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JOURNAL



‘Observatorium in Bagdad constructum.’

The observatory of ‘Babylon’ from Ctesias to Louis XVI / *D.T. Potts*

The Material Culture of Early Dynastic and Akkadian Period Conflict:
Copper and Bronze Melee Weapons from Khafajah / *Arthur Stefanski*

Notes from the Field / *Carnets de recherche*

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The Material Culture of Early Dynastic and Akkadian Period Conflict: Copper and Bronze Melee Weapons from Khafajah

Arthur Stefanski
University of Toronto

Abstract

This paper explores the material culture of warfare in Mesopotamia during the Early Dynastic (ED) and Akkadian periods by investigating copper and bronze melee weaponry from ancient Tutub (modern day Khafajah) in the Diyala region. Using the Oriental Institute's Diyala Database, as well as reconstructed plans of Khafajah, melee weapons from Early Dynastic and Akkadian levels are plotted to findspots or loci in order to identify their spatial contexts and distribution. A basic typological classification is devised to examine their morphology and yield insight on developments in warfare. This analysis reveals a number of types of weapons in a variety of social roles in temple, domestic, and burial contexts in the 3rd millennium Mesopotamian city. Increased militarization leading to a warrior culture at Tutub in the EDIII to Akkadian periods is apparent in a proliferation of weaponry in the assemblage, the appearance of objects depicting military scenes and warriors, and the construction of fortifications. Weapons were introduced as grave goods during the late EDIII or the transitional EDIII-Akkadian period, a practice which continued thereafter, demonstrating the development of a local warrior class.

Résumé

Cet article explore la culture matérielle guerrière en Mésopotamie pendant les périodes proto-dynastiques et akkadienne par le biais d'un examen des armes de mêlée, de cuivre ou de bronze, trouvées à ancienne Tutub (Khafadjé) dans la région de la Diyala. À partir de la base de données sur la Diyala de l'Oriental Institute et de plans reconstitués de Khafadjé, les contextes spatiaux et la distribution des armes de mêlée des niveaux dynastiques archaïques et akkadiens sont identifiés en déterminant leurs emplacements et loci. Les armes sont catégorisées selon une typologie simple qui facilite l'analyse des changements morphologiques et fonctionnels. Cette analyse révèle que dans cette ville mésopotamienne du 3^{ème} millénaire, plusieurs armes étaient utilisées dans une variété de rôles sociaux incluant dans les temples, et en contexte domestique ou funéraire. La prolifération d'armes dans l'assemblage des périodes DAIII et akkadienne, l'apparition d'objets représentant des scènes militaires, ainsi que la construction de fortifications suggèrent une militarisation accrue menant au développement d'une culture guerrière à Tutub à cette époque. Les armes sont aussi introduites comme dépôts funéraires pendant le DAIII et la transition DAIII-période d'Akkad, une pratique qui perdure par la suite et reflète le développement d'une classe locale de guerriers.

Introduction

From the 4th millennium BCE, southern Mesopotamia saw the emergence of some of the world's earliest cities. Historical sources from the later Early Dynastic period indicate that these were generally independent city states in competition with one another.¹ Armed conflict between these city states seemingly escalated in the EDIII, and was followed by the large-scale territorial conquests of Sargon and his successors, resulting in the formation of the Akkadian empire, the first centralized territorial political entity to be attested (Cooper 1993; Buccellati 2013; Foster 2015: 80–3). Some of the earliest historical narratives from this period (see Winter 1985; Cooper 1983) and monumental art pertain to warfare, attesting its expanding social significance and impact on historical memories. Iconographic and archaeological evidence shows

that warfare of this period was highly developed, with distinct tactical units on the battlefield: melee-oriented infantry armed with short and long spears, various types of axes, daggers, sometimes with shields, and often wearing helmets² or caps,³ light infantry with slings, bows,⁴ and throwing spears;⁵ and war wagons armed with quivers of throwing spears.⁶ According to Westenholz, the Akkadian empire established “dominion based on military power” (1999: 98). Analysis of pictorial evidence reveals that Akkadian armies were equipped differently and may have used tactics unlike those of their southern Mesopotamian counterparts (Postgate 1994: 246). Ranged weapons were featured more prominently, with Akkadian soldiers typically depicted carrying bows, broad-bladed battle axes,⁷ and spears (Westenholz 1999: 65–6).

Sources like the Early Dynastic “prisoner plaque” from Kiš, listing the capture of tens of thousands of prisoners (Steinkeller 2013: 133), and inscriptions of the Akkadian king Rimush detailing tens of thousands of casualties and captives in battles (Frayne 1993: 41–52), even if likely to be hyperbolic, provide evidence for the scale of battles in the 3rd millennium BCE. Widespread use of metals allowed for (perhaps significantly) larger numbers of troops in the field, and both the standardization of equipment and textual evidence suggest that armies were centrally organized, especially with recruitment of soldiers; they may have also relied on conscription during the Early Dynastic and Akkadian periods (Sasson 1969, Postgate 1994: 241–42, Westenholz 1999: 68). Destruction levels at various sites, royal inscriptions detailing conflicts, and depictions of piles of corpses and injured captives reflect the devastating consequences of organized violence.

The majority of metal weaponry was likely made of arsenical copper in the first half of the 3rd millennium BCE. Tin bronzes, along with arsenical bronze alloys with a higher percentage of arsenic, are more common towards the middle of the 3rd millennium, which corresponds to the EDIII (Moorey 1985: 250–54; Malfoy and Menu 1987: 356–59; Potts 1997: 167; De Ryck et al. 2005: 263–66). Since copper and bronze can be

cast, the production of weapons on a large scale would have been possible, allowing militaries to equip more troops than would have been possible without such technological advances. Weaponry of 3rd millennium BCE southern Mesopotamia has numerous parallels in surrounding regions, revealing the spread of weapon-making traditions and local developments (Watkins 1982).

Even with the development of tin alloys, arsenical copper did not fall out of use, as evidenced by its presence among samples from the EDIII Royal Cemetery at Ur (Muhly 1973: 129) and the EDIIIb Cemetery A at Kiš (Moorey 1985: 251). Because southern Mesopotamia itself is devoid of these raw materials, they were imported from various areas.⁸ According to Moorey (1985: 242–54), Diyala and Kiš EDI levels seem to have only copper and arsenical objects. Therefore, in the wider absence of chemical analysis,⁹ objects from the EDI can assumed to be of copper, with small percentages of tin or arsenic, while later objects contain a mix of bronze and arsenical copper. The improved edge retention, higher tensile strength, lower brittleness, and increased hardness resulting from the tin and arsenic content would have been an obvious advantage, and must have been rapidly adopted, as long as there was access to materials.¹⁰ As Molloy points out, weapons facilitate a variety

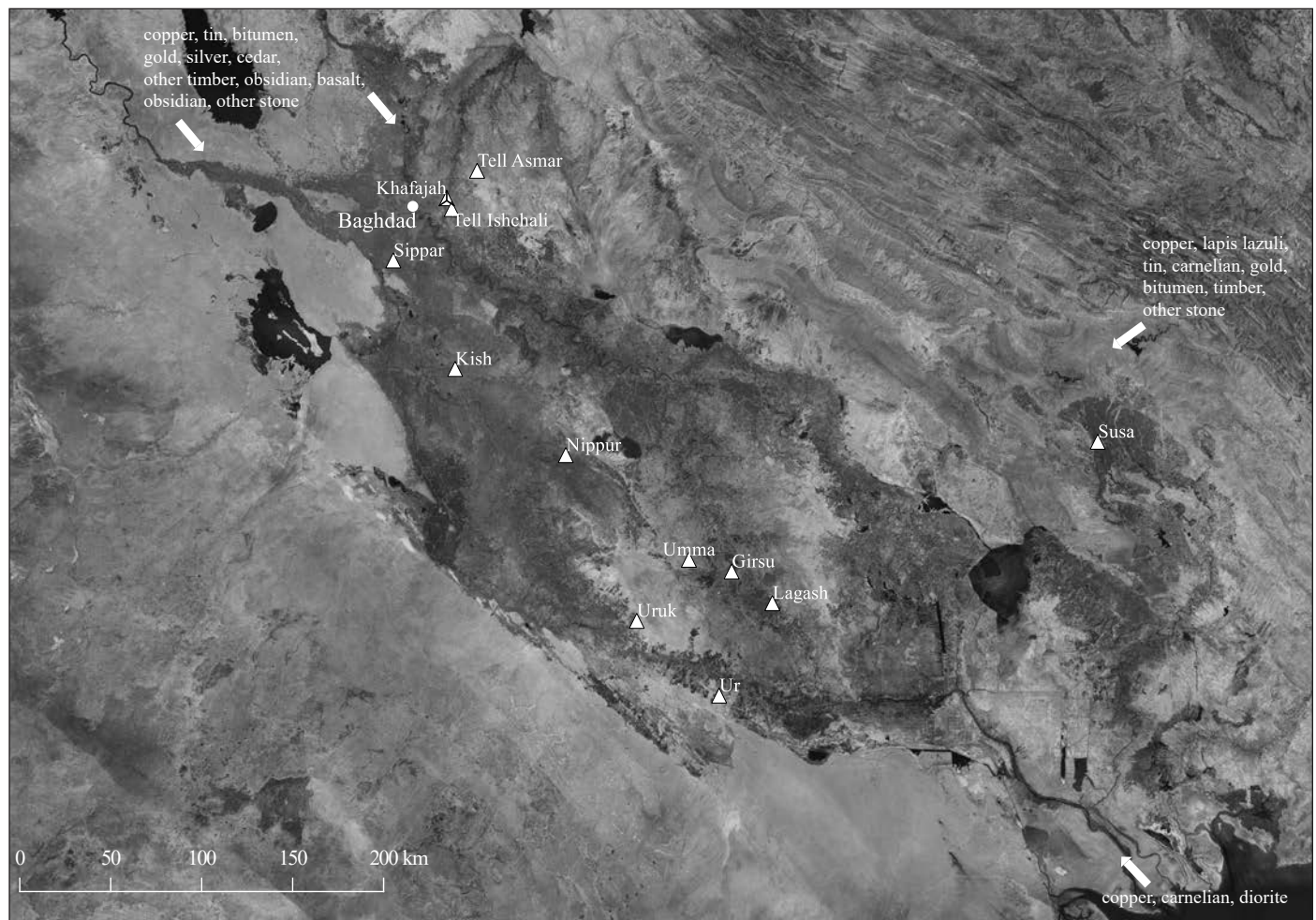


Figure 1. Map showing Khafajah and other contemporary sites.
General directions of trade routes for materials mentioned in this study are shown.

of social activities, bringing together miners, smelters, traders, smiths, warriors, and others (2018: 200). It can thus be expected that these networks of trade, production, and end use increased in scale and social importance in an era of frequent conflict, as in the EDIII and Akkadian periods.

Archaeological Context

Texts from the Isin-Larsa period temple of Sin at Mound D identify Khafajah as ancient Tutub (Harris 1955: 39–40). The site is located south of the Diyala river, just east of modern-day Baghdad (Fig. 1), and was excavated by the Oriental Institute's Diyala Expedition in the 1930's. Its archaeological levels at Mound A (Fig. 2) cover most of the 3rd millennium, spanning the Jemdet Nasr, Early Dynastic and Akkadian periods, with wide exposures of domestic (referred to as "Houses"), cultic, and public areas. The datasets resulting from these excavations were so rich that the primary publications, in spite of their scope, could provide only a cursory overview of the excavated material. The present study exploits the rich excavation records that have now been made available online in the Diyala Database, and allow for a full archaeological contextualization of the objects.¹¹ Although relatively large quantities of weapons were excavated from levels dating to the 3rd millennium at numerous Mesopotamian sites, and despite the significant metallurgical and military developments of that period, there have been surprisingly few studies on this body of data, compared with, for example, numerous typological and scientific analyses of weaponry from the European or Chinese Bronze Ages.

In the following section, all weapon finds will be reviewed in their association with architectural remains, archaeological levels, and with historical periods. Full descriptions of the objects, as well as the contexts in which they were found are provided. Comparanda from contemporary sites are presented, and the functional typologization and dating of weaponry at Khafajah will be discussed, partly revising those presented in previous literature, including the original excavation publications. Following this detailed review of the evidence, the weapons will be positioned in their broader historical and social contexts of use.

