be incredibly heavy if these shields are indeed made of metal. The conical shape also served to better protect the sides of the body, as well as deflect arrows. Such shields could be carried by being slung on the back as depicted by soldiers in Sennacherib’s reliefs (Madhloom 1970: 56). That these shields are truly made of metal is possible because they are usually depicted with palace guards standing in scenes of lion and bull hunts with their shields resting on the ground (pl. 17). These could then serve a ceremonial function showing the might of Assyria and the wealth and power of its ruler which would connect with the propaganda of the lion hunt as a whole. The whole scene could be seen as a somewhat fictitious excuse for showing the glory and prowess of Assyria’s monarch. If this is the case, then perhaps the times they are shown in military reliefs are a reflection of the artist’s ignorance of their solely ceremonial purpose. Perhaps he was simply drawing what he had seen at court. Though the field examples appear to be marginally smaller, they are otherwise identical in appearance and it is impossible that they could be metal because,
in at least one of these examples, the man wearing it is swimming (Barnett, Bleibtreu, and Turner 1998: pl. 192)!

### IV.2.2 Tower shields

The second category of Assyrian shields are Madhloom’s so-called tower shields. They were rounded on top with a flat base and had a curved body to better protect the soldier. Like the large round convex shields, their curved shape meant that they could easily be carried across the back. Their size is fairly consistent, generally covering the soldier from knee to forehead (about 115 cm). The tower shield first appeared in the reliefs of Sennacherib and were very common in the time of Ashurbanipal. In both reigns, they appear in the hands of spearmen.

The reliefs show tower shields with a variety of patterns illustrated upon them. Those with either fine straight lines or a woven pattern are generally considered to represent shields made out of wicker or perhaps wood (pl. 10, 18-left side). Others however, are plain with a fine line incised around the edge and a circular one in the middle (pl. 18-right side). These examples have often been described as being of metal, probably bronze, with designs etched upon them. Both the edge decoration and the central pattern are often further decorated with rosettes (Madhloom 1970: 57). However, the mobility that these troops display would be quite difficult if these large shields were of metal. This has led others to postulate that they are in fact covered in leather (Yadin 1963: 295, 442), perhaps with an etched design, or possibly metal edging and bosses. Both of these two types can appear side by side in the same relief, as in Ashurbanipal’s Arab wars depicted in Room L of his palace at Nineveh. Here, in a single scene, men are shown carrying tower shields illustrated with fine straight lines, woven patterns, edged with bosses, and even plain.

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30 Madhloom (1970: 57) points out that earlier examples of such shields can be found in Mycenae and Egypt.
I support the supposition that these shields cannot possibly be of solid metal. The weight of such a shield would be enormous and the reliefs do not suggest this. Not only do we have the clear mobility of these troops, especially in difficult terrain such as the Babylonian campaigns in the marshes, but we also often see the shield held out at arm’s length in a manner that would be impossible with a solid metal shield. As we shall see in the next two shield types, the heavier shields are borne by shield-bearers, whereas tower shields were always carried by the individual soldier as part of his own personal equipment. Only in the case of the guardsmen at the lion hunt of Ashurbanipal in Room C of his palace could we imagine that a shield of solid metal could be possible (pl. 17, 20). It is interesting that these are the only tower shields that show no markings whatsoever on the fronts of the shields, and that they are full height going right down to the floor where their weight could be rested on the ground. It is possible that in these plain shields we are seeing a rare example of tower shields in metal. Another example of one of these large size tower shields is shown in the hands of a guardsman in a lower register below the sack of the city of Hamanu in a relief from Nineveh (pl. 21). However, this one is clearly illustrated as being of wicker. It is not clear if the soldier is guarding prisoners or standing guard duty at the Assyrian camp.

It is also interesting to note that tower shields often end up in the hands of Postgate’s Qurraeans in these later periods, though certainly not exclusively, as many soldiers dressed in the armour and pointed helmet of the Assyrian regular are also seen carrying them. It appears in the reliefs that the auxiliaries typically carried the wicker examples, leaving the leather (or potentially metal) shields to the Assyrian troops (pl. 19). But here we should remember the lesson learned on the Column of Trajan, for this may simply be an artistic convenience to further differentiate the two groups visually.
IV.2.3 Rectangular shields

Wickerwork rectangular shields appear alongside many of the other types in the ninth and eighth century reliefs. In general, they appear to be almost a metre in height covering the soldier from the top of his helmet to his hip (pl. 22). Madhloom suggests that Ashurnasirpal II’s reliefs show some of smaller size (1970: 57). However, it is far more likely that the smaller examples are drawn so for artistic convenience. For example, a large pair of standing archers is drawn above an illustration of a siege engine which made it impossible to illustrate their rectangular shield at full size (Barnett 1975: pl. 28). In another example, the small rectangular shield is in the hands of a shield-bearer standing atop a siege engine, thus limiting the space available for the artist (pl. 23).

Rectangular shields are shown both in side views and frontally, providing a fairly clear picture of their shape and construction. They are slightly curved in profile and have a single handle placed in the centre of the shield. The pattern illustrated on the shields suggests that they are made of wicker arranged in layers and tied together in horizontal bands in a zigzag pattern (pl. 22, 23). Madhloom suggested that the bands were made of metal (1970: 57), but their zigzag patterning seems to make this unlikely.

Rectangular shields shown on the Balawat Gates of Shalmaneser III are similar in size and shape, but the smaller scale of the illustration provides less detail as to the material of the shields. Some of them appear plain, with no pattern upon them, while others clearly have a series of fine vertical lines. The lines may be intended to suggest wickerwork where the size of the image did not allow for the detailed patterning shown in Ashurnasirpal II’s reliefs. Even here however, one example does seem to be drawn with a pattern that would echo the same wickerwork construction technique (King 1915: pl. 11). The newly published images of Ashurnasirpal II’s gates from Balawat nicely parallel those from Shalmaneser III’s (Curtis and
Once more the rectangular shields are shown somewhat smaller to fit into the confined space of the bronze bands, and appear to be plain. This shows that what has previously been observed is not a change in shield types from the time of Ashurnasirpal II to Shalmaneser III, but a change in artistic representation based on a difference in media. There are no examples of rectangular shields in the sculptures of Tiglath-pileser III, though they do appear occasionally under Sargon II at Khorsabad.

In all cases, the rectangular shields are used by shield-bearers partnered with an archer in a siege scene. The shield-bearer holds the shield in his left hand, while he holds either a spear or a very short sword drawn in his right.

**IV.2.4 Palisade shields**

The final category of Assyrian shields are those used during sieges. In the palace reliefs of Ashurnasirpal II, Assyrian archers are shown wearing long heavy coats of mail and accompanied by a shield-bearer with a small round shield to protect their face (pl. 23). This arrangement was both cumbersome and not very effective in terms of manpower (Yadin 1963: 295, pl. pages 388, 460). The Balawat Gates of Shalmaneser III show the first attempts at the innovation of high palisade shields which provided a wall to protect the archers (pl. 24). The patterning on the shields suggest that they were made of wicker. Interestingly, this would appear to truly be an innovation of Shalmaneser III, for the gates of Ashurnasirpal II show no type of defense at all for Assyrian archers in siege scenes. Not only do they have no shield-bearers, they are not even wearing armour!

Beginning with Tiglath-pileser III, the palisade shields have the added improvement of a curved or angled top to provide some cover from return missile fire. Presumably their large size made them too heavy to hold, especially for archers who needed both hands elsewhere, so the
shields are illustrated free-standing with a shield-bearer grasping their handle. The shield-bearer holds either a sword in his free hand or arrows for the archer (pl. 6). There are no full frontal views of these palisade shields, but as two or even four archers shelter behind them, they must be fairly wide (Madhloom 1970: 58). These new shields meant that archers involved in attacking a city could now wear only short shirts of mail or dispense with armour altogether (Yadin 1963: 296). This transition appears gradually, as the archers on Shalmaneser III’s bronze gates still wear ankle-length coats of mail.

Though the palisade shields are surely meant to replace the shield-bearer with the small round shields seen in the early ninth century reliefs, these figures still can occur as a third man in conjunction with the archer and his palisade shield-bearer as late as the reigns of Tiglath-pileser III (see Barnett and Faulkner 1962: pl. 31-32) and Sargon II (see Botta [1846-1850] 1972: pl. 99). These secondary shield-bearers appear to carry the same small round shields as in the earlier reliefs and still hold them up at head height apparently to protect the archer’s face (Barnett and Falkner 1962: pl. 31). Having a ratio of two shield-bearers to one archer seems to be an illogical use of manpower especially in response to the supposedly better coverage created by the palisade shield. Here we are likely seeing the artist’s combination of an older familiar imagery with the newer technology.

Some variation in the types of palisade shields used can be seen from one reign to the next. The Bronze Gates of Shalmaneser III show a plain rectangular type which disappears in the reign of Tiglath-pileser III but reappears under Sargon II. The characteristic shape of palisade shields in the reliefs of Tiglath-pileser III is the angular roof-like projection or, in a few cases, a curved top which tapers to a point. With Sargon II we see a mix of the earlier rectangular type of the ninth century and the curved top of Tiglath-pileser III, but by Sennacherib and Ashurbanipal only the latter is still in use (Madhloom 1970: 58).
The palisade shields are an excellent example of the care that must be exercised when translating artistic representations into ‘fact’. Many oddities occur in the illustrations that cannot be easily explained except to presume that the artist was unfamiliar with the use of such shields or uneasy with the challenges of representing them artistically. Among the reliefs found from Tiglath-pileser III’s Central Palace was one that bears a good example of the angle-topped palisade shield in use with an archer. The shield-bearer’s hand is strangely placed beside the palisade shield clasping onto an imaginary handle that is not even drawn. This serves to present the clearest possible image of the shield-bearer’s arm and hand which was no doubt the artist’s intention, but it does not provide a clear illustration of the use of a palisade shield.

Another oddity that is a reminder that a process of artistic selection is constantly at work, concerns the height of these palisade shields as sometimes depicted. The siege of Lachish, illustrated in Sennacherib’s Southwest Palace at Nineveh, has a scene showing many pairs of archers with curved-top palisade shields mounting the siege ramps before the city (see Barnett 1975: pl. 78). Palisade shields are meant to be the full height of a man to protect the archer from enemy missile fire but, in the Lachish reliefs, they are drawn proportionally to the people. The shields are just tall enough to cover the archers from helmet to ground regardless of whether they are standing, in a half crouch, or kneeling.

Shalmaneser III’s Balawat Gates present yet further problems in their depictions of the early rectangular type of palisade shield. As these are the first representations we have, we are faced with the question of whether or not the variations seen here stem from early trial and use of a new piece of equipment, or the artist’s unfamiliarity with a contemporary innovation. Most noticeable is the apparent lack of a handle (King 1915: pl. 43, 51, 73). The shield-bearer instead appears to grasp the wicker in two places and hold onto the shield itself (pl. 25). This two-handed method prevents his use of a short sword or the handling of arrows. Are we to assume
that these early palisade shields really did not yet possess handles? In yet another example from the Balawat Gates, the archers actually appear to be arrayed in front of the palisade and it is unclear whom it is protecting (King 1915: pl. 43). Finally, Madhloom’s suggestion that as many as four men might take shelter behind a palisade shield is based on an image from the Balawat gates where four or possibly five men take shelter (King 1915: pl. 73; Madhloom 1970: pl. 50). This image is unusual for the action it depicts, rather than the more typical static Assyrian pose. The men consist of a shield-bearer, two archers, and a fourth and fifth man whose roles are unclear though both possibly carry bows as well.

On a purely tactical matter, it is interesting to note that the rectangular wicker shields discussed above had a similar purpose to the palisade shields. They provided protection for an archer during a siege by supplying him with a shield-bearer. However, in that case we can surmise from the spear often held in the shield-bearer’s right hand that the smaller shield was lightweight enough that he could double as a regular infantry spearman. The mobility provided by the smaller shield made this a more versatile combination, and the second man could be used in an offensive capacity. The switch to the larger palisade shields robbed the shield-bearer of his offensive abilities. The greater weight, even if the shields were of wicker, now meant that he was shown only with a short sword or even simply helping his archer by supplying arrows. This would seem to be particularly true in the case of Shalmaneser III’s two-handed examples.

Unlike the situation with the finer distinctions that differentiate swords and daggers or spearheads, shield types are clearly identifiable in the reliefs. Even in the case of the small representations such as those on the Balawat Gates, there is easily enough detail to at least determine which of our four basic categories of shields is being represented. Therefore
it is possible to present a table showing the different shield types and which reigns they are represented in on the reliefs.

<table>
<thead>
<tr>
<th>Shield Type</th>
<th>Ashurnasirpal II (883-859)</th>
<th>Shalmaneser III (858-824)</th>
<th>Tiglath-pileser III (745-727)</th>
<th>Sargon II (721-705)</th>
<th>Sennacherib (704-681)</th>
<th>Ashurbanipal (669-631)</th>
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Fig. 4.1: Shield type distribution by king’s reign.

The above table (fig. 4.1) shows the great variety of shields at use during any single reign as illustrated in the Late Assyrian reliefs, as well as the range of time over which any one shield type was used. Add to this the great assortment of sub-groups in any one category, as well as minor variations, and one can see the risks in trying to use these items as a marker to suggest dates. Certain patterns do appear and general comments can definitely be made about the progression from early to late types of shields as seen in the reliefs. The great variety of small round shields: flat, ridged rim with bosses, and convex everted rims, all measuring between 40-60 cm, used during the ninth and eighth centuries were simplified from the time of Sargon II onwards to plain round shields mixed with the larger wicker variety. For formal public occasions (such as the lion hunts) in the seventh century these were supplemented with very large shields. Tower shields were also used widely in the seventh century, almost exclusively if we were to judge by the battle scenes of Ashurbanipal alone.
The rectangular shield, presumably of wicker, was an early attempt to find a more suitably large, but still light, form of protection for archers during siege warfare. These early attempts grew into the rectangular palisade shields that we see under Shalmaneser III, only to be replaced by Tiglath-pileser III’s innovations to further protect the archer by the addition of the angled top, which in turn developed into the curved type seen in the seventh century.

However, many throwbacks do occur. Sargon II’s reign saw a good deal of reuse of shield types apparently missing at the time of Tiglath-pileser III. We cannot be sure if this was experimentation upon his part, or whether these types are in fact just missing from the pictorial record of Tiglath-pileser III but were in fact still in use. It would seem odd that Sargon II would look back one hundred years to resurrect old types of equipment, but rulers often look to the past to suggest a continuity with a golden age.