Chronological Phasing of Khafajah

The excavators of Khafajah ascribed the earliest levels (Sin I-V, Houses 12-11) to the Protoliterate period (Delougaz et al. 1967: Table III). More recently, a revised dating of some of these levels to the EDI has been proposed (Porada et al. 1992: 98, Fig. 4). The remainder of the archaeological levels at Khafajah fell into a tripartite division of the Early Dynastic (EDI, EDII, and EDIIIa-b) with the Temple Oval III continuing into the "Proto-Imperial Period", and the foundation of a large building in the north part of Mound A referred to as the

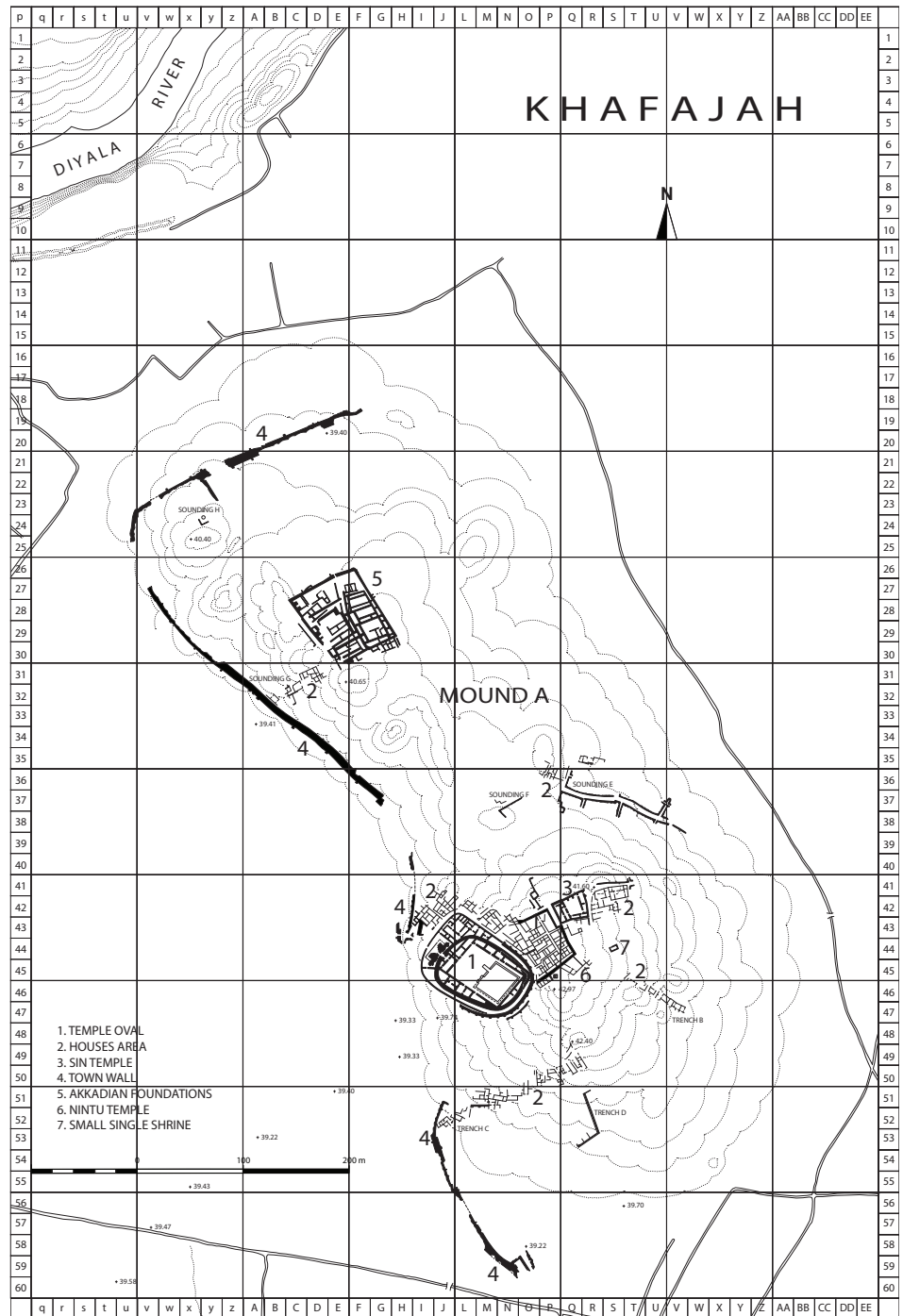


Figure 2. Khafajah Mound D (after Delougaz et al. 1967: Plate 1).

“Akkadian Foundations”. However, subsequent re-assessments have revised this chronology. Porada et al. (1992: 98, Fig. 4) reject the identification of an EDII phase, replacing it with “late EDI/EDII”, a revision which is followed in this study. Gibson redates Houses 1, Oval III, and a number of graves to the early Akkadian period based on pottery correlates and inscribed objects (1982, 2011: 83), while McMahon identifies pottery types from Houses 2 and 1 as correlating with the EDIII/Akkadian transition (2006: 75, Pl. 105). However, I argue that the late Oval II and Houses 2 should be firmly placed into the Akkadian period (see below). The chronology and periodization of Khafajah used in this study is presented in **Table 1**. Available textual and archaeological sources indicate that the core area of the Akkadian empire was in the Diyala region (Porada et al. 1992: 112; Foster 2018: 31, 53), thus, Tutub probably fell under Akkadian control early on in Sargon’s reign. Indeed, the apparent damage to the outer wall of the late Oval II and an ash layer below Houses 2 and Sin Temple X at Khafajah suggests some evidence of a battle during this time. This makes it an ideal case study for assessing the social life of weaponry at a time when it proliferated in quantity and gained social importance.

Typological Considerations

The classification of objects used for this study generally follows the categories utilized in the Diyala Database and other existing classifications (i.e. the socketed battle axe of the Early Dynastic III). Creating a more systematic typology of melee weapons in the Khafajah assemblage that solely relies on the online Diyala Database is fraught with problems. Finds were recorded with various degrees of accuracy; some objects were photographed and recorded in detail, while others were only quickly sketched in the field register and often did not make it into museum collections. Classifying weapons based on fragments also poses difficulties. Varying types of blades can be attached to a wide variety of handles, and functional differences between a knife, a dagger, a short spear, or a polearm may not necessarily be reflected in the form of the blade itself, particularly if a socket or tang is not preserved.

A relatively small quantity of finds, but of a fairly rich typological variety, makes up the assemblage of melee weapons and tools discussed here (see **Tables 2 and 3**). Comparanda from other sites will be provided for some of the objects, although these are by no means exhaustive. Axes are attested in a number of forms, including socketed battle axes of the type seen on numerous artifacts¹² dated to the EDIII. Adzes have a blade edge perpendicular to the handle. If they were used as tools, they were probably used for hoeing, rather than woodwork, as quality wood is scarce in Mesopotamia; but it is also likely that the ones discussed in this study were weapons or “transverse axes”, as classified by V. Gordon Childe (1930: 72). Daggers have been distinguished from spearheads by the presence of riveted tangs or some other attachment to a short handle, and have symmetrical blades with edges of varying degrees of convexity ending in a point. Spearheads come in a wider variety of sizes and forms. These range from very small points, which may be projectile points, to larger leaf-shaped

spearheads, and narrower spike types. All complete spearheads have narrow tangs of varying lengths. It should be mentioned that these typological differences may be incorrect as some of the objects classified here as spearheads may have been in fact daggers or small knives with a short handle just below the blade. Nonetheless, the distinction was maintained for the sake of consistency and comparison with older typologies. Finally, there are a number of point fragments, some of which may be chisels rather than weapons, and two large curved blades, which are most likely agricultural implements rather than melee weapons, but have been included here notwithstanding. Mesopotamian warfare in the 3rd millennium BCE involved a diverse variety of materials and weaponry, evident in the non-metal weapons in the assemblage: large numbers of stone maceheads, stone arrowheads, clay sling balls, stone axes, and other lithics. However, the present study is restricted to metal weaponry.

Assessing which objects are tools and which are combat weapons poses challenges. Purpose of use can partly be answered by analyzing the morphology of objects, and comparing forms to artistic depictions of warriors and warfare, but the multifunctionality of any object should be emphasized, even when there are direct correlates with artistic depictions of military scenes. A functional weapon designed for combat can be used for non-military purposes: worn or displayed as a status symbol, carried by individuals for self-defence, created specifically to be included as a grave good or as a votive object in a temple, or stored for an emergency but never used in a violent situation. An object designed for quotidian use as a tool can serve as an improvised weapon, with varying degrees of effectiveness. Even if a weapon was designed specifically for combat, combat itself would only encompass a small part of its use life cycle.¹³ These objects had a complex social existence and significance, and their usage was fluid.

Sin Temple Level III (EDI)

The reconstruction of plans from Khafajah allows for a relatively detailed analysis of the spatial context and distribution of the artifacts in this study (see **Table 2** for a list of all objects discussed). The earliest copper melee weapon (Kh. VII 100) uncovered at Khafajah was found in locus Q42:26 in the Sin III level (**Fig. 3**), which probably dates to early EDI (Porada et al. 98, Fig. 4). Sin III predated the Houses 12 architecture according to the excavators, and may have been contemporary with the fragmentary architecture below Houses 12. The field register notes the presence of bitumen on this well-preserved blade, which may have been used as a binding material for the haft. The blade is symmetrical and has straight edges tapering to a rounded point. The rounding does not appear to have been caused by extensive wear; rather, it can be assumed that this was a weapon intended to cause only cut wounds by thrusting or slashing. The object was found in locus Q42:26, a room next to the altar in the Sin Temple III cella, which also contained various pottery vessels, cylinder seals, pendants, beads, and other decorative items (Delougaz and Lloyd 1942: 137–38).

Period (Middle Chronology Dates)	Sin Temple	Houses	Small Temple in O43	Nintu Temple	Temple Oval	Akkadian Foundations Area
c. 2254-2150	Early-Late Akkadian	X	1		III	Akkadian Foundations
c. 2334-2254	Early Akkadian		2		Late II outer buttressed wall	domestic architecture below
	Late EDIII/transitional		ash	X?	ash/debris	?
c. 2600-2334	EDIII	IX	3	IX	VII	II
c. 2700-2600	Late EDI/EDII	VIII	4	VIII	VI	I
			5	VII	V	
c. 2900-2700	EDI	VII	6	VI	IV	
			7	V	III	
			8	IV	II	
			9	III	I	
			10	II		
			11	I		
			12			
			13/below 12	Isolated brickwork		
c. 3100-2900	Jemdet Nasr	II				
		I				
		Debris				

Table 1. Chronological Table of Khafajah excavation areas. Based on Gibson (1982: 537, 2011: 83) and Porada et al. (1992: 98), and revisions to the typology as discussed in the paper. Architectural breaks and transitions between periods should be understood as more ambiguous than shown here.

Find No.	Excavation Area	Level	Locus	Arch. Context	Object Type	Description	Dimensions (h x w x t) (cm)	Museum No.
Kh. VII 100	Sin	Sin III	Q42:26		dagger	w/bitumen haft, rounded point	26.5 x 5	OI A21372
Kh. IV 345	Sin	Sin VIII	R42:2		adze	socketed	20.0 x 6.9 x 4.3	OI A12348
Kh. III 365	Oval	Oval I	L43:7	House D	axe		18.2 x 5.6 x 0.7	IM 15510
Kh. I 524	Oval	Oval I	L43:9	House D	spearhead		19.0 x 3.5	
Kh. IV 24	Oval	Oval I	M45:2		spearhead	long tang	22.5	
Kh. II 153b	Oval	Oval I or II		locus unknown	spearhead	fragment	4.0 x 1.5	
Kh. II 68	Oval	Oval I or II	K45:2		blade	poss. tang, or chisel fragment	6.0 x 1.8	
Kh. II 209b	Oval	Oval I or II	L46:4		dagger		13.0 x 2.9	
Kh. I 121	Oval	Oval I or II	M44:4		adze	fragment	6.0 x 4.0	
Kh. II 248	Oval	Oval I or II	M44:4		spearheads			
Kh. III 158	Oval	Oval I or II	M45:2		point	fragment	6.3 x 1.0	
Kh. IV 408	Oval	Oval I or II	N47:3		spearhead?	long bent tang	23.0 x 3.5 x 0.2	OI A12349
Kh. II 101	Oval	Oval I or II	O46:1		blade	w/ traces of wood in handle		
Kh. VIII 198	Nintu	Nintu VII	Q45:7		dagger	tang w/ 3 linear rivets	19.2 x 3.6 x 0.8	IM 41037
Kh. IX 214	Nintu	Nintu VI		locus unknown	spearhead	long tang, thin blade	22.3 x 4.9	IM 42533
Kh. III 759	Houses	Houses 4	K42:11		spearhead	w/ grooved ricasso	38.5 x 3.0 x 2.0	OI A11623
Kh. V 39	Houses	Houses 4	N43:15		dagger	partial tang, 3 rivets in triangle	19.4 x 4.1	
Kh. V 33	Houses	Houses 4	P43:24		spearhead		9.2 x 2.3	
Kh. IX 209	Trench C	Houses 3	O50:1	Grave 146	dagger	tang w/ 2 linear rivets	17.6 x 3.6 x 0.6	UM 38-10-073
Kh. III 1290	Houses	Houses 3	J42:4		dagger	partial tang, 3 rivets in triangle	6.0 x 4.0 x 0.4	
Kh. III 1109	Houses	Houses 3	L42:5		axe	socketed	9.5 x 5.6 x 1.9	IM 15489
Kh. V 37	Houses	Houses 3	O43:14		point	poss. chisel	10.5 x 3.5	
Kh. III 904	Oval	Oval II	K45:1		point	poss. chisel	8.0 x 1.8 x 0.5	
Kh. I 372	Oval	Oval II	K46:4		axe		9.0 x 5.3 x 1.3	OI A9245
Kh. III 32	Oval	Oval II	O45:2		axe	fragment	3.1 x 1.5 x 0.3	
Kh. III 715	Houses	Houses 2 or 3	J42:2	Grave 126	dagger	w/handle	22.0 x 4.5 x 1.2	OI A11613
Kh. III 722	Houses	Houses 2 or 3	J42:2	Grave 126	blade/sickle	curved	23.0 x 6.0 x 1.3	
Kh. I 46	Houses	Houses 2 or 3	R45	next to Grave 165	spearhead		22.3 x 8.2	OI A9228
Kh. VIII 165	Trench B	Houses 2 or 3	T45:1	Grave 157	mini dagger	tang w/rivets, silver handle	13.5 x 3.3 x 2.0	UM 37-15-076
Kh. IV 376	Sin	Sin X	R42:18		axe	socketed	11.7 x 3.0 x 0.2	
Kh. IV 377	Sin	Sin X	R42:18		spearhead	pointed, tang	11.0 x 1.7 x 0.2	
Kh. III 737	Houses	Houses 2	K42:9	Grave 167	axe	w/wood handle	13.5 x 8.5	OI A11586
Kh. III 740	Houses	Houses 2	K42:9	Grave 167	dagger		19.0 x 4.2 x 1.0	
Kh. III 26	Houses	Houses 2	M42:1		axe		5.6 x 3.0 x 1.0	
Kh. III 355	Houses	Houses 2	O44:11		dagger	w/frag handle	24.0 x 3.5 x 0.5	IM 15508
Kh. III 1253	Houses	Houses 2	P43:10		blade fragment		4.9 x 3.4 x 0.5	
Kh. IX 28	Houses	Houses 2	S42:1	Grave 144	dagger	tang w/2 rivets, cloth adhering	15.7 x 3.7 x 0.5	UM 38-10-074
Kh. NR:1047	Houses	Houses 2	S42:1	Grave 144	point			
Kh. VIII 167	Trench A	Houses 2	V44:2	Grave 156	dagger	tang w/2 rivets	15.4 x 2.6 x 0.3	UM 37-15-077
Kh. I 111	Oval	Oval III	M44:4		spearhead		15.7	OI A9247
Kh. III 609	Houses	Houses 2, above	K42:5	Grave 168	dagger		17.5 x 3.0 x 0.3	
Kh. III 254	Houses	Houses 2, above	O42:3	Grave 148	dagger	point	6.9 x 2.1 x 0.1	
Kh. I 55g	Houses	Houses 2, above	R45	Grave 165	dagger	w/frag handle	28.0 x 4.2	OI A9229
Kh. I 55i	Houses	Houses 2, above	R45	Grave 165	adze	socketed	11.0 x 5.0	OI A9230
Kh. III 827	Houses	Houses 1	P43:3		point		4.1 x 1.7 x 0.1	
Kh. I 203	Houses	Houses 1	P44:10		dagger	w/frag handle	11.5 x 3.7 x 0.6	OI A9263
Kh. I 141	Houses	Houses 1	P44:2		spearhead	spike-shaped	21.8	OI A9233
Kh. III 354	Houses	Houses 1	Q44:12		blade/sickle	curved with a long tang	50.0 x 9.5	IM 15511
Kh. III 49	Houses	Houses 1	Q44:4		blade		6.1 x 2.4 x 0.3	
Kh. III 44	Houses	Houses 1	Q44:5		dagger	point	8.5 x 2.5	

Table 2. Table of all weapons; data from the Diyala Database.











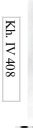



























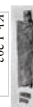




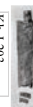




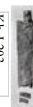











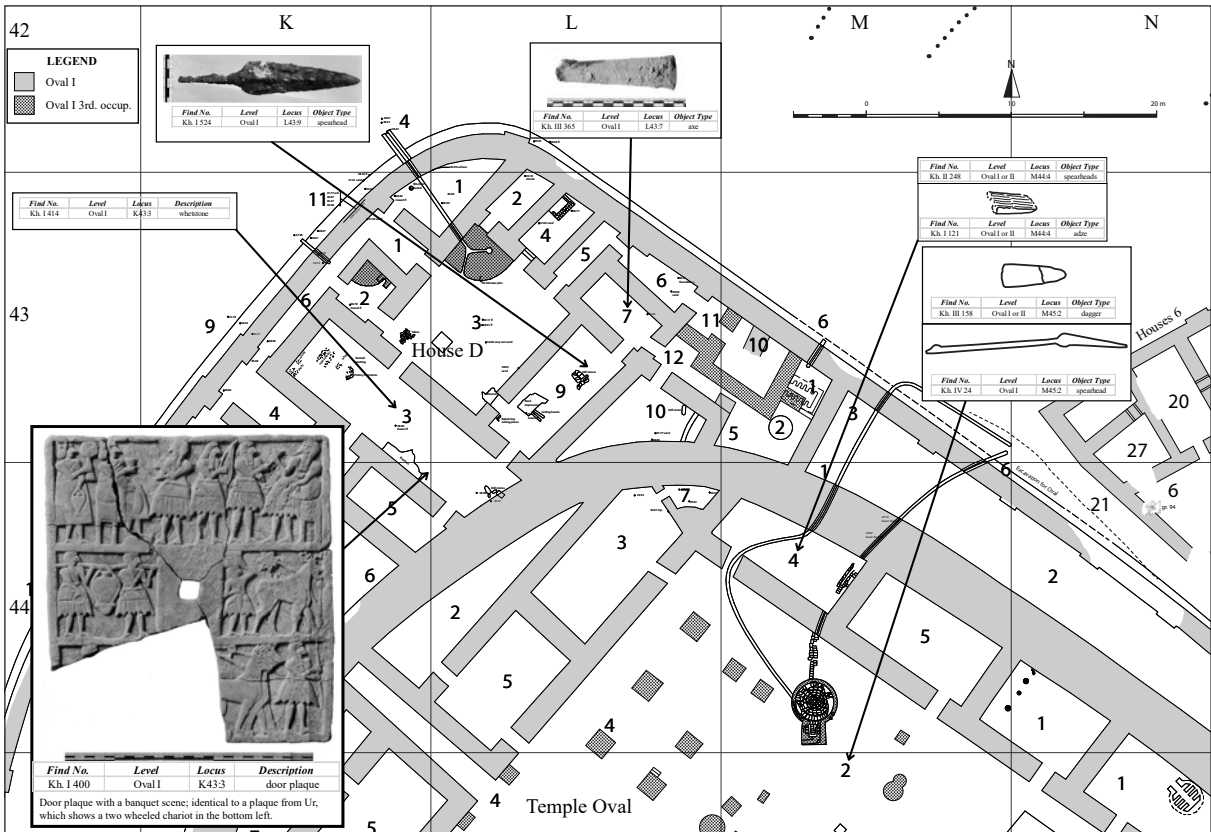
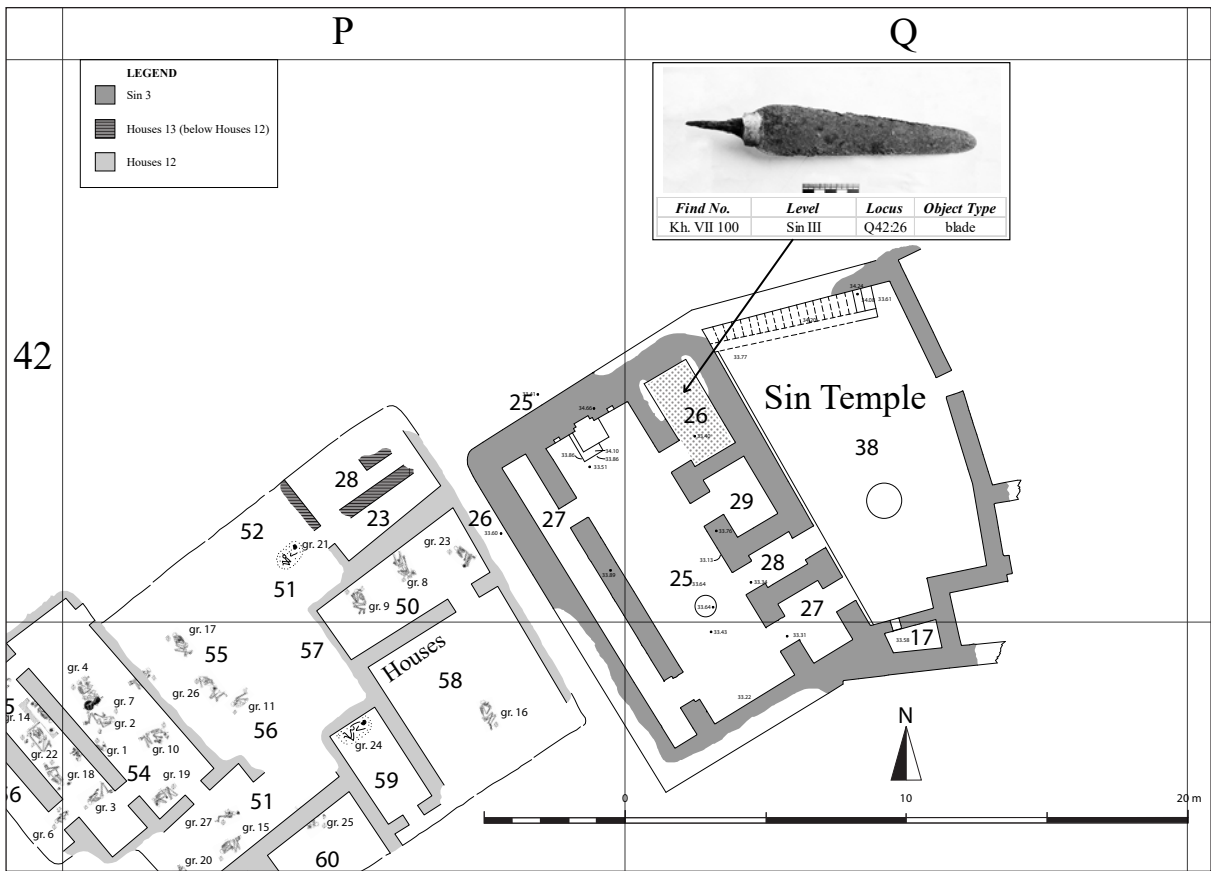
Period	Object type									
	Spearheads		Points		Daggers		Axes		Adzes	
Early ED I										
										
Late ED I/ED II										
										
ED III										
										
Late ED III/Transitional										
										
Early Akk.										
										
Late Akk.										
										

Table 3.
Serialized table of weapons from Khafajah. Objects are scaled; some photos were mirrored to have the blade facing to the right for easier comparison of forms. Photos of objects from the Diyala Database; sketches are from the field registers.



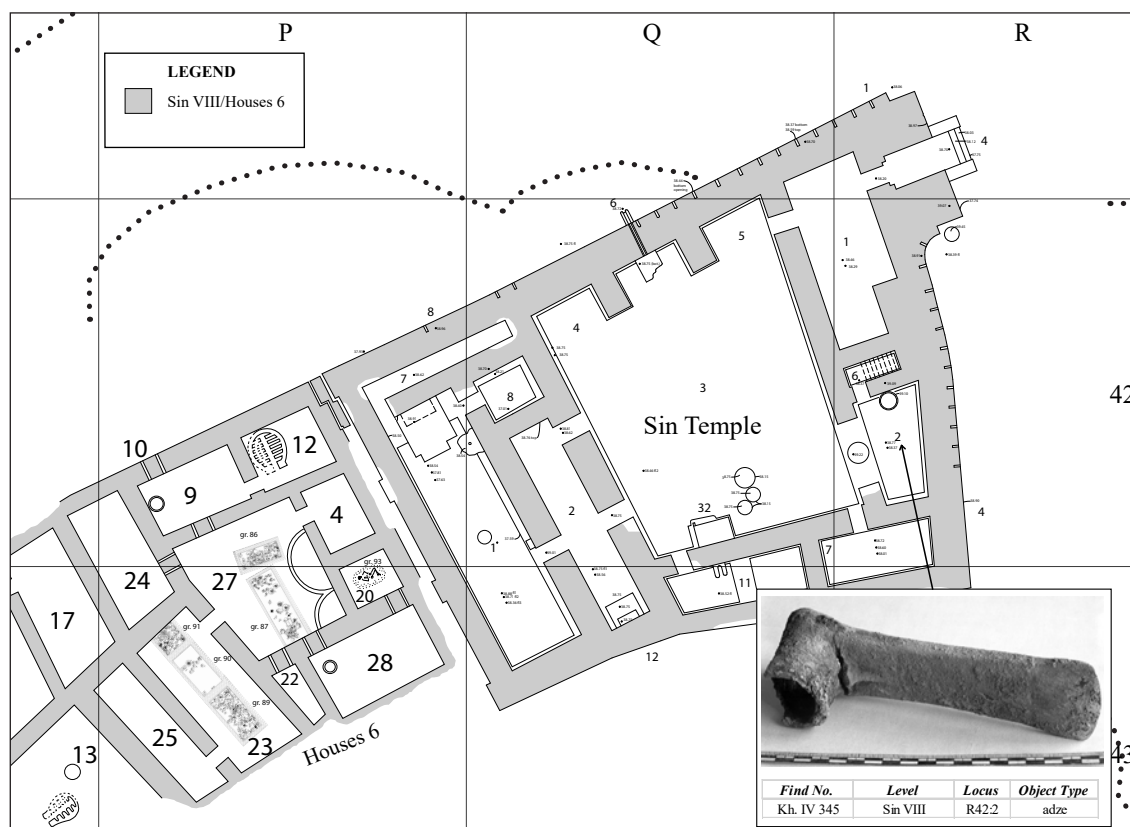


Figure 5. Plan of the Sin Temple VIII, contemporary with Temple Oval I and Houses 6. Images from the Diyala Database.

The Temple Oval I Complex (late EDI/EDII/Early EDIII)

The construction of the monumental Temple Oval I complex, as well as the related Houses 6 and Sin Temple VIII levels, represented a significant architectural project at Tutub. The builders cut into Houses 7 when they excavated the sand base of the Oval I, which correlates with numerous architectural changes in Houses 6, the domestic architecture contemporary with Oval I. This level has been dated to the late EDI/EDII, following Porada et al (1992: 98) and Evans (2007: Table 6). The large Oval I complex consisted of an outer wall, with a courtyard and the “House D” complex¹⁴ within the outer ring, as well as an inner walled area with a thicker wall. The temple platform was located within this inner walled area, surrounded by auxiliary rooms.

Two weapons were present in House D from the Oval I levels (Fig. 4). A leaf-shaped spearhead Kh. I 524 with a long tang and a midrib was located next to millstones in L43:9, comparable in form to spearheads from Ur (Woolley 1934: Pl. 227 types 5 a, 5 b, and 5 c). An axehead (Kh. III 365) was found in L43:7, a room north of L43:9. The lack of an eye or socket means that this axehead would have probably been fastened to a handle with cordage. This axe bears similarity to Type S. 20 from Ur (Woolley 1934: Pl. 226) as well as an axe from Grave 89 at Abu Salabikh (Martin et al. 1985: Fig. 143). In addition to these objects, the presence of a whetstone in K43:3 suggests that weapons and metal tools were used and actively maintained in House D. Of further interest is a stone door plaque depicting a

banquet scene, excavated from locus K43:3 in House D. The right side of the middle register depicts a man standing behind a ram, holding what appears to be a dagger facing downward, perhaps signifying that this was a sacrificial animal. It is thus possible that some of the weapons found in temple contexts at Khafajah (and elsewhere in southern Mesopotamian sites) were used for animal sacrifices. The bottom register is broken, but a fragment of an identical stone plaque from Ur shows equids pulling a two wheeled cart which contains a quiver of javelins and perhaps axes, flanked by men carrying spears (Woolley 1934: Pl. 181). Besides the objects from House D, there was also a spearhead (Kh. IV 24) found in locus M45:2, within the inner Oval. This spearhead had an angular blade and a very long tang, approximately twice the length of the blade itself.