Other missing elements, such as the lack of flat round shields on the reliefs of Shalmaneser III are odd, especially as one or another form of these shields are used in all other reigns. Sadly, for Shalmaneser III’s time we only have the Balawat Gates to represent imperial reliefs to parallel the palace reliefs of other kings. It is quite possible that the differing material and scale of this art affected choices made by the artist.

This much the reliefs can tell us if we treat them as an historical account, which is of course a risky proposition. We must also take a quick look at the textual sources which can serve to confirm some of our suppositions.
IV.3 Shields: Textual Evidence

Textual materials can provide a little more information about the use of shields. The Assyrian word for shield was arītu which could be used both to describe the shield itself or the shield-bearer. References to this term supply us with a few insights into their provisioning, the materials of shield-making, and their possible unconventional uses.

While the term shield-bearer (sāb arīti) can be used to describe the standard Assyrian infantryman with his spear as discussed in Chapter 3, there are also references to men whose specific task seems to have been as shield-bearers for archers. Shield-bearers are mentioned in texts parallel to archers and usually in similar numbers. For example: “I incorporated 30 500 bowmen and 30 500 shield-carriers (from the prisoners) into my standing army” (CAD A/2: 270), or “350 shield(-bearer)s, 240 bows (i.e. archers). Total: 590, who did not come” (Fales and Postgate 1995: 81). The connection between the numerical values of the two groups is clear, as we would expect from the images on the reliefs. It is interesting that the second reference actually lists more shield-bearers than archers, reminiscent of the ninth century images of two shield bearers for each archer.

A document from Tell Halaf lists the equipment issued to a unit of ten men as being: “ten bows, ten daggers, ten [helmets], 31 ten quivers, (and) ten shields” (CAD A/2: 269). Here we have what is clearly a group of archers issued with shields. No mention is made of shield-bearers. While there are instances in the reliefs where archers are shown with shields, it is not a common occurrence, though you do see shield-bearers carrying extra quivers and arrows. The simple fact that both shields and quivers were carried upon their backs when marching would have made the demand to carry both difficult.

31 Note that I have followed Kendall (1981) in reading ‘gurpis[šē]’ as helmet not hauberk as translated in the CAD (see Chapter 6).
Another document from Tell Halaf mentions nine of one type of shield and ten of another (it is unfortunate that we cannot determine what is meant by the designations) as equaling a total of nineteen ‘heavy’ shields (CAD A/2: 269). That the shields thus issued were specifically identified as being ‘heavy’ suggests a contrast with other shields that must have been lighter. The variety in weight of the shields probably stems from the variety of materials used. There are references to shields made of leather, bronze, silver, and gold, as well as combinations of the above. There is also a reference, though from a Neo-Babylonian context, to wickerwork shields: “the willow(s) which I planted along the irrigation ditch, all of them they could use for shields” (CAD A/2: 270).  

Finally, an indication that shield usage could go beyond simple military purposes: “six golden shields, which were suspended to the right and left of his (the god’s) cella, shining like the sunshine, and from the center of which heads of raging [lions] protruded, which contained red gold to the weight of five talent and twelve minas” (CAD A/2: 269). About this several interesting connections can be made. The reference to ‘the heads of raging lions protruding’ from the shields would seem to describe the small round everted rim shields with the spikes and lion’s heads depicted in the reliefs. These are one of the most extreme types of shields represented, and yet here is a textual example that would seem to echo this type of design element. Obviously, an equally important fact to be gleaned from this quote is that shields could be used in a ritual context, and not necessarily the types of shields that would be found in daily use. Is this the case with the large convex shields seen surrounding the lion hunts of Ashurbanipal? A shield of gold would be easily recognized as beyond the normal use of a

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32 Note that the CAD translates a-ra-a-ti here as from arītu, ‘shield’, but it could also possibly come from erretu, ‘bank reinforcements’, and therefore not in fact relate to wicker shields at all (see Frame 1995: 281, n. iv 8; Darley1984: 202-203).

33 Note that the CAD translates this word as ‘dogs’ following Thureau-Dangin (1912: 58-59, pl. 18 ln. 370-371). However, more recent scholarship now reads the sign as lab-bi instead of kal-bi, therefore lions instead of dogs (see CAD N/1: 65).
soldier, but can we be so sure about other items of less precious metal? How could a ceremonial piece be differentiated from an actual piece of military equipment in the archaeological record? The artifactual remains raise exactly these same questions.

**IV.4 Shields: Summary Observations**

The representations of shields in the reliefs show a great diversity of both type and usage. While Madhloom and others have tried to indicate a changing pattern chronologically, what is far more apparent is that the Assyrians modified their shields constantly depending on practical needs. However, great care must be used in claiming too much information from the reliefs here as elsewhere. Shields are large in size and fill significant space when planning an artistic representation. Their illustration would have been a major design factor for the Assyrian artist. This is best illustrated by the fact that shields are almost always illustrated in one of three ways: in profile, frontally, or behind the figure. These tend to be consistent with whichever format best represents the essence of the style of that type of shield. This is not unlike the Egyptian practice of drawing everything from the angle which illustrates its appearance most clearly. Certain types of shields are almost always represented in profile, while others are only shown frontally, making a full analysis of them difficult. Alternatively, choosing to illustrate a shield on the far side of a person, or slung on their back also saves space artistically.

Sometimes these artistic modifications can go as far as changing the shape of an object to provide clarity to the viewer, such as the palisade shield with the handle stuck on the side. While this provided a clear view of the arm and hand of the shield-bearer it makes a highly unlikely construction, and not one seen anywhere else.

The question of materials used to construct shields is precarious to try and deduce from the reliefs alone. As has already been seen with the Ashmolean dagger (fig. 2.9) weapons could
be created of one material to mimic another. This would not be apparent in the reliefs. Also a great deal of weight is placed on the decoration of individual shields in the representations to decipher their method and material of production. Arguments that suggest that a checkered pattern may represent wickerwork are understandable but could be misleading. Equally, the somewhat random belief that large shields without patterning are therefore of metal cannot necessarily be supported.

If we return to the artifactual record we will recall that a fairly limited repertoire of shield types existed. Almost all of the shields found in Assyria and her nearest neighbours are bronze, 70-100 cm in size, round, and convex. Only the Hasanlu examples and one of the Nimrud fragments at the British Museum suggest the potential for smaller sizes. And only the bronze omphaloi from possible wicker shields at Karmir Blur, hint at other possible material types if not actually different shapes.

The lack of any finds in any of the other categories described by Madhloom would seem to support the concept that most of these other types were of perishable material. The rectangular shields and palisade shields certainly seemed to have been made of wicker and so would leave no record. This would also be true of the wicker tower shields, and may support the conclusion that the other examples are indeed of leather not of bronze. It is debatable whether we should consider the flat round shields, the small ones with the everted rims, or the large convex shields as pictorial representations of the finds from Nimrud. But the Nimrud shields, along with the possible Urartian omphaloi, are the only artifacts we have available to try to corroborate the shields depicted on the Late Assyrian reliefs.

The large round convex shields from Nimrud do not seem to fit into any of the types in the pictorial record, though Madhloom places them under his early flat round shields as seen in the reliefs of Ashurnasirpal II (Madhloom 1970: 54). I object to this on the grounds that these
shields are neither flat, nor of a comparative size to the illustrations of this type. Madhloom takes the extant artifact and, knowing where it comes from, chooses to make it fit into the typology based upon the reliefs. He goes further to suggest that the size of his flat round shields from the reliefs “did not exceed two feet and a half in diameter. This information is based on extant examples in bronze found by Layard at Nimrud” (Madhloom 1970: 54). Having admitted that there are extant examples from Nimrud surely it must equally be admitted that they do not fit into the typology based on the reliefs, so this approach is clearly flawed. One cannot simply try to lump the real artifacts into the existing typology.

If we try and fit the Nimrud artifacts into any of the other round shields depicted on the reliefs we find a similar problem. They could be compared to the round convex shields of the ninth century as perhaps a parallel for shape, but the relief depictions are too small. The everted rim type echoes the rims on the Nimrud examples, but again the size is inconsistent, and there is no boss. On the other hand, the large convex shields of the seventh century, a more realistic date for the existing shields, are too large and their rims do not appear to be of the right shape.

It is unfortunate that there are no Late Assyrian pictorial examples of round shields, large or small, that show an exterior surface with the clear pattern of handle rivets visible on our artifacts. The example from Sennacherib’s Lachish reliefs of a shield’s exterior does not in fact indicate how the handle is attached. We are left then to assume that either Layard’s large round bronze shields are not represented in the reliefs, or that they are represented in a way that is far enough from the truth to make recognition difficult. It is possible that the early round types are not as flat as has been supposed, and that if exteriors were shown at the time of Ashurnasirpal II the shield would indicate the type of rim design seen in the extant artifacts. It is equally possible that the size indicated on the reliefs is too small, an artistic convention used over a
considerable time to conserve space. Or are we to believe that these shields as found by Layard served some other function?

The smaller round shield from Nimrud represented in Fig. 4.4 provides an alternative shield artifact. One oddity is its lack of handle rivets or any indication to suggest where or how a handle might have once been attached. As a substantial part of the middle section is intact, that these elements are missing is curious. In its present condition, it represents a good example of the type of small, plain, round shields which were common on Late Assyrian reliefs. The lack of any distinct handle rivet patterning also brings it closer to the relief representations. The rim curves sharply up and out, away from the face of the shield, in the manner of the everted rim types. However, when drawn frontally (as in my drawing) it looks much like the small rimmed shields represented, for example, in the Nimrud ivories (Mallowan 1970: pl. 12 no. 36c; pl. 18 no. 62).

Further questions are raised by the find spots of many of these artifacts and what their final usage may have been. At Karmir Blur, as at Nimrud, the artifacts seem to have been stored for their worth in metals rather than specifically for their use as defensive weapons. Alternatively, one could suggest that the large number of shields found resting where they appear to have fallen from walls or up against architectural frameworks suggest that these were hung up as decorations and do not necessarily reflect actual items for military use.

This recalls the pictorial descriptions from Sargon II’s eighth campaign to Musasir. The Urartians are shown to have had large shields mounted before the doors of the temple of Haldi. This, in connection with the fact that most of the Urartian examples have dedicatory inscriptions to the god Haldi from the king, may mean that none of these examples should be seen as anything more than ceremonial. If these shields are all ceremonial trappings from a temple though, it is surprising that they should find themselves serving as lids in storerooms.
One other factor which could suggest that the Urartian shields differ from the Assyrian ones in respect to usage, lies in the design and placement of the handles. The Nimrud examples appear to have one large central handle as seen in use on the reliefs. The Urartian handles, when they exist, run perpendicular to the rim of the shield and in some cases at least, appear in pairs. While this is an unlikely formation for using a shield, it would be ideal for attaching it to a wall by hanging it upon two studs or perhaps by two ropes.

We can only assume that these shields, whether any of them individually served a practical function or not, must have borne some resemblance to actual items used in combat by armies of the period. The similarities throughout this group are striking and show again the homogeneity in military design throughout the region.
Fig. 4.2: Bronze shields from Nimrud.
Fig. 4.3: Bronze shield fragment from Nimrud. Drawn to scale.
Fig. 4.4: Small bronze shield from Nimrud. Drawn 1:2 (rim detail, 1:1).
Fig. 4.5a: Bronze shield from Toprakkale (Barnett 1972: fig. 3).
Fig. 4.5b: Shield from Toprakkale found by Clayton (Barnett 1950: fig. 8).
Fig. 4.5c: Handle of Urartian shield (Barnett 1972: fig. 2a).
Fig. 4.6: Possible shield omphaloi from wicker shields at Karmir Blur (Barnett 1959b: pl. 2a).
Chapter V: Armour

Armour needs to be designed to balance its cost and weight, against its effectiveness, and this varies for different situations. The biggest factors are protection and mobility. Generally, ‘more armour = more protection = less mobility’ and ‘less armour = less protection = greater mobility’ (Hulit 2002: 3). Since one of the best forms of defense is escape, heavier armour is not always the answer for increased longevity.

The two main principles behind the development and use of armour is that it will serve as a substitute for a shield, allowing the soldier to use both hands for the task which he is about, and provide some protection for the wearer against attacks which he is unable to avoid (Hulit 2002: 3).

Armour’s value is also a question of the time and expense involved in its manufacture. Even a fairly simple coat of scale armour requires a lot of man hours to produce, and can represent a prestige item, thus further complicating analyses of the archaeological record.

V.1 Armour: Artifactual Evidence

The material evidence of armour in the Late Assyrian period consists of a large quantity of small metal scales that have been discovered at many sites. Often they are found in only limited quantities, but some sites, either due to their violent destruction or to more extensive excavation, have yielded much larger numbers. These scales come in a variety of common types, in a wide range of sizes, and in both bronze and iron. The wide selection and quantity of scales found suggest that we have a representative sampling from the Late Assyrian period to study. Many scholars have worked on how these armour scales may have been used to create coats of scale armour. This includes discussions of how scales could have been laced together, the patterns such laced scales might follow, and the types of armour that they may have formed.
Terminology is also problematic when dealing with armour, because many scholars use a wide range of vocabulary for this subject. For consistency, I have chosen to refer to the small individual pieces that have been excavated as ‘scales’, and the full item, as a ‘coat of scale armour’. One should be aware that many authors use the word ‘plates’ instead of scales. This is a perfectly good term and is admirably free of the weight of interpretation, but it is clear that these scales are what they appear to be, and therefore I wish to simplify matters. Less suitable terminology is to be found with the often used description, ‘coat of mail’. While armourers of various periods do speak of ‘scale mail’, technically, ‘mail’ refers to ‘chain mail’, which does not appear historically until the third century B.C.E. at the earliest (Feugère 2002: 74). Finally, I have avoided the term ‘suit of armour’ as, to my mind at least, it is too reminiscent of medieval knights in full suits of plate armour.

Another point of discussion is the difference between ‘scale armour’ and ‘lamellar armour,’ both terms having been used to describe the armour of the Assyrians. The principle difference lies in the question of whether or not these scales were attached to a backing. In scale armour, while the scales are laced together, they are also stitched to some sort of backing material, possibly leather or a woolen fabric. True lamellar armour, while made of scales, does not have a backing, the scales instead being laced to one another in an overlapping pattern and hanging free over the body. Lamellar armour is therefore lighter and has increased mobility compared to scale armour. Robinson (1967: 8) proposed that the long, ankle length coats seen in some ninth century Assyrian reliefs indicate that they are responsible for the early development and spread of lamellar armour. As both scale armour and lamellar armour consist of scales, the difference simply being one of construction, these questions are best answered by the reliefs and shall be discussed in further detail later in this chapter. I have chosen to use the
phrase ‘scale armour’ even if lamellar is a possibility, considering the latter to be a specialized version of the more general term.