Sin Temple VIII (EDIII)

The major architectural changes associated with the construction of the Temple Oval at Khafajah did not manifest as strongly in level VIII of the Sin Temple (Fig. 5), which is likely to have been rebuilt contemporarily with Houses 6 and Oval I. The layout of the temple complex at this time was a continuation of the basic plan from Sin Temple 6, with a number of architectural modifications (Delougaz, and Lloyd 1942: 52–61). The complex was composed of a bipartite temple with a bent access cella, and a central courtyard with auxiliary rooms in the southeast corner. An adze (Kh. IV 345) was found in locus R42:2 within one of these rooms. This adze had a

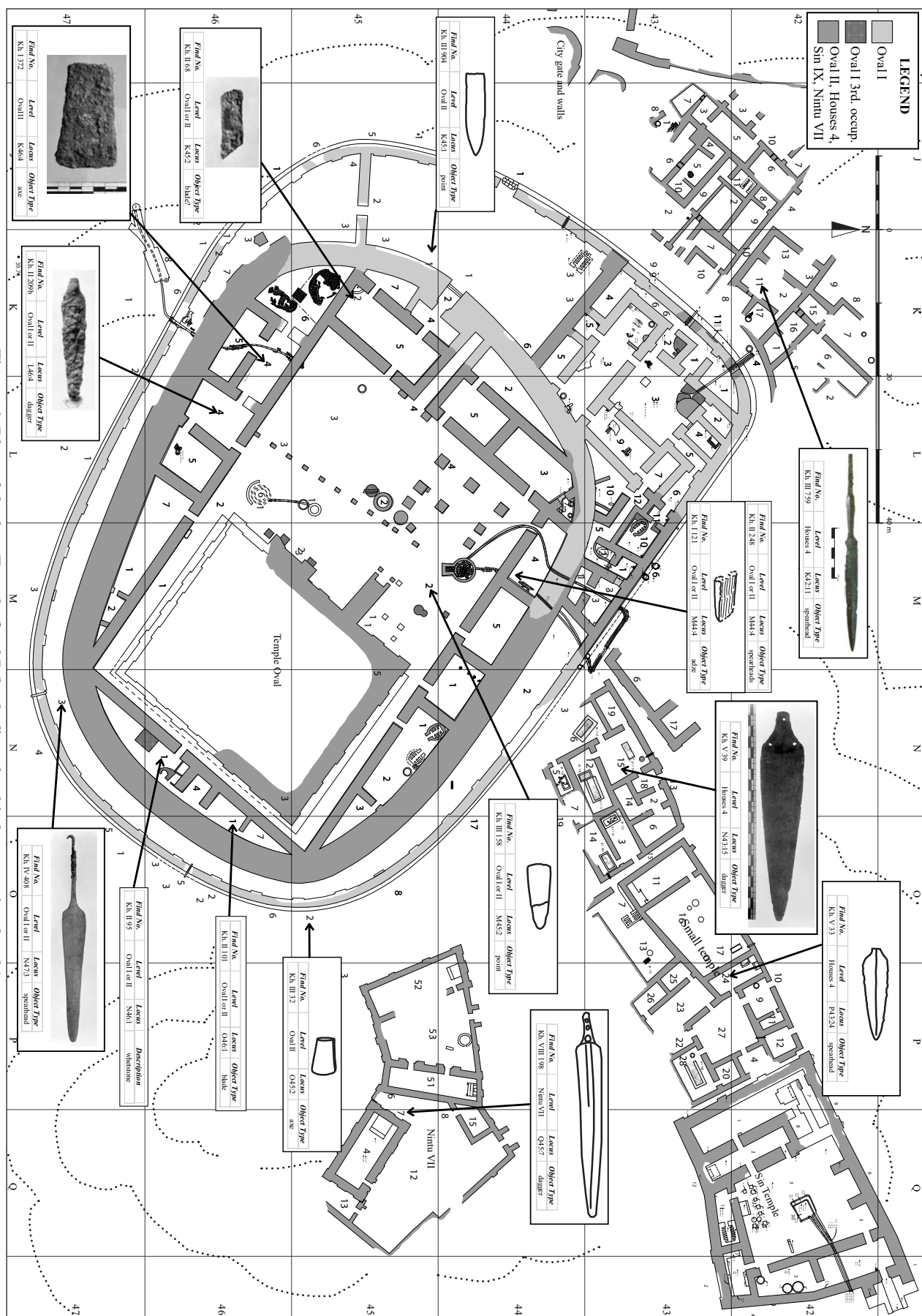


Figure 6. Plan of the late Temple Oval I (including the third occupation levels), the Ninu Temple VII, Houses 4, and Sin Temple IX. Images from the Diyala Database.

downward sloping blade which flared out towards the end, with a relatively large D-shaped socket, broken where it met the blade, and displays some similarity to adzes from Ur (Woolley 1934: Pl. 229; adze types 1 and 3).

Oval I or II

A number of objects were dated to either the Oval I or II levels (**Figs. 4 and 6**). Object Kh. IV 408, probably a spearhead with a thin tang with a hooked end, was found in locus N47:3 at the southern end of the outer ring of the Oval. The blade has a slightly raised midrib and a rounded point, with wide shoulders and a concave edge that narrows and straightens towards the end of the point; it bears a resemblance to spear type 6 from Ur (Woolley 1934: Pl. 227). Additional objects were unearthed within the inner ring of the Temple Oval, including a fragment of a blade or part of a chisel (missing its point) found in K45:2, and a dagger (Kh. II 209) discovered in L46:4, in a room south of the main inner courtyard; the latter has a shoulder and partial tang, but it is too corroded to identify any rivet holes. A point fragment (Kh. III 158) was found in the inner courtyard, along with additional objects located in a room in the north of the inner courtyard: multiple spearheads (Kh. II 248) which were not sketched or photographed, and a fragment of what appears to be a small adze blade (Kh. I 121), of which only a field register sketch exists. A blade (Kh. II 101) was located in a room east of the temple platform, but was not sketched; the field register notes that there were traces of wood in the handle. A whetstone located nearby suggests edge maintenance activity in that area. A small point (Kh. II 153b), perhaps a javelin point or an arrowhead, was ascribed to either Oval I or II, but no find spot was provided.

Three objects were clearly dated to Oval II. The first is a fragment of a point (Kh. III 904) from K45:1, located just southwest of the entrance to the inner oval, which may be a chisel or the endpoint of a dagger. The latter possibility can probably be ruled out due to the straight edges culminating in a triangular point, a shape unlike other daggers from Khafajah and other contemporary sites. Additionally, there were two axes: a wedge shaped axehead (Kh. I 372) in K46:4, a room to the south of the inner oval courtyard, and Kh. III 32, possibly a small axehead fragment uncovered outside the outer wall of the Temple Oval.

Nintu Temple VI-VII (EDIII)

Seven levels from the EDI to the end of the EDIII were identified in the Nintu temple (**Fig. 6**), but only the plan of the latest level (VII) has been published. Two weapons were found in the Nintu Temple area, a dagger and a spearhead, but only the locus of the former was recorded. A spearhead (Kh. IX 214) from Nintu level VI (specific locus unknown), has a broad blade with slightly convex sides, a rounded point, and a thin triangular tang, similar to type 5 c from Ur (Woolley 1934: Pl. 227) and a spearhead (Ag. 36: 239) from the Shara Temple at Tell Agrab. The dagger (Kh. VIII 198) was found in Q45:7 from Nintu VII, and has a central midrib and a partial tang with three rivets arranged linearly. This is similar to the tang of a dagger from

the Ur cemetery (Woolley 1934: Pl. 228, type 5 b, although with a different blade). Other comparanda include daggers found in the Temple of Ishtar at Mari (Parrot 1966: Pl. LXIV, 601) as well as one from a level XIV grave at Nippur, with an identical blade, but four rivets instead of three (McMahon 2006: Pl. 162: 2). This is the earliest certain example of a dagger with a riveted tang excavated at Khafajah, and the short length of this tang suggests that it would have only partially extended into the grip. The central midrib blade type is an earlier development at the Ur cemetery according to Watkins (1982).

Houses 4 (late EDIII)

The late EDIII archaeological levels at Khafajah provides the earliest examples of weapons in domestic contexts with three objects discovered in the houses located north and east of the Oval II. The Houses 4 level (**Fig. 6**) is contemporary with the late Oval I and the Sin Temple IX. This area can be considered part of an elite temple neighbourhood due to its location within the temple district. In the domestic area between the Sin Temple and the Temple Oval, a small spearhead missing a tang (Kh. V 33) was found in P43:24. The sketch of this object depicts a midrib and relatively convex sides. A dagger (Kh. V 39) with a partial tang, a wide triangular blade with slightly convex edges, and three holes for rivets arranged in a triangle was found in N43:15. The rivet pattern is similar to that of a number of daggers from Ur (Woolley 1934: Pl. 228, types 4, 5 a, 7 c, and 7 d. A long spearhead, Kh. III 759, was stuck to a chisel when found in the domestic architecture to the northwest of the Temple Oval. This spearhead has a slender convex blade, with shoulders that narrow into a hexagonal section, tapering into straight rectangular tang, extremely similar to spearheads from Ur (Woolley 1934: Pl. 227, type 2 a; as well as engraved spearheads from grave PG/789 on Pl. 189). The degree of similarity between these spearheads may suggest a dating of Houses 4 as contemporary with grave PG/789.

EDIII to Early Akkadian transition

The presence of “plano-convex bricks” was seen as a hallmark of pre-Akkadian architecture by the excavators, particularly Delougaz (Gibson 2011: 60). Accordingly, the Temple Oval, the Sin Temple, as well as the Houses domestic architecture, were all dated to the Early Dynastic period (Frankfort 1939: 7; Delougaz et al. 1967: Table III). This was later challenged by Gibson (1982, 2011), who argued that the latest levels at Khafajah belonged to the Akkadian period. However, several lines of evidence push the dating of Houses 3 into a transitional EDIII-Akkadian, and Houses 2 and the late Temple Oval II into the early Akkadian period. The following is a discussion of the objects and architectural features dating to this period (**Fig. 7**).

Two fragmentary inscriptions bearing the name of Rimush were found in J45:2 and K45:2, in Oval III contexts according to the excavators (Delougaz 1940: 149–50). These inscriptions are extremely significant, as they provide a definite historical connection. A fragment (Kh. III 1364) of a stele found in locus J44:1, an Oval II context, depicts the head of a soldier stylistically very similar to the Nasiriyah Stele and other



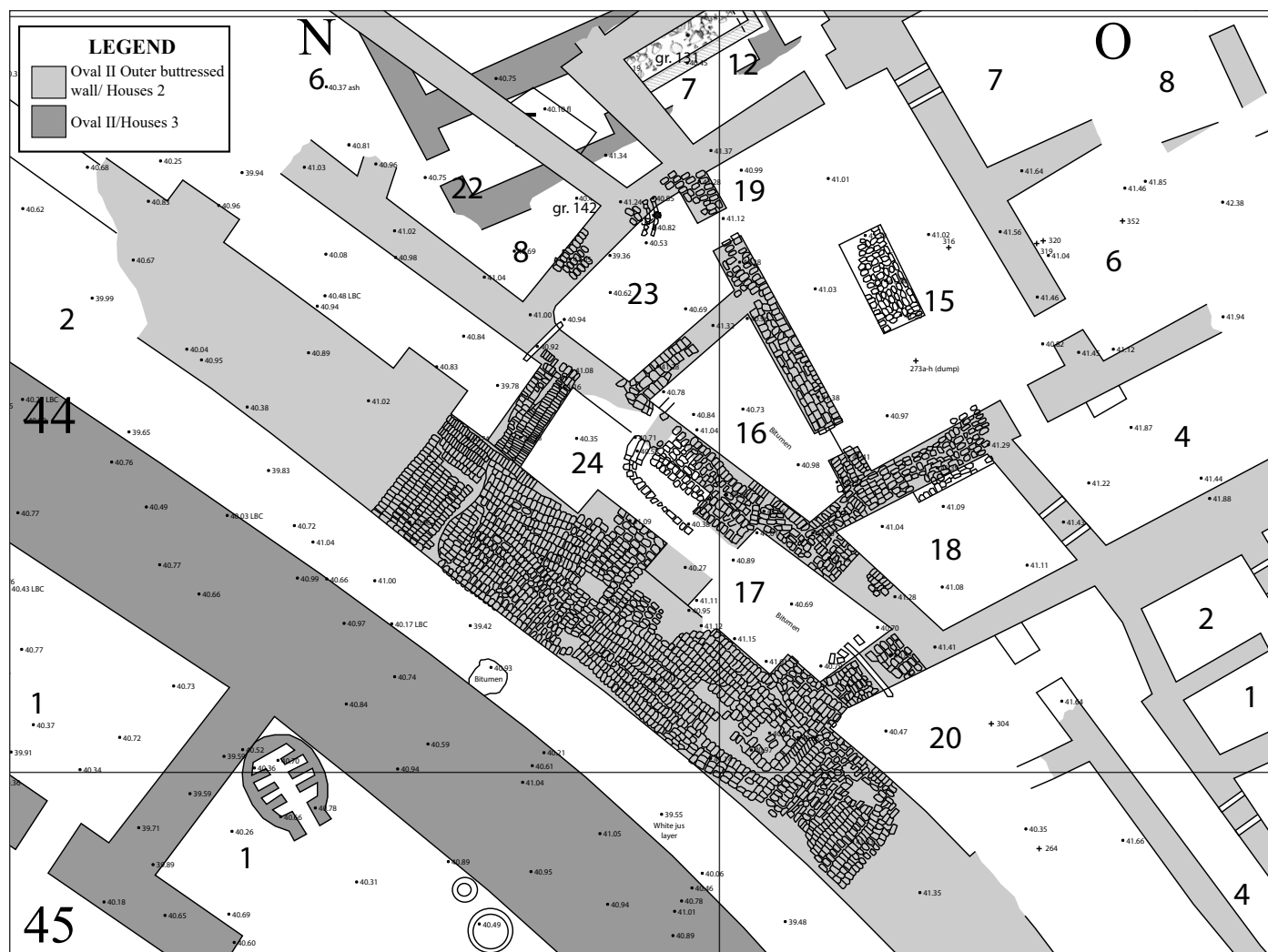


Figure 8. Close up of the brickwork of the outer buttressed wall of the late Temple Oval II and Houses 2.

Akkadian objects.¹⁵ Based on the elevations provided for some of these inscribed objects in the field register, and the presence of a Naram-Sin inscription beneath Oval III architecture, these objects must pre-date the Oval III level by some amount of time, and are thus very likely associated with the Oval II level. Houses 2 has brickwork abutting the buttressed outer wall of the Oval II in squares N44 and O44 with similar brick size, and can be considered contemporary (Fig. 8). This earlier dating is also confirmed by vessels found in Houses 2, including an ovoid jar with a high foot (C.686.443), and a double ridged-rim jar with a wide neck (D.565.310), identified by McMahon (2006: 104) as forms belonging to the Early Dynastic-Akkadian period transition.

Tutub may have been the site of one or more siege battles around this time. This is suggested by evidence of damage to the buttressed outer wall of the Oval II in square R44, which the excavators attributed to a siege, and which was later repaired with larger bricks (Delougaz 1942:77).¹⁶ This destruction may have been related to the ash layer visible in section A-A' (Delougaz 1940: Pl. XII) which extends across a large part of the main excavation area below Sin X, Houses 2, and the buttressed

outer wall of the Temple Oval II. Alternatively, the ash layer and the damage to the buttressed outer wall may represent two separate violent events. As evident in Section 8-8' (Delougaz 1940: Pl. VIII), this ash extends below the buttressed outer oval, and thus may have entirely preceded the construction of the wall. However, it is not possible to distinguish the Oval II outer wall from the first building period in Section 8-8', even though the plans indicate this is a distinct level; it also shows burned matting below the thickened inner oval wall of the second building period, but apparently at a slightly lower elevation than the ash layer.

The destruction debris of Houses 3 is covered by an ash layer followed by the construction of Houses 2, and thus likely represents an EDIII-Akkadian transitional level which partly falls into the early Akkadian period. Therefore, the buttressed outer wall of the Temple Oval II, as well as Houses 2 and Sin Temple X—the latter two constructed above the ash layer—belong to the early Akkadian period. As Tutub was within the core area of the Akkadian empire, it is likely to have been absorbed relatively early during the reign of Sargon, and it is possible that this was a violent conquest. However, the

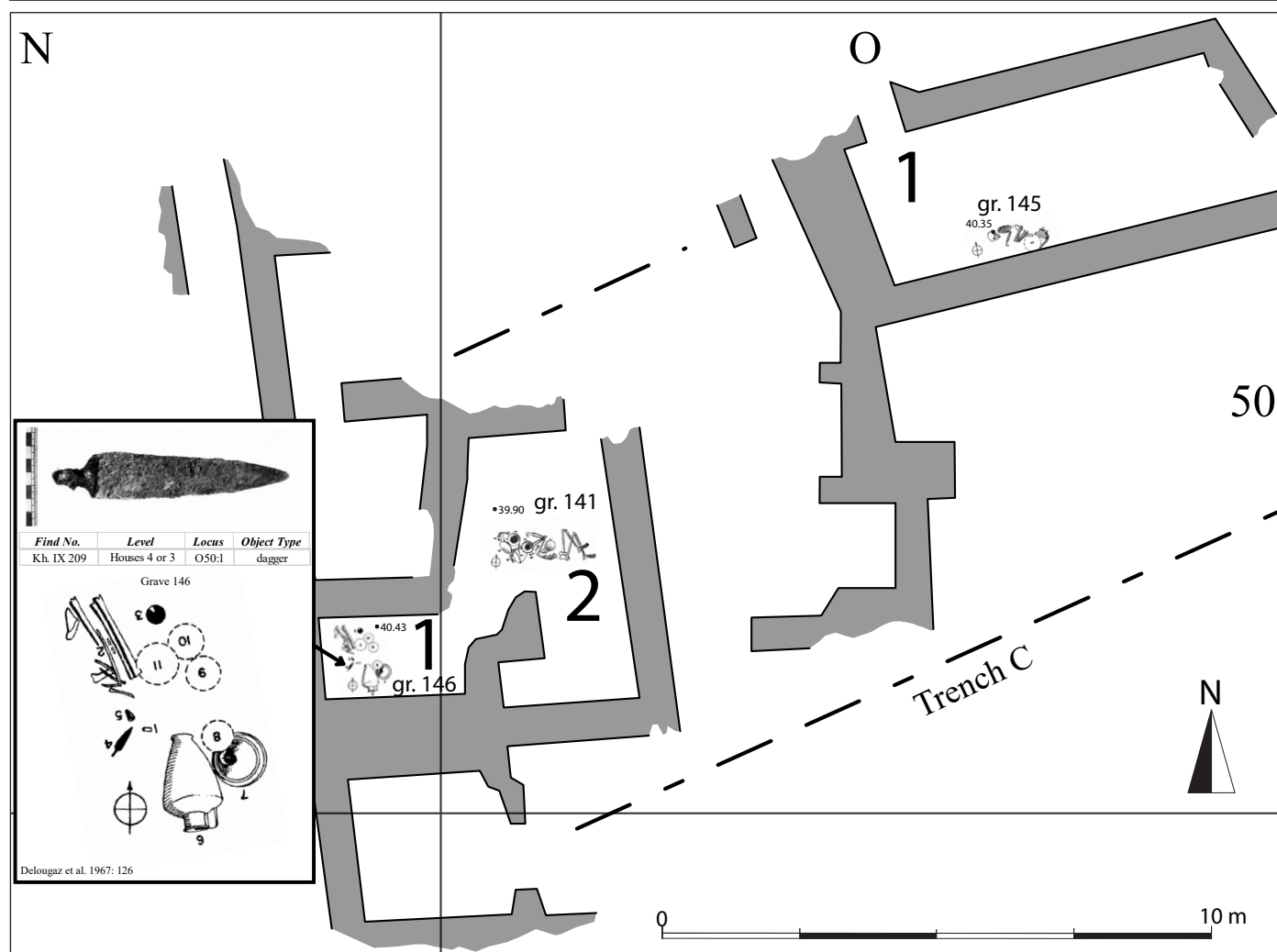


Figure 9. Segment of Trench C. Grave 146, the earliest to contain a weapon as a grave good, indicated on the plan. Grave image from Delougaz et al. (1967).

Houses 3 period destruction level is more likely to date to the reign of Rimush. Historical inscriptions suggest that Rimush faced numerous internal rebellions which were violently quelled with large numbers of casualties and the destruction of rebellious cities (Frayne 1993); Tutub may have been one of them. The stele fragment of the Akkadian soldier (Kh. III 1364) may have been part of a stele commemorating a decisive battle. The findspot of this fragment at the entrance of the Temple Oval complex suggests that the plaque was publicly displayed, mounted on a door or wall¹⁷ at the entrance to the site's largest monumental structure just east of the western city gate. This would have been a location of high visibility and foot traffic, since it was immediately east of the western city gate, thus making it a potent ideological statement.

Houses 3 (late EDIII/early Akkadian)

Grave 146 in Trench C (Fig. 9), south of the temple neighbourhood, has the earliest example of a weapon deposited as a grave good at Khafajah.¹⁸ The pottery vessels from this grave are characteristic of the late EDIII to early Akkadian

periods,¹⁹ and it is therefore likely to be contemporary to Houses 3. A small dagger (Kh. IX 209), located close to the remains of the body, has a partial tang with two rivets in a linear arrangement and a slightly convex shape culminating in a sharp point. Comparanda include type 6 daggers from Ur (Woolley 1934: Pl. 228), daggers associated with skeleton 1 from Burial 14 at Nippur (McMahon 2006: Pl. 152), two daggers from Abu Salabikh (Martin et al. 1985: Fig. 142), and a dagger (As. 32: 636) from Stratum IVa at Tell Asmar. The Khafajah burial, located in a small room in a domestic area, also contained a number of other copper objects, as well as pottery, carnelian and lapis lazuli beads, and a shell cylinder seal (Delougaz et al. 1967: 126).

Houses 3 (Fig. 10) is contemporary with Sin temple IX, Nintu Temple VII, and the Oval II, and was built prior to the construction of the buttressed outer wall, or at least before the damage to the buttressed outer wall if there were two separate destruction events. Three objects date to the Houses 3 level. Of these three, a socketed battle axe (Kh. III 1109) from L42:5 north of the Oval II is especially significant as it is a

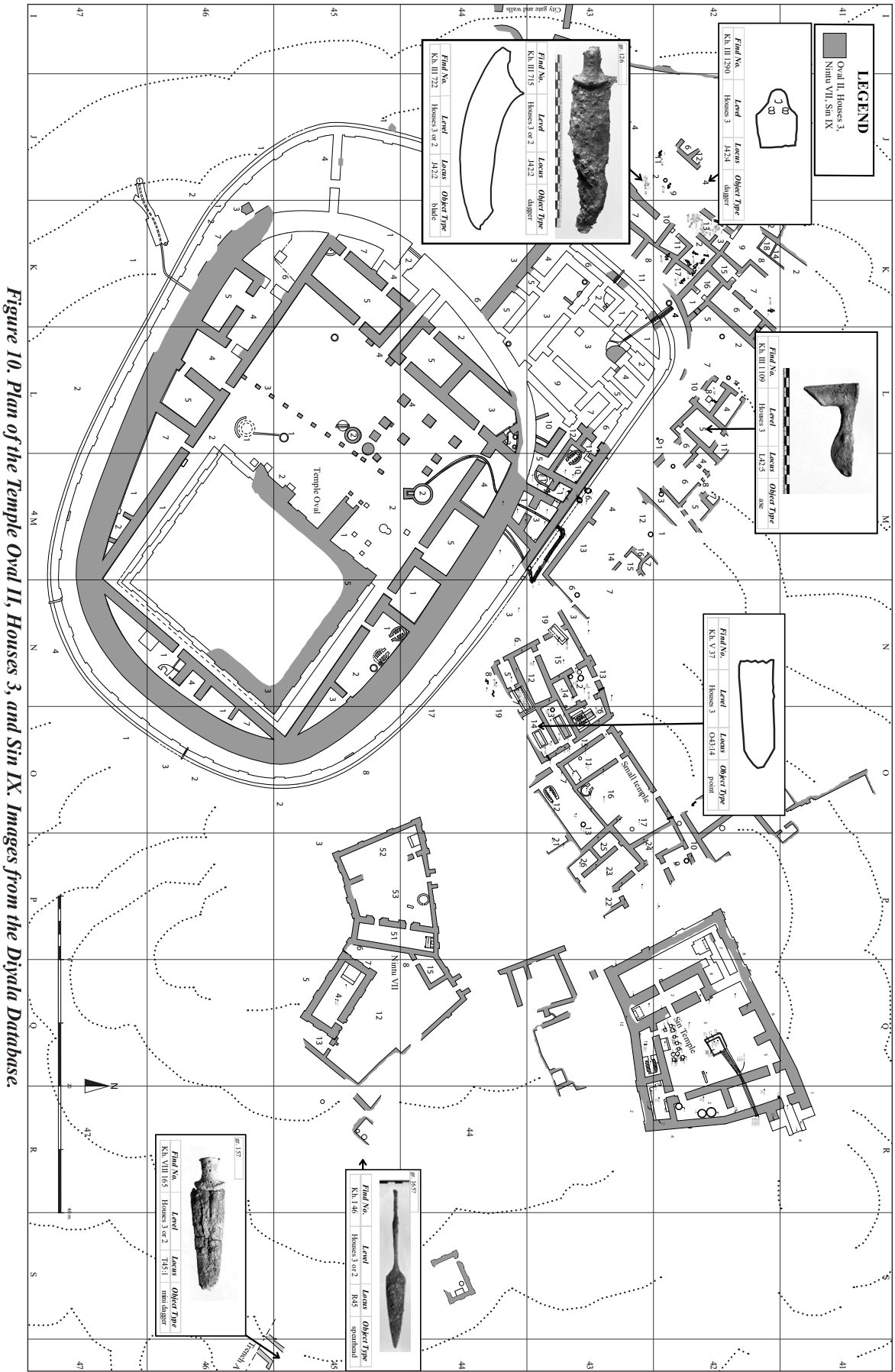


Figure 10. Plan of the Temple Oval II, Houses 3, and Sin IX. Images from the Diyala Database.

type frequently carried by infantry in EDIII depictions.²⁰ This example is quite small, but its form is otherwise identical to several from the Royal Cemetery of Ur (Woolley 1934: Pl. 223).²¹ Also found in the domestic architecture surrounding the Temple Oval were the fragment of a dagger tang (Kh. III 1290) with three rivet holes with a triangular arrangement, and object Kh. V 37, a blade fragment with straight sides culminating in a triangular point, perhaps a chisel.