Archaeologically, a backing material made of a perishable material such as leather or wool, is difficult to prove. Equally difficult to verify is the interesting possibility presented by the recent work of Thomas Hulit (2002) which suggests that scales might themselves have been made of leather. Hulit’s study of Late Bronze Age scales provides archaeological and textual evidence for the widespread use of leather and composite scale armour. He suggests that this is one of the reasons for the lack of finds of metal scales in Near Eastern excavations, and demonstrates the effectiveness of such material against archers.

An excellent site for the study of scale armour, combining both excavated material and textual data, is Nuzi. Though 500 years earlier than our period, the similarity of the material, as well as its probable basis for later scale armour found elsewhere, makes a study of Nuzi valuable.

V.1.1 Nuzi: A Case Study

Nuzi, now Yorghun Tepe, is located 13 km southwest of the modern city of Kirkuk in northeastern Iraq. It was excavated between 1925 and 1931 by Edward Chiera, Robert H. Pfeiffer, and Richard F.S. Starr. Nuzi is particularly interesting for the wide variety of urban areas that were uncovered: government complex, temples, and rich and poor neighbourhoods at both the town’s centre and periphery. The site also yielded close to 7000 documents, private and public accounts, most of which can be linked to their archaeological context (Maidman 1995: 931-932). The majority of artifacts and documents come from the Stratum II town, over which there is some debate concerning dating. For our purposes, I shall follow Maidman’s
approximate dates of 1500-1350 B.C.E. This city was destroyed by the Assyrians, likely under Ashur-uballit I (Maidman 1995: 934).

A considerable number of bronze scales were discovered at Nuzi during the 1930 excavation season by Starr. They were found 300 m north of the main tell in an area containing the wealthy “suburban” homes of men such as Tehiptilla, Shurkitilla, Ziki, and Shilwa-Teshub (Hulit 2002: 76-79). The homes of this area have been described as ‘villas’ due to their size, uncluttered location, and the wealth of artifacts found within them (Maidman 1995: 937, 940).

These scales fall into two distinct types. The first (fig. 5.5a), is rectangular with a half-circle protruding to the side of either the top left or top right corner. This type is not pierced by any holes and has a slight ridge running lengthwise and off-centre towards the long edge with the half circle protrusion. It is difficult to understand how these might have been attached as scale armour, but it has been suggested that they hung vertically with a cord crossing the ends, under the protrusion, into a fabric or leather base, and then out again to overlap the next scale (Starr 1937: 473). As this type of scale is unknown from later Assyrian contexts, we will concentrate on the second type found at Nuzi.

The second type (fig. 5.5b) is best exemplified by a corselet found in Room 18 of the House of Shilwa-Teshub, “son of the king”. The bronze scales of the corselet are rounded at one end and pierced with several small holes. They have a centrally placed ridge on one side with a corresponding groove on the reverse which extends about three-quarters of their length. The long edge is raised slightly on one side and lowered on the other. This is not universally on the same side, but is constant for each pattern of pierced holes. The raised edge is always the one which has piercings near the round end. No doubt, the shape of the scales was intended to allow for a proper overlap and a close fit when the scales were laced together. The raised ridge in the centre would serve both to strengthen the individual scale and to prevent slippage. The
bronze scales of the corselet are quite large, measuring 11.8 x 6.3 x 0.2 cm (Starr 1937: 476). This makes them larger than the other scales found at Nuzi and any first millennium Assyrian examples. Such large scales would involve less effort in manufacturing as fewer scales would be needed to be made and laced together, however the armour would be less flexible (Hulit 2002: 81).

Other scales with rounded ends found at Nuzi were smaller in size (fig. 5.5c-e), perhaps intended for smaller areas of the body which needed greater flexibility. These smaller scales range from 5.1 to 6.4 cm in length and 2.5 to 3.6 cm in width in nineteen pieces measured. There were also two specimens of a medium size 10.1 x 4.5 x 0.2 cm. On these individual scales it is possible to detect that the sides are not absolutely parallel, being often narrower by 1 to 3 mm at the square end. Starr suggests that since the corselet shows that any given portion of armour required a large number of scales of uniform size, the large variety in sizes of scales found indicates a great quantity of different suits of armour, a speculation which he supports by the uniform distribution of such scales found, though the total number of scales was not large (Starr 1937: 477). However, it is equally likely that different sizes of scales were necessary to make a single suit of armour, a fact which is confirmed in the texts to be discussed. Thus there is no reason to assume that any one piece of armour might not in fact have had several sizes of scales intended to cover different areas such as the shoulders, neck, or upper arms. Some of these areas may even have had a series of graduated scales.

A variant of the rounded end scales, was a single example of a scale 12.7 cm long by 3.2 cm wide, with a rounded point at one end. This large scale could possibly have been used for helmets or as part of armoured skirts (Hulit 2002: 82).

Unfortunately, Starr did not provide complete information concerning the numbers and distribution of the scales. However, as the ‘villas’ in the wealthy suburban quarter are
specifically mentioned as the find spots for all of them, this is not necessarily suggestive of a wide distribution throughout the excavation. Reasons for the presence of this particular style of armour in these locations will become more apparent from the textual material from Nuzi.

One last matter for consideration before moving onto the textual sources from Nuzi concerns the lacing of such scales. Most excavated examples of scales have been found individually or sometimes corroded into small piles of less than ten scales each. It is less common to find large numbers of scales in situ, and none have been found with whatever material was used to lace them preserved. Presumably this is due to the fact that they were laced with leather or some other perishable material. The same is true for whatever sort of backing, perhaps of leather or fabric, they were originally attached to.

There are many different suggestions for the positioning and lacing of scale armour. The Nuzi scales that are pierced and rounded at one end, also have a slight curve along their long axis (fig. 5.5a), which Starr presumed was to adhere to the curve of the body. Therefore, he is of the opinion that these scales were hung horizontally, their long axis perpendicular to the body (Starr 1937: 478). This is in opposition to the normal position illustrated on the Assyrian reliefs, which show the scales hanging vertically with the rounded end downwards (pl. 27).

Even Starr sometimes has difficulty arguing his hypothesis of scales configured horizontally. He admits that the scales are widest just before they begin to round and taper slightly towards the square end. He goes on to say that this “might be taken as an indication that the plates hung vertically. However, since so many considerations argue against this supposition, it would be more reasonable to believe that the narrowing – and the general shape – is all that remains to show that these plates are a horizontal adaptation of an earlier vertical type of armor plating” (1937: 477). It is entirely unclear what Starr means by “so many
considerations argue against this”, and far more reasonable to assume that the scales do exactly what they appear to do and hang vertically.

The holes pierced in the Nuzi scales are fairly consistent with two opposite variants. The scales generally have three holes at the square end running from the central ridge across to one edge, two holes at the round end running from the central ridge across to the opposite edge, and two holes between the end of the central ridge and the rounded end itself (fig. 5.5c and d). The two variations are simply mirror images of each other. A few other arrangements (fig. 5.5e) of holes exist which may indicate that they were to be used for securing the end of rows (Starr 1937: 477).

The corselet from the House of Shilwa-Teshub consists of 36 scales in two rows of 18 overlapping scales. The most reasonable position for these scales would be for the convex side with the protruding ridge to be facing out. The two rows of scales were found, fused together, with one lying right side up and the other upside down with the rounded ends touching each other. Therefore, this is not their natural position. It also suggests that these two rows were not attached to one another or to a backing material. Possibly these are part of an incomplete suit or perhaps a ‘repair kit’. This would also explain their presence hidden in a storage jar at a time when the city was in danger, and presumably every complete coat of scale armour was needed (Starr 1937: 478-479; Hulit 2002: 78, 85).

Despite Starr’s conviction that the scales lay horizontally across the body in vertical rows, his suggested lacing method was credible, and in fact what he described sounds like that of the leather armour found in Tutankhamun’s tomb (Hulit 2002: 84) which will be discussed below. The lacing went through the set of holes closest to the edge at the square end and through the two holes near the opposite edge at the round end. Thus the lacing for one row of holes is completely and continuously covered, and the other end is only exposed for about 6 mm
as it comes up from underneath. The two holes at the round end and the one in the centre at the square end serve no evident purpose for the binding of the vertical row, and are presumably used to attach vertical rows together. Once several such vertical rows of overlapping scales have been attached together the previously exposed part of the lacing would be covered by the next overlapping row (Starr 1937: 477-478). It is unfortunate that Starr does not provide a drawing of his proposed configuration.

Starr’s second possibility is that they were laced in double rows of identical scales, back to belly, laced tightly to, and interlocking with an identical lower pair. This would provide for quadruple the strength for protection, but an unwieldy bulk. However, this would account for the large number of oppositely pierced scales excavated at Nuzi, as well as the extremely large number of scales mentioned in the Nuzi texts as being part of an individual suit. This system can be seen in use at Nuzi with three large rectangular plates which were presumably part of a set of horse scale armour (Starr 1937: 478, pl. 126L).

We are very fortunate at Nuzi to be able to corroborate the information learned from an examination of the scales with textual information. A group of tablets found in room N120 of the palace provides us with a good deal of information about the military at Nuzi. These contain lists of soldiers who did or did not go into battle, and inventories of military equipment. The army was divided into left and right wings and consisted of infantry, cavalry, and charioteers. The protective equipment of the soldier was a coat of armour (sariam). This same word was used to describe armour for chariots and horses as well as men. These coats were made of bronze and leather scales (kursimetu) sewn onto a leather garment (Lacheman 1937: 540).

The Hurrian word kursimtu for an armour scale may be derived from an older Akkadian word meaning ‘snake’ or the ‘scales of a snake’. The CAD lists three meanings for the word kuršindu: 1) a snake, 2) plate(s) of armour, 3) hatchet (Hulit 2002: 5; CAD K: 567). It does not
take much of a stretch of the imagination to see how the appearance of a snake’s scales might suggest the possibilities of scale armour.

When first excavated the corselet was thought to represent a complete armour unit intended for protecting either the chest or the abdomen. However, textual sources make it clear that this small number of scales would barely have been the start of a complete set of armour. The inscriptions found at Nuzi list bronze armour as consisting of many hundreds of scales. The texts also list large and small kursimetu of armour as being needed. A tablet from Room R87 of the government complex lists four suits of armour consisting of 400 large and 280 small scales, 435 large and 312 small scales, 500 large and 360 small scales, and 595 large and 440 small scales respectively. So, for these four suits of armour alone the number of scales required ranged from 680 to 1035 scales (Starr 1937: 479). Despite the fact that the overall number of scales varied greatly, it may be assumed that the method of construction was similar in all cases because the proportions of large to small scales was consistent. In each of these four cases, the large scales made up 57.5 – 58.8% of the total number of scales used.

Starr estimated that if these numbers represented a single thickness of overlapping scales, the largest suit of armour would cover enough area for a loose-fitting cloak extending from neck to knees for a man over twelve feet tall (1937: 479). This alone suggests that these suits must have had at least a double thickness of scales. Assuming that the large and small scales in the texts refer to the large and small round-ended scales discovered at Nuzi, and knowing the weights of those scales, it is possible to estimate the weight of a coat of scale armour. Kendall estimated that the smaller numbers in the texts would elicit a coat of scale armour weighing 16.548 kg, and the larger numbers, armour of 25.854 kg. While the former would be quite manageable, the latter would be cumbersome (Hulit 2002: 83). The wide range of possible weights here must indicate quite a variation in styles of armour available.
Another type of armour mentioned in the texts is the *gurpisu*. However, Timothy Kendall (1981) makes an excellent argument that this item is in fact a helmet, so it will be discussed in Chapter 6.

The large number of scales employed in any one coat of armour indicates the great costs which went into making it, in both time and resources. Obviously, a whole army could not have been so well-equipped. It is generally assumed that full coats of scale armour were provided only for charioteers. The texts give us several indications of this. Firstly, the scales are often given to individual men named specifically in the texts:

Bel-Ahi received from the palace one coat of mail that fits the body made of 400 large scales, 280 very small scales, the sides and decorations(?) of which are of copper; one *kurpisu* of copper made of 190 scales; one coat of mail for the *tarkumâzu*. Wurrukuni received from the palace one coat of mail (*şariam*) of copper; for the side of the body, made of 598 large scales, and 544 small scales, the sides and the *KAB* of which are of copper; one coat of mail (*şariam*) for horses he received, their *kurpisu* covered with copper. Ununiašu also received from the palace a coat of mail and a *kurpisu* made of 190 scales, one shield, a leathern coat of mail for horses and a *ka qa ni aš šu* covered with copper. (SMN 2087) (Lacheman 1937: 541)

Secondly, it is clear that the same men were also provided with armour for horses. And lastly, when infantrymen, especially bowmen, are listed, they are listed with shields (*arîtu*) for protection (Lacheman 1937: 541).

This brings to the fore work done on the social classes at Nuzi as revealed in the texts. At least seven different groups have been identified. In descending order, they include: the “son of the king” (*mār šarri*), “charioteer” (*rākib narkabti*), *nakkuššu* (meaning unknown), “taxpayer” (*ālik ilki*, literally, “performer of the *ilku* obligation”), “dweller” (*aššābu*), *ḫāpiru*, and “slave” (*wardu*) (Maidman 1995: 941). It should be remembered that Shilwa-Teshub in whose house the iron corselet was found was listed as a “son of the king”. This need not be taken literally as an indication that he was a prince, such men may simply have been royal appointees. Not all men were as rich and powerful as Shilwa-Teshub, the next four groups
appear to make up the bulk of the main society of Nuzi and appear throughout the texts. All four are mentioned together in what appears to be a hierarchy in some military documents: muster lists, losses, and disbursements of barley rations to elements of the army. Though these documents are of a military nature, these groups should not be considered military ranks, as these same classes appear in other types of documentation. Only the “charioteers” have a title which appears to be clearly linked to their military function (Maidman 1995: 941). After the “son of the king”, the “charioteer” is the highest ranking member of society and probably the best documented in the texts.

The “charioteers” seem to have been involved in all phases of the logistics of the chariot corps: driving the vehicles, manning their armaments, maintaining them, and serving as quartermasters for their depots. However, they also had civilian occupations, such as serving as judges, court deputies, scribes or civil servants. Their military status obviously was quite high and generally, though not always, this translated into a high economic status (Maidman 1995: 941). It was this group of people within the Nuzi social hierarchy who were likely the bearers of the coats of scale armour found in the excavations. Much of the military materials found came from the excavations of the houses in the wealthy suburban areas outside of the town.