Houses 3 or 2

Four of the weapons found at Khafajah are from contexts contemporary to either Houses 3 or 2. A dagger (Kh. III 715) and a curved blade (Kh. III 722) come from Grave 126, the burial of a youth in a domestic area north of the Temple Oval possibly dating to the Akkadian period.²² The dagger was in relatively poor condition; it had a wooden handle covered with silver or iron, according to the field register, with three rivets arranged in a linear fashion below the guard.²³ The handle appears to have been broken. There was also a badly corroded curved blade with no metal left according to the field register. It is thus impossible to determine whether this was a sickle, a curved battle axehead, or a curved dagger like one found at Nippur (McMahon 2006: Pl. 162, object 4). A nearby grave from the same locus contained a whetstone, but no weapons. Two weapons were also discovered to the east of the Nintu temple in Grave 157 in Trench B.²⁴ This grave is particularly interesting because it contained a very small and apparently intact dagger (Kh. VIII 165). The dagger has a silver handle with three holes for rivets in a linear arrangement; it is perhaps a miniature, since the individual who was buried in that grave was apparently an adult (Delougaz et al. 1967: 129). The grave contained very few other objects: a cylinder seal, a lapis lazuli bead, and two carnelian beads. Just to the east of the Nintu temple, a spearhead (Kh. I 46) was found. It had a long tang about the same length as the blade itself, rounded shoulders, slightly convex edges, and a sharp point.

Sin Temple X and its vicinity

Sin X had distinct spatial changes from previous levels (Fig. 11); the entrance to the temple compound was from the north instead of the east (as with Sin temples I-IX), and the building was substantially enlarged to the west above Houses 3 architecture, expanding its traditional western architectural boundary, and therefore likely to have been constructed at the same time as Houses 2. The Sin Temple must have still been in use at the time of Houses 1, as the large enclosure wall of the Houses 1 compound had an indent to accommodate the perimeter of Sin X. Two weapons were found in locus R42:18 in the Sin X level in the southeast of the courtyard. One was a fragment of a socketed axe (Kh. IV 376) with a broken socket but otherwise the same type as axes Kh. III 1109 and Kh. III 737. The thickness of the axehead is recorded in the field register as 0.2 cm, which suggests that the object may have been non-functional. It otherwise resembles the side profile of an EDIII socketed battle axe. There was also a small spearhead

(Kh. IV 377) with an angular triangular blade and a relatively long tang, with a similar thickness to the axehead.

Houses 2

The Houses 2 level contained a multitude of weapons and related objects (Fig. 11). Grave 167 excavated in locus K42:9 of the domestic area north of the Temple Oval contained a battle axe (Kh. III 737) and what appears to be a complete knife or dagger (Kh. III 740). The axe, apparently with traces of wood in the socket, is very similar to Kh. III 1109 from Houses 3, with some minor differences: it is larger and has a blade which has a slightly more downward angle of impact. The dagger in this grave has a complete handle, apparently entirely of copper or bronze since no other materials were recorded in the field register, and it has a slight protrusion close to the blade acting as a guard. There was also a whetstone among the grave goods, suggesting the deceased individual had actively been using and maintaining weapons during his life. The presence of a battle axe and whetstone in this grave suggests that this was the burial of a warrior. The grave goods indicate that he had access to a variety of imported materials, as there were lapis lazuli, carnelian, and shell beads, a number of silver rings, and numerous copper objects.

East of this domestic area, a fragment of an axe (Kh. III 26) was found in locus M42:1. There were many whetstones in the domestic area between the Temple Oval and the Sin Temple; one in N43:2, two below Houses 2 northwest of the Sin temple in O42:2, and three in O44:15 just east of the buttressed outer wall of the Temple Oval. A broken dagger (Kh. III 355), with a rounded point and two rivets in its tang was located just east of this last cache of whetstones in O44:11; it is very similar to Kh. IX 209 from Grave 146 (see above). The inclusion of whetstones indicates activity in maintaining blade edges. A fragment of the centre of a blade (Kh. III 1253) was discovered south of the southwest corner of Sin Temple X. Two weapons were present in Grave 144 in the domestic area to the east of Sin X: a dagger with two rivets holes (Kh. IX 28), and object Kh. NR 1047, probably the point of a dagger blade. Grave 156 in locus V44:2 in Trench A contained a small dagger (Kh. VIII 167) with two rivets, however, the location of this grave was not recorded on any plans. It is possible this was also a miniature copy of a dagger like the dagger found in Grave 157. Of all graves containing weapons, these two contained the least grave goods.

A number of graves containing weapons were assigned to “above Houses 2” (Fig. 12): Graves 148, 165, and 168. Grave 148 cuts into the “below Houses 2” domestic architecture to the northwest of the Sin Temple. This grave contained a fragment of a triangular blade (Kh. III 254). No drawing of the grave exists, and thus the position of the dagger fragment cannot be ascertained. Other grave goods included pottery, a copper pin, a copper vanity set, beads, and a cylinder seal with a geometric design (Delougaz et al. 1967: 127).

The location of Grave 165 has been reconstructed based on Conrad Preusser’s field register; it is not shown on the published plans. A drawing of the grave (Delougaz et al. 1967: Fig. 100)

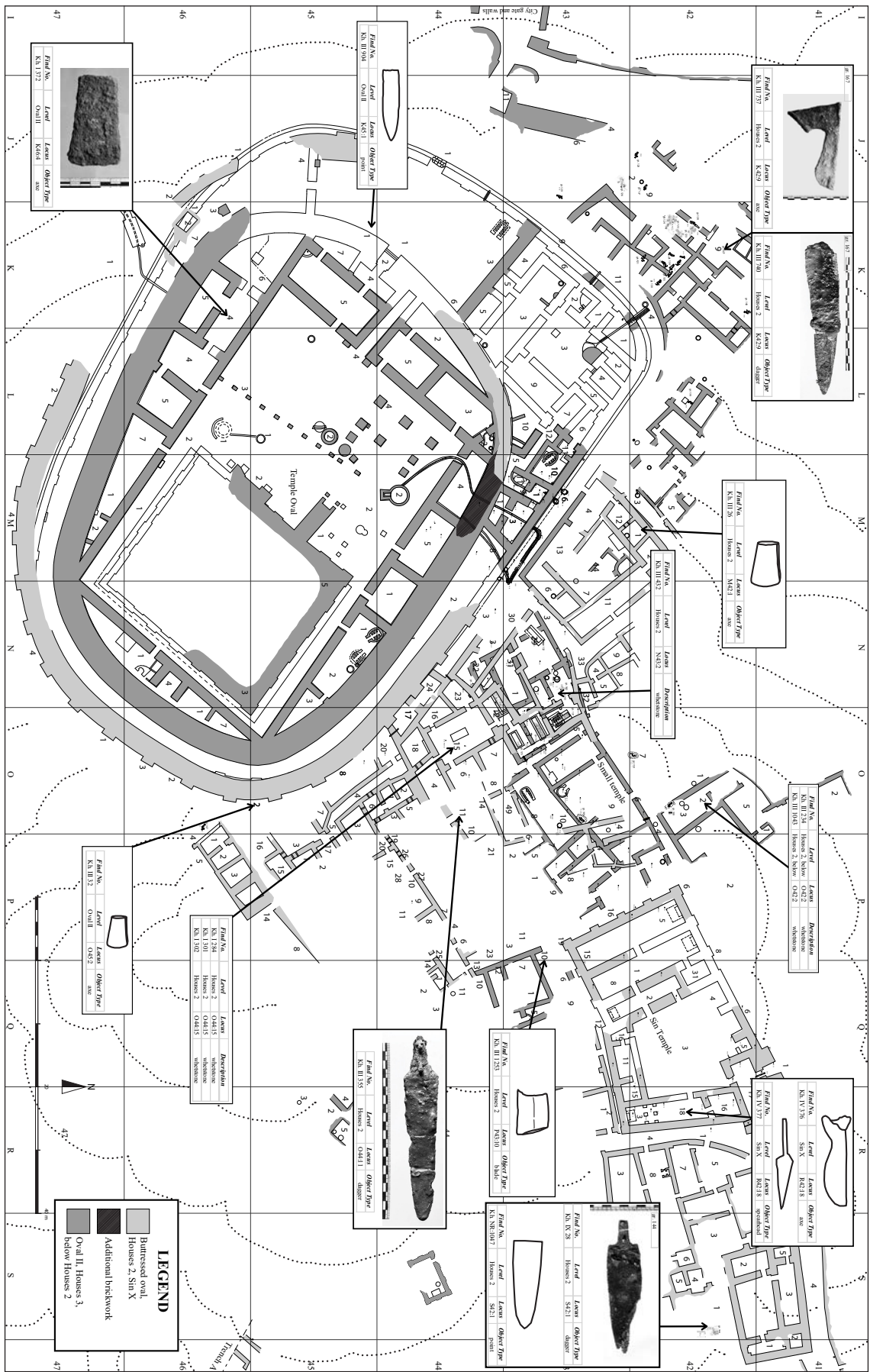


Figure II. Plan of the late Temple Oval II (with buttressed outer walls), Houses 3 and below Houses 2, Houses 2, and Sin Temple X. Images from the Diyala Database.

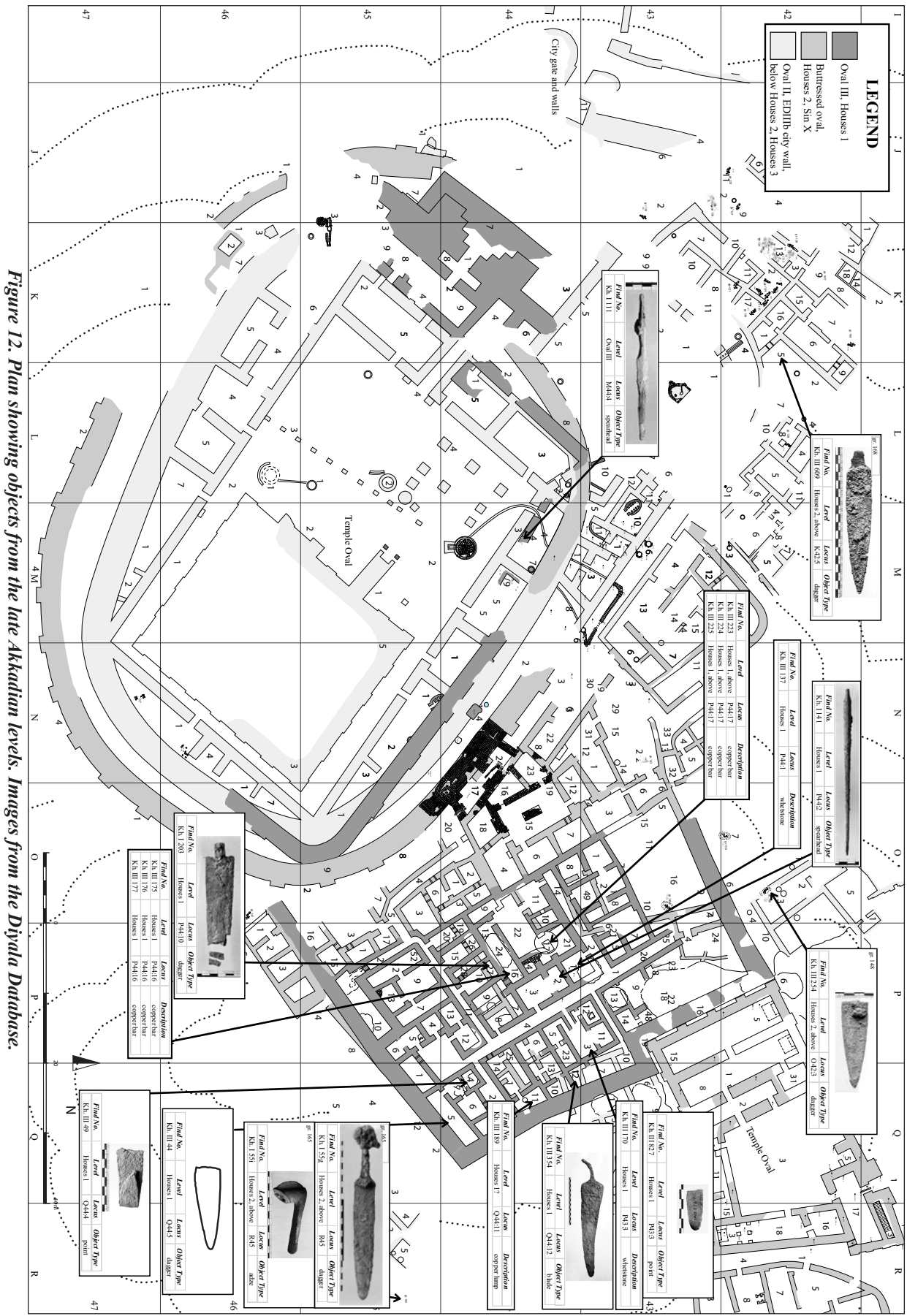


Figure 12. Plan showing objects from the late Akkadian levels. Images from the Diyala Database.

shows the dagger on top of the pelvis of the skeleton, apparently of a child, with the socketed adze just to the north. The dagger (Kh. I 55g) appears to be almost completely preserved, with a bulbous pommel and a thin grip. The blade has a rounded point and slightly convex edges. The adze (Kh. I 55i) features a reinforcing rib on the rear of its socket. The design of the socket is identical to numerous examples of socketed battle axes, and the reinforcing rib is similar to that on some axeheads and adzes from Ur,²⁵ suggesting that this was a weapon. This grave also contained a number of pottery vessels, agate and lapis lazuli beads, a stone bowl, and a copper pin, ring, and bowl.

Grave 168 was located within the domestic area to the north of the Temple Oval in K42:5; unfortunately, the location of this grave was not shown in any published plans, field plans, or sketches. No human skeletal remains were found, but there were a number of copper objects, pottery, a cylinder seal, a stone frog amulet, stone beads, a shell cosmetic container, and a bitumen handle (Delougaz et al. 1967: 133), alongside a small dagger (Kh. III 609) with a partial tang without rivet holes.

Later Akkadian Period

A fragment of a bowl with a Naram-Sin inscription (Kh. II 79) from K45:1, a Temple Oval II locus beneath the Oval III, may have been a foundation deposit. This would date to the reign of Naram-Sin the construction of the Oval III, along with contemporary structures such as Houses 1, and probably the Akkadian Foundations complex in the north of Mound A. The presence of a Naram-Sin inscription beneath Oval III architecture also lends credence to the previous argument that the two Rimush inscriptions should be dated to the (probably late/butressed) Temple Oval II level.