Little can be said about the appearance of these Nuzi suits of armour. There are no wall paintings or reliefs to help suggest the style worn. All that can be concluded is that such a large number of scales must have provided complete body protection; the suits of armour perhaps being similar to the full length tunics depicted on the reliefs of Ashurnasirpal II.
V.1.2 Artifacts from Nimrud

The site of Nimrud has produced the greatest amount of provenienced scale armour. Every excavation has turned up large quantities in both bronze and iron. While most of these artifacts have been found in Fort Shalmaneser, an obvious location for the discovery of all types of arms and armour, armour scales have also been found elsewhere. Austen Henry Layard in the earliest excavations at Nimrud described finding armour in the Northwest Palace, both in Room AB and in Chamber I (Layard 1953b: 194; 1949b vol. 1: 341).

As we approached the floor, a large quantity of iron was found amongst the rubbish; and I soon recognized in it, the scales of the armour represented on the sculptures. Each scale was separate, and of iron, from two to three inches in length, rounded at one end, and square at the other, with a raised or embossed line in the centre. The iron was covered with rust, and in so decomposed a state, that I had much difficulty in detaching it from the soil. Two or three baskets were filled with these relics (Layard 1949b vol. 1: 341).

Besides Chamber I in the Northwest Palace, a surprising amount of iron also came from soundings in the outer town to the north of the ziggurat. These finds included hoes, daggers and scale armour (Oates and Oates 2001: 249).

Fort Shalmaneser has produced more armour scales than any other Assyrian site. Hundreds of bronze and iron scales have been discovered in its many storerooms. The bulk of these come from rooms in the southwest and northwest quarters of the site excavated in the 1950s and 1960s, as well as a large number from room T20 intensively excavated by the British in 1989. Presumably, when Nimrud was destroyed in 612 B.C.E., Fort Shalmaneser was looted along with the rest of the city. However, many less valuable metal objects such as the armour scales were left in situ.

In the case of armour, iron and bronze scales seem to have been found in almost equal quantities. Iron scales provided better protection from punctures and were more easily repaired than bronze. However, iron was also heavier and hotter to wear, and would have rusted easily.
It is possible that iron scales were worn by heavy infantry and bronze scales by those troops needing more mobility. Regardless of their uses, it is clear that armourers made both varieties, but quite possibly used different techniques for each (Muscarella 1988: 320).

Two armour scales from Room SW37 in Fort Shalmanesar were scientifically analyzed. Both had raised longitudinal ridges with a corresponding depression on the reverse and were likely made by being hammered into a stone form. Microscopic analysis indicated that the scales were made of mildly carburized iron, hammered at about 600° C (Curtis 1979: 378-379). It might be assumed that the bronze scales were cast like other bronze weapons such as arrowheads, but Walter Ventzke, in his study of scales at Kāmid el-Lōz, has suggested that those scales were cut from bronze sheet and then a punch was used to strike the longitudinal ridge into the scale. This hypothesis is based on the fact that while the various scales are similar, they are not identical, as they would be if cast. Furthermore, the ridges are depressed on the reverse, suggesting that, like the iron examples, they were pressed into a form, not cast in place (Hulit 2002: 70). These details are shared by the bronze Nimrud scales, suggesting that they too may have been produced in this manner.

The Late Assyrian scales vary greatly in size, but as even the largest are under 9 cm in length, they are too small for horses or chariots. Larger bronze and iron plates have been found which may serve these purposes. The scales come in two basic shapes: rectangular with parallel sides, or rounded at one end with sides which taper inwards slightly towards the square end. The tendency of these latter scales, to be widest where the curve begins is especially true of the smaller examples. Both types of scales are strengthened by a longitudinal ridge down the centre. This ridge is hollow in section, with a depression on the reverse of the larger scales. The smaller ones often do not appear to have this matching hollow, but this may be due to
corrosion. While most appear flat in section, a few have a flattened ‘S’ shape in profile, reminiscent of the raised and depressed edges of the Nuzi scales.

Unlike the Nuzi scales which seem to have a fairly consistent pattern of perforations, the Nimrud scales come in as diverse a variety of piercings as they do sizes. It is difficult to guess how they were laced due to the fact that few intact sections have been found and that the lacing itself was of a perishable material. The scales are presumed to have been laced to each other, overlapping as far as their longitudinal central ridges and then laced to some sort of backing material. Figure 5.9 provides an example, on display at the British Museum, of how such scales might have looked when laced together. This particular example shows the overlapping of each scale to the longitudinal ridge of the next, but has chosen not to suggest that the rows also might have overlapped the row above and below which is a further possibility. Presumably the extra holes not used in this example would have been for attaching the scales to their backing.

Because the Assyrian reliefs clearly depict armour as horizontal rows of vertically-placed scales, all authors when discussing the Nimrud scales have also followed this approach to the question of lacing. However, the few intact sections found do seem to confirm this method. There is certainly no indication that the pattern of vertical rows of horizontal scales which Starr suggested for the Nuzi material was followed by the Assyrians. It is in fact unlikely that this was followed at Nuzi either.

For this study I used as my corpus over 200 scales from Nimrud which were of a wide variety of size, type and material. The lack of discernible patterns among the excavated scales suggests that this variation was probably true in the Late Assyrian period as well. These scales were found by many different excavation teams over a range of years. The material assembled
is drawn from the collections in the British Museum and the Metropolitan Museum of Art which were excavated in the 1950s and 1960s by Max Mallowan and in 1989 by John Curtis.

The fragmentary nature of some specimens meant that not all of them could be included in the totals for each category, but a general distribution could be determined. The division of bronze versus iron scales was almost even, with iron scales slightly larger in number. Overall, two-thirds of the scales studied had rounded ends compared to those that were rectangular in shape. Interestingly, this percentage changes drastically if viewed by material. The bronze scales divide almost evenly between the two shapes, but the iron scales are 83% round-ended (fig. 5.1).

<table>
<thead>
<tr>
<th></th>
<th>Round</th>
<th>Rectangular</th>
<th>Quantity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron</td>
<td>92</td>
<td>19</td>
<td>111</td>
<td>56%</td>
</tr>
<tr>
<td>Bronze</td>
<td>43</td>
<td>44</td>
<td>87</td>
<td>44%</td>
</tr>
<tr>
<td>Quantity</td>
<td>135</td>
<td>63</td>
<td>Total 198</td>
<td>Total 100%</td>
</tr>
</tbody>
</table>

Fig. 5.1: Percentages of scales by material and general shape. (Sample size: 198 scales)

A considerable variation in size is also evident amongst the scales from Nimrud (fig. 5.2). The largest example is 8.9 x 3.3 cm and the smallest is 1.8 x 0.8 cm. This wide range is particularly true for the bronze scales. The bronze examples (fig. 5.3) also clearly show a closer adherence to certain proportions than do the iron ones. The iron scales (fig. 5.4) are so diverse in their sizes as to suggest that no standard proportions existed. However, a number of the iron scales available for sampling are so heavily corroded that their actual measurements may be

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34 Curtis, Collon and Green 1993: fig. 8; Muscarella 1988: 451-457; Stronach 1958: pl. 34; and my drawings of items in the British Museum’s collection. It is possible that some of the latter may in fact date back to Layard’s excavations.
Fig. 5.2: Scales plotted by length versus width. (Sample size: 163)
It should be noted that these points are not weighted, each point only represents one scale of a particular size (hence only 76 points).
Fig. 5.3: Bronze scales only, plotted length versus width.
Fig. 5.4: Iron scales only, plotted length versus width.
misleading. Furthermore, their fragmentary and corroded state means that a large number could not be used for statistical analysis.

The corrosion also makes it difficult to verify the positions of the holes for lacing. Despite this it is apparent that a rather casual placement of the holes existed, even among the bronze examples where the holes are more clearly defined.

Unfortunately, the preservation and character of scale armour is such that it is not often published in great detail. Though scales obviously have been found at other sites, illustrations are usually not provided in the excavation reports and quantities are too small to be worth examining in detail. So we must be content with only a couple of comparative sites.

V.1.3 Artifacts from Lachish

The destruction of Lachish by Sennacherib in 701 B.C.E. provides a nicely identifiable layer for pinpointing the weapons and armour in use at one particular time. The difficulty lies in determining what equipment belonged to the attackers, and what to the defenders. As discussed in Chapter 1, this period was one of internationalism in arms and the similarities in weaponry between the Assyrians and their enemies were close and constantly drawing closer.

The excavations of the 1930s only found 17 pieces of scale armour. Nearly all of these could be directly or indirectly connected to the destruction of Level III by Sennacherib. Of these scales, 7 were bronze and 10 iron, showing that once again both materials were being used in the same period (Tufnell 1953: 386). Where the original shape of the scales could be identified, over three-quarters are rounded at one end and almost two-thirds are clearly pierced. The poor state of preservation of many of the scales means that they are too incomplete to be accurately typed, and some are possibly not even identifiable as scales. Therefore, based on this sample, it would seem hasty to suggest that there were any unpierced scales at Lachish. The
majority seem to be rounded and pierced regardless of whether they are made of bronze or iron. No discernible connection can be made between shape, material, and piercing. However, given such a small sample size, it is unlikely that such a pattern would emerge.

V.1.4 Artifacts from Hasanlu

The site of Hasanlu yielded a large number of both bronze and iron armour scales. These came in both rectangular and round-ended varieties. The rectangular scales are pierced by six holes symmetrically arranged with three at each end. Oddly, only some of the rounded scales are pierced with holes. Both types have small raised ridges down the centre to add to the overall thickness and strength (Muscarella 1988: 54). It is unknown how the scales which appear to be unperforated would have been attached. Muscarella has suggested that the perforated ones were sewn together in overlapping horizontal rows to a thickness of three scales, but he does not state what evidence he has to support this (54).

The scales from both Hasanlu and Lachish, while providing us with few published details to add to our discussion, do corroborate the finds from Nimrud. They show that places, diverse both geographically and chronologically, yet still contemporary to our Late Assyrian period, were solving the question of armour scales in similar ways. The corpus of scales from both sites are a mixture of shapes (round vs. rectangular) and materials (iron vs. bronze).
V.2 Armour: Pictorial Evidence

Some of the earliest artistic representations of scale armour in the Middle East are found in Egypt. The tomb of Kenamon, who lived during the reign of Amenhotep II (1436-1411), has a painting depicting a garment of ribbed bronze scales laced to a foundation and including an attached tubular neck protector. A wall painting from the tomb of Rameses III (1198-1167) shows scales illustrated with the laces connecting them in rows. This suit also has a standing collar, as well as short sleeves (Robinson 1967: 1-2). Older scales exist, such as those from Nuzi, which have been discussed, but unfortunately no artistic representations were found there. The Egyptian illustrations are remarkably clear and show horizontal rows of vertically hung scales rounded at the lower end (Robinson 1967: fig. 1). Typically scale armour is laced to a foundation garment as well as each scale to the next. The rows of scales usually overlap each other in an imbricated pattern like fish scales or roof tiles, though occasionally one scale immediately overlaps the one beneath it (Robinson 1967: 3).

Lamellar armour, as opposed to standard scale armour, is first laced together into horizontal rows to whatever length is required. The rows are then laced together vertically, overlapping upwards. It is this last feature that is essential for true lamellar construction. The resulting coat of armour hangs straight, to any length desired, with or without sleeves, and usually opens either at the front or the side. For riding, long skirts are constructed with a split. This armour is lighter and more flexible than scales sewn directly onto a heavy backing. Robinson proposes that the ankle-length coats of scale seen in a few Assyrian representations are indicative of the fact that the Assyrians were responsible for the early development and spread of lamellar armour. (Robinson 1967: 7)

Such heavily armoured individuals were generally depicted in siege scenes, so it is possible that such extreme armour was only considered necessary in very exposed situations.
However, even Robinson (1967: 7) admits that the waist length cuirasses seen more frequently in Assyrian reliefs do not appear to be of the same type. This type appears more solid, and he suggests that the herring bone pattern between each row is intended to indicate the lacing at both the top and bottom of the scales that attached it to some underlying material.  

Armour is illustrated in a variety of ways on Assyrian reliefs which show all branches of the military and the king himself in coats of what is potentially scale armour. A standard coat of scale armour consisted of a tightly fitting short-sleeved jacket which protected the body and upper arms, and a loose skirt which protected most of the legs. These skirts could be ankle-length, thigh-length or just cover the hips. The use of a separate lower section would help to distribute the weight of the full coat of armour scales from the shoulders onto the hips. 

However, the representations of scale armour on reliefs are far more difficult to interpret than illustrations of other types of arms. More than ever, we are relying upon an artist’s creative abilities to indicate the concept of scale armour. Many different sorts of representations can be found which vary over time. It is unlikely that these indicate any substantial change in the types of scale armour being made, just artistic conventions shifting fashion. Figure 8 indicates some of the patterns used to illustrate scale armour during the Late Assyrian period. Many more minor variants also existed. 

The most common representation of scale armour on the palace reliefs of Ashurnasirpal II has horizontal rows divided into small vertical segments by straight lines, and separated from the next row by a thin band (fig. 5.8a). These are no doubt intended to represent horizontal rows of vertical scales. These coats of scale mail are ankle-length and generally worn by archers in siege scenes. Somewhat surprisingly, the archers shown besieging cities on Ashurnasirpal II’s Balawat gates are shown without any armour at all. They appear to wear nothing more that light

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35 It is unclear to me why then he does not simply consider this to be an example of regular scale armour. Robinson refers to it as “a type of lamellar armour quite different from later specimens”(7).
tunics. However, Shalmaneser III’s gates depict archers who are clearly heavily protected. They are covered from head to foot in long coats which are marked with large rectangles (fig. 5.8b, pl. 25). We cannot be certain whether these are meant to indicate scales, simply drawn in this fashion due to the constraints of space, or whether some sort of quilted fabric or leather is indicated.

In the reign of Tiglath-pileser III, we see the last of these long heavy coats, though now often decorated with a series of small squares inset with smaller squares (fig. 5.8c; pl. 6). While it is possible that the small segments are indications of scale armour, I would argue that, on artistic appearance alone, the small squares could just as easily represent padded leather armour or perhaps leather armour with small metal bosses attached. In fact, many soldiers in the same period are depicted with what is commonly described as quilted leggings, but illustrated with similar patterns of small squares. This is of course where our problem lies. The artist was representing items quite common to the contemporary viewer. Thus, whatever shorthand conventions were used to illustrate the type of material would be easily understood. Close to three millennia later, we cannot hope to interpret armour styles from such tiny details.

The vast quantity of reliefs in Sennacherib’s palace at Nineveh, and the huge corps of craftsmen employed, led to a wide variety of representations of armour scales. The simple vertical segments of the ninth century are now also illustrated separated by criss-cross or herring-bone patterns probably intended to indicate the lacing of the scales (fig. 5.8a, d-h; pl. 7). This trend continued in the art of Ashurbanipal (fig. 5.8h, pl. 18, 26).

If we are to interpret most, if not all, of the patterns illustrated in Figure 5.8 as scale armour, then clearly a wide variety of artistic conventions were in use in the Late Assyrian period. The military historian’s traditional image of the Assyrian soldier wearing armour with

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36 Such bosses have frequently been found in the same sort of metal caches which contain scale armour and weapons. They are often considered to have come from horse gear but they may have had many purposes.
rows of perfect round-ended scales, is not easily found. This is an example of our awareness of the archaeological finds colouring our interpretation of the reliefs. Examples do exist of scale armour drawn to clearly indicate the individual scales with their rounded tips pointing downward (fig. 5.8i; pl. 27), though even here it is interesting to note that the usual illustrations cited are from the palace at Khorsabad where it is Flandin’s drawings, not actual reliefs, that are illustrated (Botta [1846-1850] 1972: pl. 49 and 77).

It may be, that in the vertical segments we are seeing illustrations of the rectangular scales that are also quite prevalent in Late Assyrian contexts. This might suggest that rounded scales are a later innovation, not present in Assyria until the time of Tiglath-pileser III, though we know that such scales existed at Bronze Age Nuzi. But, as Sennacherib’s reliefs show such a mixing of styles it would seem presumptuous to try and make such a statement based on the reliefs alone.

Size has been a factor in how weapons have been depicted in reliefs. The shields were often too big to be properly illustrated, and the spearheads, too small to show their details. However, in the case of armour scales I believe it is not a question of size, but one of quantity that caused the craftsman to rely on a shorthand approach. Indeed there are many fine examples of individually drawn scales which clearly demonstrate their shape, but they are found not on the monumental reliefs, but upon much smaller work in ivory. A series of chairbacks\textsuperscript{37} found in Room SW7 of Fort Shalmaneser show men wearing long coats of scale armour shown in incredible detail (see Mallowan and Herrmann 1974: pl. 14ff.). These figures are generally only 20-25 cm high, yet every individual scale is drawn with its round end pointing downwards and even the longitudinal strengthening ridge clearly indicated.

\textsuperscript{37} For a discussion of why these items of furniture should be considered chairbacks and not the headboards of beds see Mallowan and Herrmann 1974: 3-9.
While the Late Assyrian palace reliefs are marvelous for their detailed depictions, items like scale armour could easily be abbreviated in a manner that makes it difficult for the modern historian to give much weight to their artistic representation. Furthermore, very little information can be gleaned from the representational art about the specific methods of construction: the type of scales, their placement, and the type of backing material.

V.3 Armour: Summary Observations

The pictorial evidence from the Assyrian reliefs is inconclusive. Artistic license plays too great a part in the illustration of such a fine detail as armour, and our questions deal too greatly with that detail. However, some generalizations can be made concerning who at least apparently wore this form of armour. Interestingly, many soldiers in the reliefs do not appear to be wearing any form of body armour at all, unless their tunics are of some sort of soft leather. These may represent auxiliaries or light infantry.

Armour most frequently appears to be worn by the crews of chariots. As early as the ninth century there are representations of such men in full-length scale coats. The Balawat gates of Shalmaneser III and the wall reliefs of Ashurnasirpal II depict archers in such armour at sieges. Some have suggested that these men may represent dismounted chariot crews being put to use in an environment where there is no need for chariotry and where their better armour is useful in exposed activities (Stillman and Tallis 1984: 158). But, on the Balawat gates at least, the chariot crews do not appear to be wearing the same type of armour. It is equally possible that heavier armour was provided for different types of military units for sieges, when maneuverability became less important. Throughout the eighth and seventh centuries, coats of scale armour gradually became shorter and a greater variety of military units were seen occasionally wearing them. This trend can be traced from the reign of Tiglath-pileser III and
becomes particularly apparent under the Sargonid kings. While it is still possible that groupings of men, usually archers, depicted at siege scenes represented dismounted chariot crews acting in tandem (Stillman and Tallis 1984: 160), it is also quite clear that some cavalry, or even infantry, appear in short coats of scale armour. These infantry include both spearmen and slingers, as well as members of the royal guard. It should be noted that all troops shown in scale armour also wear the standard issue pointed conical ‘Assyrian’ helmet (see Chapter 6). At no time are soldiers whom we suspect to be auxiliary troops, such as those depicted with the crested helmets discussed in Chapter 6, shown in coats of scale armour.

The auxiliary troops, especially the Qurraean spearmen (see Chapter 3) depicted commonly in the seventh century, have a distinct form of protection of their own. They are represented wearing straps which come over their shoulders and cross in the centre of their chest covered by a roundel (pl. 9, 10). It is difficult to know how this outfit is to be interpreted. Is this a ‘uniform’ of a particular unit, or an ethnic mode of dress? And are we to consider this some form of armour? It is quite possible that what is being represented is leather straps with a bronze disc intended to provide some sort of body protection. Such a bronze disc, if found archaeologically, would no doubt escape interpretation as a piece of armour.38

A final comment should be made about the material of the scales depicted in the reliefs versus those found in the artifactual record. The scales from Nimrud indicate that bronze armour was still in use in the Late Assyrian period. However, even the shift to iron armour would not greatly reduce the investment in resources to provide the quantities of scales described in the texts at Nuzi. Coats of metal scale armour could surely only ever be the possessions of the rich. How then were entire armies, or even just elite units provided with the armour seen in the reliefs? This answer must lie in Hulit’s (2002) supposition that a far greater

38 A paper was given at the March 2009 meeting of the American Oriental Society by Fabrice de Backer entitled “A Neo-Assyrian period breast plate” which concerned the possible identification of one of these bronze roundels.
quantity of scale armour than previously recognized was made of leather rather than metal.

Leather scales are perishable and would not show up in the archaeological record, also accounting for the surprisingly small number of scales found in excavations.

The tomb of Tutankhamun has a rare example of a cuirass made of leather (Hulit and Richardson 2007: fig. 16). Even more surprisingly, some of the backing material and lacing has survived. The scales are made of rawhide, probably from sheep or goat, and were attached to a backing of six folds of linen. The loose pattern of lacing, similar to the Assyrian style (fig. 5.9), allows greater movement between the rows of scales allowing them to shift along both axes. This provides for greater mobility. The armour cuirass would have contained 2500 or more small scales which needed the hand of a delicate craftsman (Hulit 2002: 86-99). However, it is made of an inexpensive organic material, flexible and lightweight, making it an ideal alternative to metal scale armour. Hulit’s experiments in firing arrows at coats of scale armour made of bronze, rawhide, and composite armour made of both, proved the effectiveness of the leather scales. Particularly of interest, are his findings that armour made of composite bronze and leather scales was just as strong as that made solely of bronze. By combining the two, a great savings was made in weight and material cost at no loss of protection (Hulit 2002: 116-133).

Images on the Assyrian reliefs do not indicate what materials the soldier’s armour was made from. It is quite possible that the armour illustrated includes leather tunics, quilted fabrics, and possibly even leather scales.
Fig. 5.5: Bronze scales from Nuzi (scale 1:1).
Fig. 5.6: Iron scales from Nimrud. (scale 1:1).
Fig. 5.7: Bronze scales from Nimrud (scale 1:1).
Fig. 5.8: Armour “types” from reliefs.

Found in the reigns of:
- a) Ashurnasirpal II, Sennacherib
- b) Shalmaneser III (Balawat Gates)
- c) Tiglath-pileser III
- d) Sennacherib
- e) Sennacherib
- f) Sennacherib
- g) Sargon II, Sennacherib
- h) Sennacherib, Ashurbanipal
- i) Tiglath-pileser III, Sargon II
Fig. 5.9: Example of lacing Late Assyrian bronze scale armour.
(© Trustees of the British Museum)
Chapter VI: Helmets

The final piece of Assyrian military equipment to be examined is the helmet. Assyrian helmets, as depicted in the reliefs, fall into two general categories: pointed conical helmets, and crested helmets. Examples of both of these types exist both from Assyria and her neighbours. Unfortunately, the bulk of existing ancient Near Eastern helmets are unprovenienced and this can only lead to doubts about the representativeness of the sample which remains.

Tamás Dezsö’s Near Eastern helmets of the Iron Age (2001) makes any further discussion on helmets almost superfluous. He carefully discusses all known extant examples of Near Eastern helmets (provenienced and otherwise) and compares them to the reliefs to suggest a chronological progression for this material. This approach would be more valid if secure archaeological dating could help affirm the chronology. However, without dateable pieces we run the risk of once again placing all our faith in the reliefs to answer questions of military technological shifts. The admirable thoroughness of Dezsö’s work will be summarized in this chapter to round out our discussion of Late Assyrian arms and armour and to continue to examine the problems that emerge when the artifacts are compared to the reliefs.

VI.1 Helmets: Artifactual Evidence

There are three main types of Late Assyrian helmets: pointed conical helmets, crested helmets, and scale helmets. Of these, only the first two can clearly be identified in the artifactual record. The third, scale helmets, will be discussed later under textual evidence.
VI.1.1 Pointed conical helmets

The basic pointed or conical helmet is the ubiquitous head gear of the Late Assyrian army. Despite that prevalence, of the mere eleven conical helmets which Dezsö lists in his catalogue, only three are provenieneced, and only one of those is definitely Late Assyrian. Eight of these helmets are bronze, two are iron, and one is of composite manufacture (2001).

We will start by examining the single helmet from an excavated Assyrian context (fig. 6.1a).

This helmet was found by Austen Henry Layard and is presently in the British Museum. It was one of the many objects which he uncovered in Chamber I of the Northwest Palace. At length a perfect helmet, resembling in shape, and in the ornaments, the pointed helmet represented in the bas-reliefs, was discovered. When first separated from the earth it was perfect, but immediately fell to pieces. I carefully collected and preserved the fragments, which were sent to England. The lines which are seen round the lower part of the pointed helmets in the sculptures, are thin strips of copper, inlaid in the iron (Layard 1849b: 341).

This helmet is hammered out of a single piece of iron and measures 30.8 cm in height, 21.7 cm in diameter, and weighs 3.049 kg (British Museum collection database: BM 22496). Around the base are a number of small holes, probably for the attachment of a lining, or possibly for a hauberk of small armour scales. It was restored from fragments, and has undergone a number of careful studies.

R. D. Barnett had the helmet sent to the British Museum Laboratory to be X-rayed for a hint of inlaid bronze. Dr. A. A. Moss revealed a border pattern all the way around the edge and a small decorated area at the front (Barnett 1953: 101). However, it was a new X-ray examination in 1990 that truly revealed the elaborate decorative pattern on the helmet (Dezsö 2001: 27). The bronze inlay forms several parallel lines which encircle the base of the helmet. Between these parallel lines are a row of twenty-three officials or attendants in procession, framed by a bud-and-garland border. At the front, is a scene of the king holding a cup in his

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39 R. D. Barnett misattributed this helmet as one which had come from Nineveh (1953: 101), but Curtis has shown that it is amongst the items discovered by Layard in the Northwest Palace (Dezsö and Curtis 1991: 105-106).
hand, with the other hand raised. Before him is the crown-prince, also with his hand raised, and the fragmentary figure of an attendant (fig. 6.1b). Both the central scene and the procession of attendants are well known imagery in Late Assyrian art (Dezsö and Curtis 1991: 122). It is the similarity between this central scene and imagery at Khorsabad that has led Dezsö to conclude that this helmet should be dated to the time of Sargon II (Dezsö 2001: 34).

Victor Place described the discovery of three pointed conical helmets of bronze at Khorsabad, but no illustrations were given, and they no longer appear to exist. They are described as being pointed and “il était facile d’y reconnaître le casque simple, que était la coiffure habituelle des soldats assyriens dans les bas-reliefs” (Place 1867-1870 vol. 1: 65). No mention is made of any decoration.

Two examples of plain bronze helmets are listed in Dezső’s catalogue (2001: 25-26, pl. 1-2). The first was found by Flinders Petrie at Thebes. It has a pointed shape with a slight curve and two loops of bronze wire on the sides presumably to fasten a chinstrap. A second example was found in the Phoenician harbour of Atlit where it had suffered damage from saltwater. There are holes, 5.4 cm wide near the rim possibly for the attachment of earflaps or cheek pieces. Both of these pieces, though sometimes considered to be Assyrian, could also date as late as into the Persian period.

All the remaining conical helmets are unprovenienced and so will be discussed only briefly here. There are five decorated bronze examples, one similar bronze Assyro-Babylonian example, one composite bronze/iron, and one of iron alone.

Three of the bronze helmets are decorated with scenes of the king on either side of the tree-of-life under a winged sun-disk, a motif familiar from ninth century Assyrian reliefs. The other two examples have slightly more problematic imagery showing a “praying king” and a “coronation scene”. Muscarella argued that these latter two helmets, along with one of the
“tree-of-life” motif helmets were forgeries (2000: 184-187). His arguments are mostly based on the lack of iconographic parallels, as well as what he sees as crude and unskilled execution and irregular composition. Dezsö, while accepting Muscarella’s concerns about the two more problematic iconographic scenes, makes a good argument, contra Muscarella, for the “tree-of-life” helmet. The helmets with “tree-of-life” motifs also all have processions of attendants circling the base, similar to the Nimrud example at the British Museum. However, the ‘discovery’ of that motif by Curtis and Dezsö was not made until after the ‘forged’ helmet was first published in 1975. This would seem to verify its authenticity (Dezsö 2001: 26-29).

The bronze Assyro-Babylonian helmet shows a variety of decorative techniques with both repoussé and incising. The artistic motifs suggest a mix of Assyrian and Babylonian styles. Muscarella doubted the incised scene but not the helmet itself. He also placed this helmet in his section on Urartu rather than Assyria, though Dezsö felt that though its stated provenience was Urartu, there was nothing to suggest such affinities for this helmet (Dezsö 2001: 32; Muscarella 2000: 150).

The composite bronze/iron helmet is quite unusual in that it is made with one half bronze and the other half iron and then riveted together. This helmet does not have any decoration and it is unknown whether it would be worn with the two sections displayed front and back or to either side. The use of mixed materials, can have no technical or structural purpose and is presumably for visual effect. The Til-Barsip frescoes depict the play of the two metals by depicting iron as blue and copper/bronze as yellow. This same process of making two halves and riveting them together is apparent in the completely iron helmet as well. Making a helmet in pieces is simpler and cheaper than trying to hammer a single piece of iron into the necessary shape (Dezsö 2001: 32-33, 35).
VI.1.2 *Crested helmets*

Crested helmets are the second type represented both in the Late Assyrian reliefs and among excavated arms. These crests come in a variety of patterns which will be discussed below under pictorial representations. The artifactual record provides us with only some fragmentary examples.