The construction of the Houses 1 walled quarter was a major architectural development. While it is chronologically later than Houses 2 architecture in a number of areas (Henrickson 1982: 11–13)—one of the known entrance points into the inner complex remained the same (O45:5), indicating some continuity in spatial traditions—there was also major internal reconfiguration, along with the construction of a large outer wall. This appears to have been a planned construction, with the interior divided into a number of distinct units containing a dominant central building (Margueron 2007). Access to the inner compound was restricted, with only a second possible entrance from the northwest into the P43:1 hallway, in addition to the existing entrance already in place during Houses 2 in locus O45:5. The tripartite layout of some of the units, similar to other domestic architecture at the site, along with the presence of pottery, various utensils and utilitarian objects, possibly children's toys with miniature chariots and wheeled vehicles, and other objects, does suggest residential use, though there is a lack of remains of drainage systems, ovens, hearths, and other features that would be expected of residential architecture.²⁶ Cylinder seals and weights in a number of units in the walled quarter suggest economic or accounting activity taking place as well, lending credence to Gibson's suggestion that the Houses 1 compound was an "administrative residence" (1982: 536) and to Margueron's identification of Houses 1 as an administrative

centre of the elite religious class (2007). Margueron justifies his conclusion by reasoning that only religious elite would have had the authority to undertake a construction program which was spatially connected with its enclosure wall to the Temple Oval III and Sin Temple X (2007).²⁷ However, one may also posit that a higher Akkadian imperial authority could have also had the authority to do so. The Akkadian Foundations building was also built above the domestic architecture and domestic graves, and has been suggested to have been a large, elite residence (Heinrich 1984: 32–34).

These latest archaeological levels reveal a proliferation of weapons in the assemblage (Fig. 12). Only one weapon was assigned to the Oval III level—a relatively thin spearhead (Kh. I 111) found in locus M44:4, which bears a strong similarity to type 2a from the Ur cemetery (Woolley 1934: Pl. 227). A total of six weapons were assigned to Houses 1, distributed throughout the walled quarter. A small room (P44:2) cut by a robber hole in the central part of the walled quarter contained a long, spike-shaped spearhead (Kh. I 141) with a very short tang. In the field register from the first season, this object was labelled as a *Schlanke Speerspitze*, with *Speerspitze* crossed out and "pin" written above, a classification that was retained in the publication, despite its large size and similarity in both form and length to objects from the Shara Temple (Ag. 36:312 from locus M14:15), the Royal Tombs of Ur (1a and 1b in Woolley 1934: Pl. 227), and Nippur (McMahon 2006: Pl. 162, object 3). A broken dagger (Kh. I 203) was located in one of the narrow rooms south of this central unit. This dagger had a short tang, square shoulders, and was broken into multiple pieces at its point. Two fragments, probably of daggers, were found in the southeastern unit: Kh. III 44 in Q44:5, similar in shape to other daggers, and Kh. III 49, also probably a dagger fragment which was bent or folded approximately 4–5 cm below its point. A massive curved blade (Kh. III 354) was discovered north of this unit. This blade, probably a sickle intended for agricultural use, is very similar to an object from the Ur cemetery that was called a "saw" (Type 3 in Woolley 1934: Pl. 229). Another fragment, possibly part of a dagger with a rounded point (Kh. III 827), was located nearby, in the same locus as a whetstone.

A small shell inlay (Fig. 13) from locus P44:21 in Houses 1 depicts a typical "Sumerian" soldier with a socketed battle axe, a helmet, a sash over his left shoulder coloured with red paint, and a skirt. If Houses 1 dates to Naram-Sin, such a depiction would be rather anachronistic, being reminiscent of EDIII imagery, and thus it is possible that this inlay may have been an older object or an heirloom kept in the Houses 1 walled quarter. This locus seems to have been a storage room for high value items – gold, frit, carnelian, lapis lazuli beads, bone, silver objects, etc. Significantly, three copper bars were found at Houses 1, in locus of P44:16 of Houses 1 (Fig. 11). Three more copper bars were discovered in a robber hole (P44:17) assigned to "Houses 1, above" by the excavators. There was also a copper lump in Q44:11 on the east side of the walled quarter. These were not in association with any nearby production facilities, but the presence of a hoard of copper bars, all in the large central unit within Houses 1 walled quarter,

increases the likelihood that casting or forging activity occurred somewhere at Khafajah. The presence of whetstones in locus P43:3 on the eastern side of the quarter, and in P44:1 in the central area also indicates that weapon maintenance took place there.

Weapons as grave deposits

Of the sixty graves dating from the EDIII to the Akkadian period at Khafajah, nine contained weapons as grave goods (**Table 4**). These graves were of varying levels of wealth, but all were simple burials without vaults or preserved matting. Except for Grave 148, each grave had one dagger, while four graves had two weapons. A battle axe in one of the graves, similar to the types depicted on EDIII artifacts showing warfare, was found alongside a standard dagger, which suggests that these weapons were grave deposits for warriors. The location of daggers on or close to the hips of the human remains in Graves 146, 126, and 165 suggests that these individuals were buried with these weapons tucked into their belt or in a sheath, perhaps as they would have done in daily life. The most common objects interred were beads, followed by pottery vessels, and various copper objects. Two graves, 157 from Houses 3 or 2 and 156 from Houses 2, contained only modest deposits, with less than 10 objects each. In both cases the human remains were identified as adults, and each grave contained a cylinder seal and a miniature dagger. As a number of these graves were disturbed, it is possible that additional objects accompanied the burial. All individuals buried with weapons had access to imported materials and rare objects. Foster notes that there was no gold or silver jewelry in Akkadian graves at Khafajah (2015: 238). As Houses 2 almost certainly falls into the Early Akkadian period, this observation no longer holds, since Grave 144 had three silver rings, and Grave 167 had four. It may be that the objects in these graves were personal items belonging to the deceased,²⁸ with weapons in particular containing the social memory of the deceased warrior's status. The location of some of these graves within domestic areas suggests a link between new mortuary practices, the formation of familial ancestral memory and ancestor tradition, and practices



Figure 13. A shell inlay (Kh. III 885) from Houses 1, approximately 2cm wide. Depiction of a soldier with a socketed axe, helmet, wearing a sash over one shoulder and a skirt.

of inheritance, all of which reflect a “close and complex relationship” characteristic of greater Mesopotamia (Porter 2002: 4).

The evidence from these graves suggests that conflict in the late EDIII and Akkadian periods was reflected in social practices at Khafajah, with some individuals wearing daggers and being buried with weapons, which suggests the development of a local warrior class. It would seem that weapons were accessible across social strata, appearing both in wealthier and poorer graves. In addition, evidence indicates that juveniles also possessed and handled weaponry, if grave goods indeed reflect the material reality of daily life. These burials are comparable to some attributed to Nippur levels XIIB and XIIIB dated to the Akkadian period, such as Skeleton 1 in Burial 14, which had a number of bronze or copper weapons, including a spearhead on the hip of the skeleton and two short daggers (McMahon 2006: Pl. 65 and 66), and Skeleton 4 in Burial 14, which had a long spearhead similar to Kh. I 141 from Houses 1 (2006: Pl. 61). A parallel could also be drawn to Graves 19, 27, 51, 53, 76, 80, 84, 89, and 93 from Abu Salabikh which contained copper or bronze axes, daggers, and points (Martin et

al. 1985). The many tombs containing weapons at the Royal Cemetery of Ur provide markedly wealthier parallels to the burials in Khafajah.

Unfortunately, no osteological or pathological studies were conducted on the human remains from the Khafajah burials, thus little can be said regarding the sex of the deceased, the cause of death, or afflicting diseases and injuries, besides from the estimates of age provided in the Oriental Institute publication. The presence of weapons, particularly a battle axe known to have been used in warfare of the time, implies that these were burials of warriors. McMahon suggests that weapons represent “masculine technology” and can be contrasted with the presence of cosmetic shells and fine straight pins associated with female burials (2006: 48). However, a number of graves at Khafajah (126, 157, and 167) contained both straight pins and shell-shaped cosmetic containers alongside weapons, casting doubt on whether these items were necessarily gender specific.

Grave	Level	Age	Daggers	Axes	Adzes	Blades and Points	Pins	Other Copper/Bronze objects	Cylinder Seals	Carneian Beads	Lapis Lazuli Beads	Other Beads Frit/Stone	Silver Objects	Pottery Vessels	Stone Vessels	Containers	Whetstones	Figurines	Total Artifacts
146	Houses 3 or 2	Adult	1					1	1	1	1			6		1			12
126	Houses 3 or 2	Youth	1			1	4	11	2	12		3	1	4		1		1	41
157	Houses 3 or 2	Adult	1						1	2	1								5
144	Houses 2	2 Adults	1			1	2		1			1	3	11					20
167	Houses 2	no skeleton	1	1			5	2	2	1	3	4	4	13	2	1	1		40
156	Houses 2	Adult	1				1	1	1					5		2			10
148	Above Houses 2	Unknown				1	1	1	1	4	7	47		3					65
165	Above Houses 2	Child	1		1		1	2			2	1		5	1				14
168	Above Houses 2	no skeleton	1					4	1			4		12					22
Total Artifacts			8	1	1	3	14	21	10	20	14	60	8	59	3	5	1	1	229
% of grave goods in graves with weapons			3.5%	0.4%	0.4%	1.3%	6.1%	9.2%	4.4%	8.7%	6.1%	26.2%	3.5%	25.8%	1.3%	2.2%	0.4%	0.4%	

Table 4. Table of objects from graves with weapons; data from the Diyala Database and Delougaz et al. (1967: 115–33).

Only graves 157 and 168 contained neither containers nor pins. Overall, the inclusion of weapons represents an important change in burial practices at Khafajah.

Discussion

A number of observations can be made regarding the form and social function of metal weaponry in the Early Dynastic and Akkadian periods at Khafajah. The typological forms of weapons represented show distinct diversity, with spearheads, daggers, axes, adzes, and a number of point fragments (some of which are probably chisels) and curved blades, and it would appear that these objects were used in a variety of social roles and functions. There were weapons found in temple contexts, where they may have had a ritual use in animal sacrifice as evidenced by the stone plaque from the Temple Oval I level. The combined evidence of domestic and grave contexts reveals that weapons carried an inherent social value, leading to their eventual integration into burial rituals. Noteworthy patterns in their archaeological contexts indicate temporal changes in the social roles of weapons, which strongly points to a development of a local warrior culture at Tutub. Some weapons were found only in temple contexts up until the Houses 4 level, which dates to approximately late EDIII, though this may be due to limited exposures of domestic areas until that period. There was a significant proliferation of weaponry in the late or transitional EDIII into the Akkadian period. This coincides with defensive constructions, which were destroyed during the Akkadian period, and the appearance of weapons as grave goods, a widespread practice during the 3rd millennium BCE in the Near East (Watkins 1982: 21). At the same time, weapons began appearing in domestic contexts. The presence of whetstones in these later levels, and in one grave, indicates that weapons were in active use by warriors in Tutub, being sharpened and maintained. The human remains found with weapons deposited with them show that the possession and use of weaponry cross-cut social strata, and that juveniles or adolescents may have had access to or used weapons. Re-dating the later levels (in particular Houses 2 and 1) to the Akkadian period suggests that some types of weapons, in particular the socketed battle axe, were still in use at that time notwithstanding its absence in Akkadian monumental art.

Together, these patterns show numerous archaeological correlates for warfare in EDIII and Akkadian period Khafajah as outlined by Carman (2013: Table 2.2), based on Keeley (1996) and Wileman (2009). Preparations for warfare are evident in the appearance of fortifications with defensive features such as buttressing and multiple layers of walls, and the proliferation of weaponry. Damage to the Temple Oval buttressed outer wall and an ash layer found across much of the excavated portion of the site are likely to be direct consequences of conflict. The effects of these developments in warfare are visible in a change in burial practices where weapons were deposited as grave goods and bodies were buried wearing weapons, as well as in architectural and some artefactual changes following a destructive event at the site.

Three categories of daggers were identified from the beginning of the EDIII and continue into later periods at Khafajah: daggers with partial tangs but no apparent rivets, those with three rivets arranged in a triangular shape, and those with a straight tang with linear rivets (either two or three). Blades range from rounder convex shapes, to more pointed and triangular styles. Two blades, one from Nintu VII and one from Grave 156 in Houses 2, have raised midribs, suggesting that the latter type of blade was still in use in the early Akkadian period.²⁹ A dagger from Sin 3 appears to be the only outlier, lacking rivets in its tang, indicating that riveting the tang to the handle was a later development dating to the EDIII. There is evidence to suggest that daggers were used in combat. One marble inlay from Ebla shows a dagger with a large circular pommel being pushed into the face of a downed opponent, who is still alive and struggling against his assailant (Matthiae et al. 1995: Pl. 25). A fragmentary inlay from Mari shows a soldier with a helmet holding a dagger with a straight handle and no cross-guard, poised to strike an opponent (Parrot 1967: Pl. LXIII, 2640). The tangs of all of the daggers from Khafajah are quite short, probably partial tangs. Object Kh. I 55g appears to have a complete handle, but it is very thin at its centre; it can be assumed to have had an organic grip which was not preserved. From the Akkadian period, the Nasiriyah stele shows Akkadian soldiers holding up daggers with large pommels by their straps, suggesting that these were trophies captured in war; there are otherwise no depictions of Akkadian soldiers using daggers in combat. Miniature daggers are also part of the assemblage, as two examples were found as grave goods, perhaps made specifically for this purpose. The location of daggers on or near the hips of skeletal remains in burials (where sketches were available) suggests that these may have been worn tucked in the belt,³⁰ but there are no depictions of this fashion except for its appearance on the waist of an anthropomorphized lion on a shell plaque from the Ur Lyre (Woolley 1934: Pl. 105).