Besides the pointed helmet found in Chamber I of the Northwest Palace, Layard also found:

Several helmets of other shapes, some with the arched crest,...but they fell to pieces as soon as exposed; and I was only able, with the greatest care, to gather up a few of the fragments which still held together, for the iron was in so complete a state of decomposition that it crumbled away on being touched (Layard 1849b: 341-2).

Sixteen iron fragments (fig. 6.2-3) with bronze inlay that are in the British Museum have been studied by Tamás Dezsö who believes them to represent parts of at least four of Layard’s crested helmets (Dezsö and Curtis 1991: 107; Dezsö 2001: 47).

The reconstructing of these helmets was a somewhat difficult proposition. Not only are they just a collection of random fragments from an unknown number of helmets, comparative material to use as a model is rare. “There are only three surviving helmets from the ancient Near East from which to reconstruct the form and shape of our helmets, and unfortunately none of them comes from a properly controlled archaeological excavation” (Dezsö and Curtis 1991: 114). Needless to say, this is not a good basis for any reconstruction. It was felt that all of the other comparanda available (see following materials from Hasanlu, Urartu, and Lachish) had helmet crests of a different structure, despite the fact that Muscarella had communicated his doubts as to the authenticity of at least one of their three comparative helmets (Dezsö and Curtis 1991: n. 52, 53). Therefore, these helmet reconstructions must be taken with a degree of caution.
The three comparative helmets used were from the Römische-Germanische Zentralmuseum in Mainz, the Prähistorische Staatssammlung in Munich, and the Badisches Landesmuseum in Karlsruhe. The first of these examples bears the inscription of the Urartian king Ishpuini, and the latter two are listed as coming from “Eastern Turkey”. It is the Karlsruhe helmet that Muscarella finds suspect. Furthermore, the two uninscribed helmets are ascribed not to Urartu by Dezsö, but are considered Assyrian based on their figural decoration (Dezsö and Curtis 1991: 114-115; Dezsö 2001: 45-47; Muscarella 2000: 150). All of these helmets are bronze and conical, with crests that curve forward. The crest supports have holes along the upper edges to attach the feathers or horsehair that made the crest. Two are made in a single piece except for the tip of the crest which is riveted on separately. The Munich helmet is made in five pieces, with the skull of the helmet, three pieces of the crest, and the crest tip all riveted together. The crest tips are bovid shape in two instances. They were decorated variously with concentric bands, arcs on the fronts of the helmets, or even, in the case of the Karlsruhe helmet, a complete “tree-of-life scene” (Dezsö and Curtis 1991: 114-115).

With these as models, Dezsö reconstructed the Assyrian iron fragments into similarly shaped crested helmets (fig. 6.4). The obvious rivet holes around the edges of many of these pieces, as well as the difficulty in hammering out such a complex shape in iron, suggest that, like the Munich helmet, they would have been made in pieces. The bronze inlay formed designs around the helmet’s base and on the front. One of the finest fragments has Ishtar of Arba’il standing on the back of a lion. Ishtar’s presence on the helmet could suggest that this helmet belonged to royal troops, as it is known that units of the army marched under particular gods. However, we also know that there were troops organized as territorial units including a group from Arba’il who might well wear their city’s patron on their helmets (Dezsö and Curtis 1991: 107-110; Dezsö 2001: 47-49).
The one other crested helmet which Dezsö lists among his Assyrian examples should perhaps be listed below with the other comparative material. But we shall follow Dezsö in placing it here. The site of ancient Lachish, in the destruction layer of 701 B.C.E., produced one complete helmet crest support. The shape of this crest support is quite different from those suggested above. It is a large arc, which was riveted onto the top of the skull-piece of the helmet. All around the edge are small holes to attach the crest. It was found while excavating the base of a wall along the roadway near the southwest corner of the site where the fighting would have been fiercest (Tufnell 1953: 97-98, 387, pl. 39 no. 1-2; Dezsö 2001: 41). We cannot be sure whether it belonged to the helmet of an Assyrian or a defender.

VI.1.3 Artifacts from Zinçirli

Three helmets were discovered by the excavations of Walther Andrae at the site of Zinçirli in northern Syria. All can be dated to the destruction level of 720 B.C.E. when Sargon II besieged the town. Two are of bronze and one of iron inlaid with bronze decoration. There is no evidence to indicate whether these helmets belonged to the Assyrians or the town’s defenders (Barnett 1953: 102; Dezsö 2001: 56; Andrae 1945: 75-76, fig. 83-85, 88, pl. 41).

The first of these helmets has a standard bronze conical point with three bands around the base, while the second bronze example has a rounded skull cap with a straight point on top and a winged sun-disc on the front (Andrae 1945: fig. 83-85). The sun-disc would suggest that this helmet is not Assyrian, as there is no evidence of sun-discs depicted on an Assyrian helmet without the tree-of-life motif as well. However, several possible North Syrian examples have the winged sun-disc alone (Dezsö 2001: 56-58, 68).

Unfortunately, the third helmet is only fragmentary (Andrae 1945: fig. 88). It is made of iron and has bronze chequered geometric motifs that are not paralleled in Assyrian art.
However, around the base are a row of buds similar to those seen around the central motif on the British Museum’s helmet from Nimrud.

Dezső points out that these helmets date to a period when North Syria was under Assyrian control, so that these helmets cannot truly be considered of purely North Syrian style. They should be regarded as the products of Neo-Assyrian imperial art and metalworking, which gradually assimilated the culture and crafts of the nations of the empire creating a *koine* at least in case of warfare, arms and armour (2001: 56).

Once again we see the ‘internationalism of arms’ that is a product of the Assyrian empire.

**VI.1.4 Artifacts from Hasanlu**

The Hasanlu helmets can be grouped into the same two types as the Assyrians’: bronze conical helmets and crested helmets. The conical helmets show the strength of Assyrian influence at Hasanlu in the ninth century. Dezső argues that those with the frontal arcs, without corresponding figural or decorative scenes indicate that Hasanlu is one of the first places to adopt this type of helmet from Assyria.\(^{40}\) Both of the helmets of this type were found in Burned Building II, Room 5. A third helmet is somewhat lower and squatter in form, which may be a Northwestern Iranian tradition (2001: 73-74, pl. 67, 71). Its fragments bear rosette decorations, another clear Assyrian influence. The strong Assyrian appearance of these helmets make it difficult to say if they were made locally or came from Assyria (74).

Hasanlu also has crested helmets which appear to have been made in several pieces including the skull-cap, earflaps and crest, and can be divided in two manners. First, some of the helmets have a double crest support in bronze, lined with holes to hold a crest of horsehair or feathers, while a second group of helmets have a bronze crest alone. The second division would be between helmets made entirely of bronze pieces, and those which have bronze crests which

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\(^{40}\) The Assyrians meanwhile had adopted the Urartian tradition of decorating their helmets.
presumably rested upon leather skull caps. The leather helmets were likely cheaper to manufacture and possibly more widespread. Of the five helmets discovered at Hasanlu in Burned Building II, one was bronze with a horsehair crest, two were bronze with bronze crests, and two were leather with horsehair crests (Dezsö 2001: 74-78; pl. 72-79).

The Metropolitan Museum of Art in New York has several fragments of a horsehair crested bronze helmet which was found at the head of a skeleton in BB II, Room 5. These fragments consist of one complete and one partial earflap, straight on one side and curved on the other, with a raised border and flat rim, pierced with many holes. Two parts of the crescent-shaped crest supports also exist, as well as some fragments of the skull-cap. The crest support of this type of helmet rested directly on the cap and followed the contour of the helmet (Muscarella 1988: 50). Dezsö describes two similar bronze crest supports as being the remains of leather helmets though it is unclear why these are not simply assumed to be the bronze supports of missing helmets.

Two more elaborate helmets exist from Hasanlu. They have bronze crescent-shaped crests mounted on to bronze helmets decorated in geometric patterns. Dezsö describes these as the only existing examples of a type which emerged in Transcaucasia and spread in the late second to early first millennium to the west, Urartu and North Syria, and to the southeast, Northern Iran and Hasanlu (2001: 77-78, pl. 75).

The ninth century was the last period of the popularity of crested helmets with the arc mounted flush to the skull-cap. It is visible on the reliefs being worn by the Urartians (for example on Shalmaneser III’s Balawat Gates), but also was common to many peoples to the north of Assyria as evidenced at Hasanlu. In time it was replaced by the conical Assyrian helmet (Dezsö 2001: 74).
VI.1.5 Artifacts from Urartu

Dezsö’s catalogue lists a phenomenal forty-six conical bronze helmets, eight conical iron helmets, two conical crested bronze helmets, as well as a number of bronze neck-guards, and earflaps/cheek-pieces from Urartu.

More than half the amount of ancient Near Eastern helmets known are Urartian....[they] have been found in large quantities in two types of findspot: votive stores of Urartian temples (e.g. Altintepe, south portico of the temple) and arsenals of royal palaces (Karmir Blur) (Dezsö 2001: 79).

However, this vast number is swelled by several large hoards of unprovenienced material which may have come from the above sites or other sites unknown. There are also helmets excavated from a destruction level at Çavuştepe, Uçkale and five from the Urartian fortress at Burmageçit. This is not to suggest that Urartu used more metal helmets than other nations, rather that the thorough sacking of the Late Assyrian capitals by the Medes and Babylonians has masked the probably similar situation in Assyria (Dezsö 2001: 79).

Only two undecorated bronze helmets are known from Urartu, and one of these has even been attributed as booty from the Assyrians. The Urartians showed a clear preference for decorated helmets from a very early period. The overwhelmingly favourite pattern, are the helmets with a repoussé motif on the front, considered to be a ‘lightning’ symbol of the god Teisheba.41 These include some of the earliest known pointed helmets from Urartu, dating back into the ninth century as indicated by one inscribed with the name of Ishpuini (830-810). These helmets are frequently inscribed “Property of (Royal Name)”, an inscription well known from other bronze objects. This inscription, considered a royal property mark, along with the symbol of the god, and the quantity of these helmets found, has led to the hypothesis that these helmets belonged to the royal body guard. Either the king owned the helmet, or the man who wore it was the king’s soldier. They were used from the ninth century down into the eighth century

41 No direct prototype of this ‘lightning’ symbol is known and it may in fact represent stylized horns or antlers (Loon 1966: 119).
when figurative elements replaced them (Dezsö 2001: 79, 82-83, pl. 86-87; Merhav 1991: 124-125).

Though Dezsö (2001: 93-94) lists five conical iron helmets, only one, from the site of Karmir Blur, is provenienced. It was hammered out of a single piece of iron and then the solid point was probably added separately. The lower part of the helmet is missing, so it is unknown if it was inlaid with decoration like our Nimrud example.

Surprisingly, Urartu does not provide a large quantity of crested helmets. These were the standard helmet of the Urartians in the ninth century, according to the Assyrian reliefs, but clearly the Assyrian pointed variety had replaced their own native tradition to such an extent that only two possible examples exist. One is the Mainz helmet discussed above as one of Dezsö’s comparative sources for his Assyrian fragments and the other is an exact parallel. Neither of these helmets is provenienced, though both are inscribed with the name of Ishpuini (Dezsö 2001: 94-95).

VI.2  Helmets: Pictorial Evidence

We will now once again examine Madhloom’s typologies based upon the Assyrian reliefs. The helmets depicted can be grouped into the same two basic types as seen in the artifactual evidence: pointed conical helmets and crested helmets. The latter have an extremely wide variation of design in the reliefs. As with the artifacts, there is no pictorial indication of scale helmets.

The commonest form of helmet in the Late Assyrian reliefs is pointed and conical, usually with some sort of reinforcing ribs and sometimes with earflaps or neck guards attached. Madhloom further subdivides these helmets into four types, A to D. Type A is the standard Assyrian conical helmet seen in reliefs from Ashurnasirpal II to Ashurbanipal (pl. 7, 12, 26). It
is conical in shape and usually has reinforcing ribs circling the base of the helmet and forming a semicircular arc in the front. In Ashurnasirpal II’s reign, they sometimes have a curtain of metal scales attached to protect the ears, chin, neck, and upper chest (Madhloom 1970: 37). Earflaps first appear in the reign of Tiglath-pileser III and become common in later periods. They are first depicted on the helmets worn by the Urartians on Shalmaneser III’s Balawat Gates so it is possible that the Assyrians acquired this element from them. Madhloom hypothesizes, based on the reliefs, that in the reigns of Tiglath-pileser III and Sargon II the earflaps are one piece with the helmet, whereas in later reliefs they are a separate element (37-38). This is based on the assumption that the decorative lines drawn around the base of the helmet actually represent structural distinctions, or conversely, that the lack of these lines means not only a lack of decoration, but a lack of separation.

Under Tiglath-pileser III a new version of the pointed helmet appears. Madhloom described his Type B helmet as being ‘funnel-shaped’ (pl. 6). It consists of a more rounded skull cap with an elongated point. It is possible that either this helmet was borrowed from foreign elements that the Assyrians were coming into contact with during Tiglath-pileser III’s expansion, or that it is merely a development from the Type A helmet. The Type C helmet is simply a more squat version of the funnel-shaped helmet with the point capped by a small button. Some of these helmets, along with some of the Type Ds, have attached neck guards which first appear in the time of Sargon II. A combination of the usually plain funnel-shaped helmet with the ribbing of Type A is what constitutes Madhloom’s Type D helmet which is only illustrated in the frescoes at Til Barsib (Madhloom 1970: 39-40, Thureau-Dangin and Dunand 1936: pl. 51).

Type E are plain round skull caps worn in various periods by either peripheral personnel such as the grooms who lead the horses under Ashurnasirpal II, or those with superior protection
such as some of the archers who fire from behind siege shields under Tiglath-pileser III (Madhloom 1970: 40).

Madhloom divided the crested helmets into five categories, F-J (1970: 40-44). Type F have long crests which curve quite far forward in a circle but do not have any plumes (pl. 28; see also Barnett and Falkner 1962: pl. 35). These appear in the reliefs of Tiglath-pileser III worn by the auxiliaries with the crossed chest straps and the roundels. These helmets carry on into subsequent reigns as the crest supports to hold horsehair or feathers of Type G helmets (pl. 9, 10, 17). The early versions of these are similar in appearance to the Type F crests, but over time the curve becomes less pronounced, more angular and shorter, until it is simply an arc over the helmet. Madhloom suggested that the depictions of the earlier versions indicate feathers whereas the late seventh century examples may in fact hold hog’s bristles (40-41). It is certainly not clear enough in any of the reliefs to make statements about what the crests of any of these helmets may or may not be made of.

Types H and I are both distinguished by the presence of a single centre crest-support. Type H is a round helmet with a fan-like crest which first appeared under Tiglath-pileser III (pl. 29). Type I have funnel-shaped helmets with a crescent-shaped crest of horsehair or feathers which touches the helmet at both back and front (Madhloom 1970: 43).

Finally, Madhloom labelled a helmet with an apparently solid half-moon shaped attachment on the top as Type J. This, like other helmets, appeared during the reign of Tiglath-pileser III worn by auxiliaries (possibly Phrygian), but by the seventh century is part of Assyrian military dress (Madhloom 1970: 43-44).

A quick look at the Hasanlu ivories also provides comparative pictorial material. Both conical and crested helmets were excavated at Hasanlu, yet only the latter are depicted in the ivories found there. All of the warriors depicted wear helmets with flat, feathered tops
(Muscarella 1980: pl. 55A, 59, 61-63), presumably intended to represent the arced skull-cap variety of helmet. There is no sign of the pointed conical type helmet represented on the ivories.

Madhloom (1970: 41-43) also made a quick examination of changes in Urartian helmet design. Helmet crests first appeared in Assyria in the eighth century, but they had been visible in the Assyrian pictorial record as early as the ninth century worn by the Urartians. Shalmaneser III’s Balawat Gates depict the Urartians wearing round helmets with earflaps fitted with a crest in the form of an arc attached directly to the top of the skull-cap. The crests on Urartian helmets under Tiglath-pileser III, while continuing the older type, also sometimes appear as a small top-knot of hair or an ovoid shaped crest. All of these Urartian crest types remain close to the helmet. Madhloom ascribes the later development of a protuberance to which to attach the plume, as an Assyrian adaptation (43).

The Urartian archaeological record tells a somewhat different story, however. Only two crested helmets survive (described above), and if they are genuine they do not fit into the picture from the reliefs. The Mainz helmet is conical and the crest support curves forward slightly and is lined with holes to support a crest (see reconstructed similar example from Nimrud, fig. 6.4). In style it would most resemble Madhloom’s Type G. The closest parallels to the ninth century Urartian helmets would be those found at Hasanlu. Hasanlu provides the only parallels of curved arcs that fit close to the helmet. Are we to assume then, that by the end of the Urartian period, at the time of the destruction of their citadels, that the Assyrian-style pointed conical helmet had entirely replaced the native tradition? It should be noted, however, that some of the Urartian conical helmets with the ‘lightning’ bolt are inscribed with the names of kings of the late ninth century such as Ishpuini. Clearly, the Urartians had a long tradition of these helmets themselves.
VI.3 Helmets: Textual Evidence

The artifactual and pictorial record supplies plenty of evidence concerning pointed conical and crested helmets. The textual record, however, suggests there might have been a third option, helmets made of scales.

The texts from Nuzi list a type of armour called the *gurpisu*. The manner in which it is mentioned suggests that it was not to be considered a substitute for a full suit of armour, but rather, was an addition. Starr suggested that the *gurpisu* could be a detachable skirt (1937: 480), but Lacheman’s suggestion, based on the texts, of some sort of head covering is more convincing. He also demonstrated that it was part of a horse’s armour too, as it is listed with the riding equipment (*paraššannu*): “one pair of horses’ *paraššannu* and their *kurpisu* of bronze” (SMN 616 in Lacheman 1937: 541). But it is Timothy Kendall (1981) who goes beyond the vague possibility that the *gurpisu* was some sort of head or neck protection, and argues convincingly that it is certainly a helmet. With this in mind, he then studied the Nuzi documents to learn about the various helmets discussed in them, especially those made of scales.

The Nuzi texts mention helmets covered in bronze scales (*gurpisu siparri kuršimētu*) only in connection with the coats of scale armour which appear to be used exclusively by the charioteers. Various quantities of scales are listed per helmet: 140, 170, 190, and 200 (Kendall 1981: 209-210). Sometimes it sounds as if the helmet is composed strictly of bronze scales and at other times it is described as covered with bronze scales. Horsehair, leather, and wool were also listed as being employed in its manufacture. Presumably, like the coat of armour, the *gurpisu* consisted of a foundation of fabric or leather with scales attached. It is also possible that it was a garment with an older history of being made simply of leather (Kendall 1981: 210-211; Starr 1937: 480).

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42 Note that the AHw uses *qurpi(s)su(m)* (1965-1981: 929).
The size of scales is never mentioned in connection with the *gurpisu*, suggesting that they were probably all of the same dimensions. Starr suggests that because his first type of scales, with the protruding half-circle (fig. 5.5a), were all of the same size, and could only have been used when sewn onto a stout backing, they may represent the scales of the *gurpisu*, and thus were in fact restricted to this type of armament (Starr 1937: 480). However, the fact that they are not pierced makes their usage for any type of scale armour rather difficult to fathom, and Starr’s suggested lacing method does not seem satisfactory. They also do not continue into the first millennium, whereas the *gurpisu* garment does appear in later texts.

Contra Starr, Kendall would argue that the smallest size scales from Nuzi are those that should be considered to be used in the manufacture of helmets. The texts describe a helmet given to an armourer as weighing 3 minas and 40 shekels, an estimated 1.85 kg. Kendall hypothesizes that this is the weight of the bronze alone, and if it is divided by the possible numbers of scales per helmet, one gets individual scale weights of 13.2, 10.9, 9.7, and 9.2 grams respectively. These numbers are comparable to the weights of the smallest type of scales from Nuzi. The final product, with the addition of the liner, would thus range in weight from 2.72-3.56 kg, heavier than the plain beaten bronze examples, but less than some Medieval or Renaissance helmets (Kendall 1981: 211-214).

Unfortunately, there is no direct pictorial evidence from Nuzi of any scale helmets. The primary pictorial evidence for the armour of this period is from Egypt. Kendall justifies this “since the Nuzi militia was a levy of the king of Arrapḫa, who was himself an eastern confederate of the king of Mitanni, it stands to reason that the armour described in the Nuzi texts would not have been significantly different from that worn anywhere else in Mesopotamia or on its periphery at the same time” (1981: 215). The best possible imagery of the scale helmets at Nuzi are to be found on the chariot panels found in the tomb of Thutmose IV. Here they are
closely associated with charioteers which would fit well with the textual material from Nuzi. Two types of possible scale helmets are illustrated as worn by Asiatics. One variety has large scales that go from the tip of the helmet to the rim, while a second type is depicted as covered with many dots which Kendall interprets as the artist’s attempt to illustrate many small scales (1981: 224).

Unless it can be proven that helmet scales are in some way visually different from those regularly used for armour, we have no way archaeologically to differentiate between the two. It must simply remain as a possibility that some of the smallest scales found at Nimrud could represent scales intended for the manufacture of helmets.

VI.4  Helmets: Summary Observations

The most definitive of the extant Assyrian helmets is the British Museum example (fig. 6.1) with its distinctive bronze inlaid pattern. This, along with examples from Hasanlu, Zinçirli, and countless examples from Urartu clearly show Madhloom’s Type A pointed conical helmet as illustrated in the Late Assyrian reliefs. The reliefs frequently show the repoussé bands around the rims and the frontal arches, but they never illustrate the figural images as incised or inlaid upon the surviving helmets. Dezső suggests that it is possible that paint might have been used on the reliefs to indicate this more detailed decoration (2001: 56).

By comparison, we have seen that the crested type of helmet is poorly represented in the artifactual evidence. The crested fragments from Nimrud reconstructed by Dezső based on several unprovenienced helmet types do not, to me, seem satisfactory. Lachish supplies us with one nice example of an arched crest support, probably comparable to Madhloom’s Type G, but it is unknown whether this belonged to the Assyrians or the Lachishites. Finally, the bronze crested helmet from Hasanlu does not seem to match any of the relief types.
One important observation can be made about the difference between the people wearing crested helmets and those wearing pointed conical helmets in the Late Assyrian reliefs. A clear division seems to be made between Assyrian regular troops and foreign auxiliary units. As seen previously, units such as our possible Qurraean auxiliaries have crested helmets, whereas the corps of professional Assyrian soldiers has the pointed conical helmet (pl. 19). We cannot be sure whether these variations should be considered uniforms for various units, ethnic markers, or both. We also cannot be sure that they reflect the reality in the field, rather than some sort of iconographic message being expressed by the artist. By the very end of the Assyrian period, in the reliefs of Ashurbanipal, we do see some exceptions to this rule. Slabs 1 and 2 of Room XXXIII in the Southwest Palace at Nineveh depict the battle of the Ulai river against the Elamites. Here three ‘Assyrianized’ soldiers can be seen, who still wear the crossed straps and roundels of the foreign auxiliaries, but also wear pointed conical helmets (Nadali 2005b: 223-224). However, these soldiers, even at this late date, are rare exceptions.

A great deal of variation over time seems to appear in the reliefs. Especially in the reign of Tiglath-pileser III when there is much innovation. The eighth century seems to reflect a period of experimentation and mutual exchange between Assyria and her neighbours at least in military matters. Growing conflict led to adopting new military innovations, a transfer which went both ways, particularly between Assyria and Urartu. The Assyrians borrowed the earflaps depicted as worn by the Urartians on the bronze reliefs from Balawat. Urartu in turn borrowed the Assyrian conical helmet but appears to have chosen to decorate it with motifs from a very early period. The Assyrians replaced their early plain helmets with decorated ones which eventually became quite elaborate. At Hasanlu, it is the early plain tradition of conical helmet that appears to be adopted, leading Dezső to believe that they are one of the earliest groups to borrow this helmet type from Assyria (2001: 73).
The artifactual record supports some of the chronology based on the reliefs, but the small quantity of provenienced material makes this comparison difficult. Furthermore, in Urartu, as in Assyria, materials found in palace storage areas or as temple offerings cannot be assumed to be contemporary with the building’s destruction. Offerings may go back for generations, and the items in storage could be materials captured as booty or being saved to melt down. Only a larger corpus of stratigraphically excavated materials can begin to solve problems such as the transition from crested helmets to pointed ones in ninth century Urartu, the seemingly contemporary Assyrian use of both types of helmets but for various units, and the validity and origin of certain helmet shapes such as those posed as the basis for the Nimrud crested helmet.
Fig. 6.1: Iron and bronze helmet from Nimrud with inlaid decoration.
(a – © Trustees of the British Museum; b – Dezső and Curtis 1991: fig. 21)
Fig. 6.2: Nimrud helmet fragments (scale 1:1).
Fig. 6.3: Nimrud helmet fragments (scale 1:1).
Fig. 6.4: Nimrud crested helmet fragments put together (Dezső and Curtis 1991: fig. 16, 20).
**Conclusion**

Life being all inclusion and confusion, and art being all discrimination and selection.

Henry James (1843-1916)

*The Spoils of Poynton* (1909ed.)

The land of Assur was at its height in the Late Assyrian period. Its kings ruled an empire the size and scale of which the ancient world had never seen before. This empire was controlled through centralized administration, localized governments, and fear of the Assyrian military machine. Assyria encouraged such fear by covering the walls of her palaces with images of military power and the dangers that would befall any country which did not accept her yolk and bring her tribute. However, can these images, intended to send a propagandistic message to Assyria’s allies and enemies, be used to uncover practical matters of military history?

The difficulties with this evaluation are threefold: first, there is only a small quantity of excavated Assyrian military artifacts now available for modern research to use to try to corroborate the information on the reliefs; second, the quality of this material is poor; and third, the excavated material available for study is poorly published.

Very little of the Late Assyrian weaponry comes from a safely excavated context. Nineteenth century excavators were generally searching for museum quality works of art, or tablets, without very much enthusiasm for metalwork, unless it was of an artistic quality. The everyday items of life held little of interest or value. Early excavation methods, such as those of Layard at Nimrud, consisted of digging tunnels or trenches that followed along the walls of rooms to expose their orthostats and to get a general plan of a building. This meant that the interior of the room and its contents often were not excavated. When metal artifacts were discovered, their delicate condition was often beyond early conservation methods. Modern
excavations have offset this early pattern somewhat. The BSAI excavations at Nimrud provided the bulk of the material for this study, and it is hoped that future excavations will continue to add to the corpus.

Late Assyrian weapons were made of either bronze or iron combined with perishable materials such as wood, ivory, or leather. Their perishable parts rarely survive in the archaeological record, while the metalwork sometimes fares little better. Iron, in particular, is subject to a destructive corrosion process which can leave literally nothing of the original object. The general weakening of the structure leads to damage and breaking which, along with the corrosion, can make determining the original shape of an object very difficult. Bronze, while not quite so subject to the ravages of time, still suffers corrosion and breakage. It is also put at risk when combined with iron in composite metal artifacts where the two metals react poorly with each other over time. In either case, it is the surface of an object which suffers most, thus losing many functional and technical details.

Finally, even recent excavation reports of Late Assyrian sites have seldom given pride of place to metalwork. Often reduced to appendices or charts, illustrated with no more than a token series of drawings, and seldom photographed, the information that could be gained by a comparison of the work from many sites is lost. Nineteenth century publications are, of course, even more silent on the subject of metal finds. However, even worse than a lack of publication, is mis-publication, often caused by a confusion in the provenience of early excavated materials. I have presented several instances of such muddled museum records in this study. Provenience is always an important issue in any discussion of archaeological material. Unprovenienced artifacts have no context with which to evaluate them, and therefore can provide no date to place them in a chronological framework. Unprovenienced artifacts also pose the danger of being forgeries.
With these difficulties in mind, this study set out: (1) to promote the examination and typologizing of existing Late Assyrian weapons over the analysis of their artistic representations; (2) to re-evaluate the conventional view that the Late Assyrian palace reliefs can be used to date shifts in military technology, or even to date archaeological artifacts; (3) to examine whether the reliefs represent an accurate depiction of weapons of the period; and (4) to question whether these artistic representations are sufficient to make claims about the patterns of military provisioning or tactics. Let me briefly summarize the results pertaining to each of these points.

(1) to promote the examination and typologizing of existing Late Assyrian weapons over the analysis of their artistic representations

The most important goal of this thesis was to study Late Assyrian military artifacts on their own terms, before the study of the artistic representations. Past scholarship has approached the development of Assyrian military equipment through examining the images on the monumental reliefs of the palaces. It was hoped that a study of the artifacts would help to reveal whether such faith in the artwork was justified, and whether the typologies so developed could be considered valid. Several problems have quickly emerged to suggest that the reliefs should certainly not be used alone.

Firstly, questions of materials of manufacture cannot be answered by the art. Bimetallic daggers, spears and helmets, can only be identified in the archaeological record, not in the artistic one. Scales of bronze and iron have been found, but there is also the possibility that many of the coats of scale armour in the reliefs are made of leather scales. It is possible that painted decoration on the reliefs might once have aided in guessing material types, but, if so, this is no longer visible.
Secondly, questions of size, shape and construction cannot always be determined from the reliefs. Armour scales come in a wide range of sizes and patterns of lacing holes punched into them. This suggests complex construction techniques that we cannot begin to guess at from the reliefs. Sword hilts are three dimensional shapes carved into low two-dimensional relief. How are we to differentiate between flat crescents and mushroom shaped hilts? Typologies of swords also tend to focus on the sheath designs illustrated in the reliefs, not the militarily more important issue of the blade. Somewhat more confusing are the inclusion of entire typological groupings like Madhloom’s curved swords (1970: 46-47) which may or may not even exist based on a few questionable illustrations discussed in Chapter 2. Other artifacts seem to be missing from the artifactual record, such as the wide range of crested helmets or the great variety of shield types. In short, the archaeological and pictorial record do not completely connect and any typologies based in the latter without the former are intrinsically flawed.

(2) to re-evaluate the conventional view that the Late Assyrian palace reliefs can be used to date shifts in military technology, or even, to date archaeological artifacts

Dating shifts in military technology based on changes in the artistic record is an unreliable approach. Some types of equipment do seem to show gradual development, such as the shift from rectangular shields used in sieges, to rectangular palisade shields, to palisade shields with angled or curved tops for added defense. But many others do not. Spears, for example, appear in many different forms at many different times in the pictorial record, a state of affairs which is echoed in the archaeological material. Madhloom’s attempts to date the weapons from a typology derived from the reliefs leads to errors. One such example is his suggestion, discussed in Chapter 3, that the grooved collar type of spearhead comes to prevalence under the reign of Sargon II (Madhloom 1970: 53). However, the only archaeological example of these grooved collars is found at Hasanlu, where socketed iron
spearheads are considered to have been borrowed from Assyria. Yet this collar was already present at Hasanlu in c. 800 B.C.E.

Another example of the misinterpretations possible when using artistic representations alone has been given by comparison of the palace reliefs of Ashurnasirpal II with the Balawat Gates of both Shalmaneser III. Earlier studies on the military history of the ninth century used these two representations to argue the change in military equipment between the two king’s reigns. However, the publication of Ashurnasirpal II’s gates for comparison have revealed a more complex situation. Ashurnasirpal II’s siege archers do not have the long coats divided into large squares, or the large rectangular palisade shields of Shalmaneser III’s bronze reliefs. But neither do they have the long coats illustrated with small vertical lines illustrated in Ashurnasirpal II’s palace reliefs. Instead, they do not have any type of armour or shields at all. If we had a wider representation of pictorial artifacts for other kings we might find an equally wide range of military equipment represented.

Despite the differing patterns presumably used to illustrate armour scale in the above example, it is unlikely that these are anything more than changes in artistic conventions. While it is possible that Shalmaneser III’s men are wearing some type of padded armour rather than scale, it is more likely that it is the difficulty of indicating such fine detail that led to the bold representations of squares. Later periods see a wider variety of armour scale patterns drawn, but variations in armour types should not be ascribed to this. Here we see variations of artistic representation being confused for variation of technology by art historical scholars.

(3) to examine whether the reliefs represent an accurate depiction of weapons of the period

A variety of examples illustrate that the reliefs do not necessarily represent an accurate depiction of the weapons of the period. For example, as I have shown in Chapter 6, the existing
remains of standard pointed conical helmets worn by the Assyrians and others are generally decorated. However, the reliefs show only the raised repoussé decoration, not the images incised or inlaid upon them. This is no doubt due to the small scale of such detail, which would have been very difficult to illustrate. This has led to arguments about the veracity of some of these helmets because they cannot be placed within the context of the pictorial record. We cannot know whether such decoration was in fact painted on the reliefs, or simply accepted by the viewer, but without the existing artifacts we would never have known the extent to which these helmets were decorated.

Shields provide us with another example of this difficulty in trusting the representations in the reliefs. Only a few examples of shields still exist, but all have their handles placed directly in the centre. This is confirmed by most of the reliefs, but other alternatives exist, such as the handle-less palisade shield represented on the Balawat Gates, or another palisade shield with its handles placed to the side (pl. 24, 25). These items presumably reflect either the artist’s unfamiliarity with an object, or a desire to more clearly illustrate all parts of the shield. The large round convex shields also raise some questions as the surviving examples are made of heavy bronze, yet shields of this type are illustrated on the reliefs being carried by soldiers in the field who are even apparently capable of swimming with them.

Finally, there are simply questions of artistic license. Arms and armour that are presumably drawn to a smaller scale to fit the space available or drawn in profile to better illustrate a key feature of their appearance, leave us in the dark in regards to their frontal appearance. Shortcuts, such as drawing swords on the far side of the soldier’s body, or shields carried slung across a cavalryman’s back, were used to minimize the features needing to be illustrated. This is sometimes clearly an inaccuracy; such as the depiction of the left-handed swordsmen of Sennacherib, or of archers carrying shields and quivers across their backs.
Additionally, artists may reuse older work. The most obvious example of this is an orthostat from the Southwest Palace of Sennacherib which was recut to carve the image higher when the floor level was raised. Though they would not have been apparent at the time, the remains of the original feet still show at the bottom (pl. 7).

Artistic representations must always be considered a short form. The artists were following a larger plan and iconographical guidelines. They were telling the tale of the great power of the empire and this message of propaganda could affect even military details. For example, the lack of shields and armour may be a psychological message that the Assyrians have no need of such things against weaker opponents. The reliefs therefore must be used carefully when discussing Assyrian military equipment. While they cannot be abandoned, their subjective nature means that they should be used to contextualize existing artifacts, rather than be used to describe artifacts which do not have an artifactual provenience as well.

(4) to question whether these artistic representations are sufficient to make claims on the patterns of military provisioning or tactics

Questions of how the military are provisioned or the tactics they employed in the field are the most difficult to base on the reliefs and should be done only with extreme care. One example for each artifact type will suffice to demonstrate the difficulties.

The ninth century swords illustrated in the Northwest palace at Nimrud are quite long and ornate. However, these are swords carried by the king and high officials in the palace. Can we be certain that such weapons were being carried by the rank and file of the Assyrian military? Their commonplace representation may have been for the glory of Assyrian propaganda, or the ignorance of the court artist to any other types of swords. No swords of this type have been found archaeologically. And yet historians have discussed how the smaller swords both in the reliefs, and excavated from seventh century contexts, indicate that the sword
was now simply a secondary weapon, and that its place on the battlefield had been replaced by
the spear, the bow, and the sling. While this may be true, there is no evidence of the Assyrians
ever using a long sword in battle. Perhaps all that has changed is an artistic convention for how
to represent swords on reliefs.

Spears have been described as being of different lengths at different times in the pictorial
record. Obviously, the length of a spear is a factor of its wooden shaft which has not survived.
But in the reliefs, surely its length is a factor of space. The long spears used by later cavalry
under Sennacherib, therefore, may be more a feature of the narrative style of the artwork than
any change in spear lengths. These nine foot spears, which were supposed to have been in use
from the reign of Sargon II onwards by cavalry, have then been used as proof of the cavalry’s
growing proficiency as lancers. I have argued in Chapter 3 that a horseman without stirrups or
saddle can hardly be a lancer in the true sense of the word, and these cavalry cannot have
accomplished a great deal more than mopping up actions after the enemy had already turned in
retreat.

Battlefield tactics with shields come down to weight, i.e. questions of materials, which
cannot safely be discerned from the reliefs. Shields may be identified as being made of wicker,
leather, or bronze, but the shorthand patterning for these in the pictorial record is not assured.
Too few shields survive to provide information about variables such as the use of shields by
heavy versus light infantry or those used in the field versus those used at court or ceremonial
lion hunts. Even more unlikely, is the fact that the reliefs would suggest that very few Assyrian
troops, besides those participating in sieges, even carried shields.

The question of scale armour versus lamellar armour in the Late Assyrian reliefs was
raised by Robinson (1967: 7-8). Were the Assyrians the first widespread users of lamellar
armour? When did this innovation occur? Which form of patterning for scales represents this
armour? The answer of course is not to be found in the reliefs. A wide range of representations of armour exist and we cannot hope to guess what exactly the artist intended to represent. In the reign of Sennacherib alone, many different patterning techniques were used. Archaeologically, both forms of armour are made of scales. Until more secure finds are made of scale armour in situ, perhaps even with some remnants of their backing material, no sure statements can be made about the specific type of lacing used in the Late Assyrian period.

For helmets, finally, we have the commonplace assumption that crested helmets were used in ninth century Urartu, based on figures depicted on Shalmaneser III’s Balawat Gates, who had long been assumed to be Urartians. These in turn have led to the argument that other figures shown with crested helmets were also Urartians or at least peoples from the northern edges of the Assyrian empire. Yet, we have seen that there are few extant helmets to support this connection, and none of the type depicted on the Balawat Gates. The helmets from Hasanlu provide the closest parallel. This may simply be a reflection of the late period to which all discovered Urartian helmets date, or perhaps the Urartians are not as closely associated with the crested helmet as once thought.

One other element addressed in the Introduction was that of the internationalism of arms which took place over the first millennium B.C.E. We have seen many incidences of borrowing between the Assyrians and their neighbours; for example, at sites in Urartu (helmets and shields) and at Hasanlu (swords, spearheads, helmets), a borrowing which did in fact go both ways, as each nation learned from the other. Under the constant pressure of warfare, armies adapted to new technologies, and these technologies were then carried into new lands by the victorious Assyrians.
However, the Assyrian army also included military units that remained distinct in appearance in the reliefs. These units retained what may be assumed to be culturally specific types of armaments, which over time might have developed into markers of that unit. The most obvious of these were the auxiliaries identified by Postgate as Qurraeans (2000). They had crossed straps and roundels, crested helmets, and wicker shields (round in the early period and later tower shields). The reliefs clearly differentiate these troops from the standard Assyrian soldier, who had scale armour, a pointed helmet and a bronze (or leather?) shield or sometimes no shield at all. The constant pairing of these two opposite figures, especially in the reliefs of Ashurbanipal suggests that this was a very real division in the minds of the Assyrian peoples. How exactly we are to interpret this division by the seventh century is unclear. Whatever separated these auxiliary forces in the first place has gradually faded as they became more Assyrian in appearance. They lose their curly-toed boots and gain Assyrian hair styles. By the end of the Assyrian empire, in the reign of Ashurbanipal, they seem to have been fighting alongside their Assyrian counterparts on equal footing (pl. 19), as well as standing with them on guard during royal lion hunts (pl. 17). The Assyrian army had itself become internationalized in nature, taking in units from throughout the empire and gradually amalgamating them into their military structure.

Military artifacts are not necessarily easier to interpret than the reliefs. In addition to difficulties concerning preservation and quantity of artifacts discussed above, they provide other challenges. A large quantity of the material used in this study was found in the destruction layer at Nimrud. Nimrud was occupied continuously from the ninth century to the seventh century B.C.E., and material found there cannot necessarily be isolated within this time frame. It is assumed that most material found in storage was likely from the seventh century because
utilitarian items are unlikely to have been stored for any great length of time. However, some of the more valuable artifacts could have been heirlooms, and any of it could have been booty or tribute taken from other nations. This problem is difficult to overcome without further excavation revealing more material from well-stratified contexts. However, the purpose of this study was to offer comparisons between the existing corpus of artifactual material and the reliefs, and this can be done even without the ability to pinpoint the dates of individual weapons.

Another difficulty with some of the material concerns the question of whether or not we are dealing with items intended for utilitarian purposes. The bimetallic dagger and large bronze shields from Nimrud may perhaps have had ceremonial purposes that would preclude them from our discussion of military equipment. The same is likely true for much of the inscribed material from Urartu and the bimetallic spearheads from Hasanlu. This problem is one where combining the artifacts with the reliefs provides the best likelihood of discerning which artifacts were for display and which were actual weapons.

Neither the pictorial or artifactual record is as complete as we might wish in order to form a clear image of the development of Late Assyrian military technology. However, it is clear that neither can be studied without the other. History should be studied as a whole, including all facets of information possible. In 1972, J. E. Reade wrote, “it is hoped that the epigraphists who are at present rewriting and re-interpreting [the sources] will bear the evidence of the sculptures in mind (108).” To this we must add that all archaeological evidence, including the artifactual record, must always be included too. For without it, the palace reliefs provide us with a distorted view filtered through the eyes of a court craftsman, and tinged with the propaganda of the empire.

All that I desire to point out is the general principle that Life imitates Art far more than Art imitates Life.

Oscar Wilde (1854-1900)

*Intentions* (1891)
APPENDIX A
Artifact Information

The following charts provide details about the artifacts used in the figures in this study. They have come from a variety of museums and while many have been drawn by the author, many others were only seen in illustrations or photographs for which appropriate credit has been given.

Chart Headings:

**Figure** – The figure number is that referred to in the text.

**Museum Number** – The artifact’s museum number is listed where known. Materials in the British Museum frequently have both a modern tripartite accession number as well as an older catalogue number. The modern number provides easier access to material listed in the British Museum’s searchable online database, but the older numbers are frequently used in publications. Where the older number is commonly used it has been supplied in brackets.

**Excavation Number** – The artifact’s excavation number is listed where known. Artifacts from Nimrud in particular are frequently discussed in publications using their Nimrud numbers. The BSAI excavations used the abbreviation ND, whereas Layard’s material is simply abbreviated with an N.

Both Museum and Excavation numbers can sometimes refer to a collection of artifacts rather than a specific item. This is common with groups of armour scales, but also occurs occasionally with other artifacts such as spearheads.

**Provenience** – The site that an artifact comes from is listed, along with some more detailed information about its findspot if possible.

**Dimensions** – These represent extant remains only and are not an estimate of original size.

**Material** – All of the artifacts listed here are of either bronze or iron. Bimetallic artifacts are listed with the predominant material first.

**Illustration** – Identifies where the image in the figure originated from.

**References** – The references are not intended to be an exhaustive list, only those which proved useful for this study.

**Abbreviations:**

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### Chapter 2: Swords and Daggers

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Abbreviations:

AHw Akkadisches Handwörterbuch
BSAI British School of Archaeology in Iraq
CAD Chicago Assyrian Dictionary
ILN Illustrated London News
OIP Oriental Institute Publications
PIHANS Publications de l’Institut historique et archéologique néerlandais de Stamboul
RIMB Royal Inscriptions of Mesopotamia. Babylonian Periods
RINAP Royal Inscriptions of the Neo-Assyrian Period
SAA State Archives of Assyria
SCCNH Studies on the Civilization and Culture of Nuzi and the Hurrians
TCL Musée du Louvre. Département des antiquités orientales. Textes cunéiforms
TCS Texts from Cuneiform Sources
UMM University Museum Monographs
WVDOG Wissenschaftliche Veröffentlichung der Deutschen Orient-Gesellschaft


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