Spears appear to have been the most common weapon in Early Dynastic and Akkadian period warfare, shown in large numbers on many of the artifacts discussed above, perhaps most prominently on the Stele of the Vultures which depicts a formation of armoured and shielded spearmen, and a large contingent of troops carrying both spears and battle axes. This is not surprising, as spears require less metal, and provide the longest reach in combat. In the EDIII period, spears were used both with and without shields, and may have served as a primary weapon with an axe as a secondary armament.³¹ A variety of lengths were used, evident in depictions showing very short, medium, and long spears. At Khafajah, spearheads tended to have a thin haft of various lengths (when preserved), and so were likely to have been affixed to a shaft by cutting a vertical slit into the shaft end, and probably secured with a binding agent such as bitumen, or with cordage. Interestingly, there were no spearheads with sockets. Long spike-like spearheads, which is a distinctly different design from spearheads from older levels with lanceolate or angular shapes, were only found at Houses 1 and Oval III. While not differentiated in this study, it is possible

that some of the smaller points were projectiles (see Kh. IV 24, Kh. II 153b, and Kh. IV 377).

Two types of axeheads are apparent at Khafajah; socketed battle axes and wedge-shaped axeheads. Socketed axes feature prominently in EDIII monumental art, such as the Standard of Ur, the Stele of the Vultures, and inlays from Fara, Mari, and Kiš. Among these are Kh. III 1109 from Houses 3, Kh. IV 376 from Sin X, and Kh. III 737 from Grave 167 in Houses 2, as well as the axehead fragments Kh. III 32 from the Oval II and Kh. III 26 from Houses 2.³² Typically, the top of the axehead is flat, with a rounded heel culminating in a point. There is some variation in terms of the angle of the blade to the socket; Kh. III 737 would likely have a blade angled downwards, compared to the relatively perpendicular blade of Kh. III 1109. Two wedge shaped axeheads may also have been weapons, resembling a socketed variety held by one of the guards in the “Great Death Pit” at the Royal Cemetery of Ur (Woolley 1934: Pl. 71) or carried by “dignitaires” on L’Étendard de Mari (Parrot 1966: Pl. LVI and LVII). Although the last few archaeological levels at Khafajah date to the Akkadian period, no curved broad axes of the sort portrayed on various Akkadian artifacts were found there.³³

The variety of weapons discussed above, particularly when understood in conjunction with pictorial evidence, shed light on Mesopotamian fighting techniques. The majority of weapons were designed to inflict penetrating trauma,³⁴ including thrusting daggers, a variety of spearheads and points, and battle axes with narrow impact points. Akkadian art does not show any Early Dynastic style battle axes, so it is possible that this particular design fell out of use³⁵ by the later Akkadian period in favour of broad battle axes, or they were not used by Akkadian soldiers. Osteological studies on human remains from ED and Akkadian period burials would provide much more information regarding the lethality of these weapons and the types of injuries they caused. Depictions of military scenes showing injuries to soldiers do occur, such as the injured men on the Standard of Ur with bleeding wounds on their chest, abdomen, and hips, while a spearman on the right end of the middle register of the “war side”, appears to have a bleeding wound on his head (Woolley 1934: Pl. 92). The apparent lack of armour, asides from relatively crude copper or bronze helmets, combined with the stabbing-oriented design of military weaponry suggests a high degree of lethality if attacks were effectively delivered to an opponent.

Conclusion

This study has revealed some of the material culture of warfare in Early Dynastic and Akkadian period Khafajah. The EDIII and Akkadian periods at Khafajah can be characterized as a time in which warfare influenced social practices in numerous ways. Weaponry was found in a variety of contexts reflecting a diversity of social roles: among temple assemblages, in domestic contexts, and in burials. Metal weapons become more prevalent in the assemblage beginning in the EDIII period, with the appearance of daggers, battle axes, and a variety of spearheads. Weapons began to be included as grave goods in

the late EDIII to transitional Akkadian period, demonstrating the growing importance and development of a local warrior class. The construction of fortifications correlates with these developments, and it appears that Khafajah itself was subject to a violent destruction event during the Akkadian period. The overall picture is that of an emerging warrior culture, in which weapons took on a greater social meaning. The results of this analysis, although still preliminary, are nonetheless promising. More detailed typological analyses, using a larger dataset comparing finds from multiple sites, have the potential to reveal regional and chronological variation in the forms of weapons, and identify more precise groupings for typological categories. Some of the hypotheses and data trends posited here could be investigated with archaeometric and use-wear studies on weaponry in museum collections or from excavations, in combination with osteological analyses of human remains from 3rd millennium Mesopotamia. Such investigations in other regions have proven extremely insightful, and would no doubt yield interesting information in the Mesopotamian context.

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NOTES

1. E.g. the Lagash-Umma border conflict (Cooper 1983) and the “prisoner plaque” from Kiš (Steinkeller 2013).
2. Some of these helmets may have been copper, such as those worn by the soldiers sacrificed in the Royal Cemetery of Ur (Woolley 1934: Pl. 148).
3. Early Dynastic infantry can be seen on numerous artifacts: the Standard of Ur and associated objects from the Royal Cemetery of Ur (Woolley 1934), the Stele of Vultures (Hansen 2003: Fig. 52), inlays from Mari (Parrot 1966, 1967) and Ebla (Matthiae et al. 1995: 275), objects from Khafajah, and numerous Akkadian period articles such as the diorite stele fragment from Susa (Amiet 1976: 75), the limestone stele from Girsu attributed to Rimush (Amiet 1976: 90–91), the Nasiriyah stele, the Naram-Sin stele (Hansen 2003: Fig. 59), etc. Correlates to weaponry and equipment depicted on these objects exist at numerous sites as well.
4. Korfmann (1972: 218) and Westenholz (1999: 65) suggest that Sumerian armies lacked slingers and archers, while the Akkadian military used them to a decisive advantage in their conquest of southern Mesopotamia. This seems highly unlikely given the evidence. The Stele of Vultures

records Eannatum being hit with an arrow in battle (Cooper 1983: 45), and an inlay from Mari (which has depictions of soldiers extremely similar to southern Mesopotamia, and so probably had a similar military tradition in the EDIII) depicts an archer firing behind a shield bearer (Cholidis 2003: 158). The “prisoner plaque” from Kiš depicts a man holding a bow (Steinkeller 2013: Fig. 1). In the Diyala region there are many more arrow nocks and arrowheads from Akkadian levels than from Early Dynastic ones, so it may well be that archery became more common at that time. Westenholz’s depiction of Early Dynastic period warfare as immobile phalanxes centred purely on melee combat is conjectural (1999: 65); the Stele of Vultures does indeed show a tight spear formation, but it also depicts a war cart and troops carrying spears and axes with no shields. Other EDIII objects show various types of troops and combat scenes, such as the spearmen on the Standard of Ur who do not carry any shields, and war carts trampling over dead bodies, indicating elements of flexibility and mobility in Early Dynastic warfare.

5. See Hamblin (2006) for a more detailed summary of warfare in the Early Dynastic and Akkadian periods.
6. War wagons appear on numerous objects from the EDIII. The Standard of Ur and an inlay from Mari (Cholidis 2003: 159) show four-wheeled war carts (a near identical design on all three artifacts) pulled by equids, with a quiver of throwing spears in the front; the Standard of Ur shows a driver and a spearman or axeman, while the Mari inlay and the Stele of Vultures (Hansen 2003: 190) show a single crew (though this is rather impossible for Eannatum as both his hands are occupied with weapons). Two-wheeled wagons also seem to have been used, as evidenced by a fragment of a relief from Ur (Woolley 1934: Pl. 181) which depicts such a vehicle with a quiver of javelins (Postgate 1994: 246) and axes, pulled by a number of equids. There is an identical copy of this relief at Khafajah at K43:3 (Kh. I 400) in the House D area of the Temple Oval I level (Frankfort 1939: 187), and another fragment of the lower left portion with the two-wheeled chariot (Kh. IV 133) from locus Q43:11 at Sin IX. Akkadian art curiously does not seem to show any such war vehicles.
7. While broad-bladed battle axes are prominent in later Akkadian depictions, there are still numerous curved blades in Early Dynastic period assemblages at Kiš (Langdon 1924: Pl. XIX), Ur (Woolley 1934: Pl. 224 types A 12, A 13, Pl. 226 type S. 18), and Tell Agrab (Ag. 36: 143, Ag. 36: 144, Ag. 36: 145, Ag. 36: 161 from locus M14:12 at the Shara Temple), and a few depictions of these types of axes from Kiš (Langdon 1924: Pl. XXXVI).
8. Copper from Afghanistan, Western Iran, southeastern Anatolia, northern Iraq (Potts 1997: 65), and Oman (Moorey 1985: 243), tin from Anatolia, and arsenical copper probably from western Iran and Oman (Potts 1997: 165–167).
9. Limited analysis was published on Kh. III 44, a dagger blade from locus Q44:5 in Houses 1 which was composed of 95.50% copper, 3.19% tin, 1% arsenic, and 0.31% nickel, and Kh. III 904, a blade from K45:1 from Oval II, composed of 89.08% copper, 10.50% tin, 0.25% arsenic, and 0.17% nickel (Table B in Delougaz 1940: 152). Broader regional samples suggest a progression towards increased tin content and a decrease in arsenic towards the later 3rd millennium (Figs. 5–7 in De Ryck et al. 2005: 265–66). Without extensive analysis involving the sampling of weapons from established archaeological contexts, little can be said about the development of alloying with respect to the technology of weapons in the Early Dynastic and Akkadian periods.
10. This may explain the presence of arsenical copper weapons even when tin was available. Interestingly, the Akkadian period in Northern Mesopotamia (i.e. the Jazirah region) seems to witness that tin ceased to be used, which De Ryck et al. suggest to be due to a disruption in trade routes (2005: 267); this was not the case at Khafajah.
11. Although recording methods were relatively sophisticated for their time, there is a substantial difference in what was recorded and what was published. For instance, the plans in the Oriental Institute Publications series never show elevations, but many of the original field plans do. When compared to the documentation of later seasons, the difference is particularly noticeable for the first season (Frankfort et al. 1932), for which Conrad Preusser created detailed, brick-by-brick drawings, and included many additional details in the field register (such as object findspots). As part of my doctoral research, the entirety of this data has been digitized and compiled into comprehensive vectorized plans, which are used for this study. In terms of published finds, only the architecture, pottery, and sculpture volumes were completed; a planned “Miscellaneous” volume was never finished, leaving a trove of useful data under-studied. Fortunately, the online publication of the Diyala Database enables researchers to access this data, making studies such as this one possible.
12. This style of axe is carried by some soldiers on the Standard of Ur (Woolley 1934: Pl. 92), a Mari inlay of a king (Parrot 1966: Fig 77), an inlay of a king from Fara, and carried by some soldiers on the Stele of Vultures beneath the phalanx scene. These types of axes seem to be absent in Akkadian art.
13. Figure 10.2 in Molloy (2018: 201) effectively illustrates the life stages of weapons; in that flowchart, the “Use” category (“Primary Functional Life”) can be further subdivided into various aspects of use, i.e. storage, worn accessories, combat, and so on.
14. The excavators identified the House D complex as an elite residence (Delougaz 1940: 46–47).
15. Hauptmann (1991) argues that this stele fragment is Akkadian, post-dating Sargon but pre-dating Naram-Sin, on the basis of artistic similarity, a banded/ribbed helmet or cap, and a face similar to that of the Nasiriyah stele and other Akkadian artifacts.
16. Some of the bricks in N44 were of a different clay, had a different colour, and were of a larger size than the rest of the wall. Delougaz notes that “the houses in the immediate neighbourhood showed no trace of having been destroyed by water” (1942: 77), therefore a siege is the best explanation for the breach and subsequent repair. Ash below Houses 2 to the west of the Temple Oval, and the razing of the Nintu Temple at some point before Houses 2 may be part of this same event (an attack from the east of the Temple Oval with collateral damage to surrounding buildings), though this cannot be verified conclusively.
17. Numerous similar fragments exist, suggesting royal workshops produced stelae for distribution throughout the empire (Nigro 1996: 99).
18. The Trench C graves were identified by the excavators as contemporary with either Houses 4 or 3 (Delougaz et al. 1967: 22).

19. C.516.471, a jar with a goddess handle was also found in graves 153 and 154 in Trench A, in grave 144 from Houses 2, and at Sin X. C.365.810b, a “fruit stand” with incised decorations, was present in graves 159, 161, and 162 below the Akkadian Foundations, grave 168 above Houses 2, in grave 124 in Houses 3 as well as L42:3 from that level, in Houses 2, at N47:2 from the Oval II level, and at grave 153 from Trench A. This indicates a late EDIII or transitional EDIII-Akkadian dating.
20. See endnote 13.
21. Type A 2. a and Type A 3. a are extremely similar to Kh. III 1109.
22. Among the pottery in this grave, B.555.520 was also found in the Akkadian Foundations locus F29:1, and C.365.810c also in Grave 167, K42:9 Houses 2, and the Early Akkadian Grave 166 in R35:2, Sounding E.
23. These rivets are not visible on the photograph of the object, but they appear in a sketch in the field register, where a central ridge is also drawn.
24. Delougaz assigned some Trench B pottery to Houses 2 in OIP67, such as C.655.460 (1952: Pl. 186 table), B.306.503 (1952: Pl. 153 table), and B.033.700b, which was also found in M42:5 in Houses 3 and P45:14 in Houses 2 (1952: Pl. 146 table), hence the suggested dating in this paper to Houses 3 or 2.
25. Compare with Woolley (1934: Pl. 223 type A 1. b, type A 2. a, and type A 7; Pl. 229 type 5).
26. Margueron suggests that the excavated architecture was a ground floor with storage rooms and non-residential spaces (2007).
27. Contrary to this, Vallet argues that there was no direct functional link between the walled quarter and the Temple Oval (2001: 454). This, however, seems conjectural, with Vallet’s (2001: Fig. 2) arbitrary reconstruction of a road network with entrances from the south and east to the walled quarter and combining Houses 2 and 1 into one plan, features which are not found on the published plans in Delougaz et al. (1967) or in field plans and sketches. While Margueron’s (2007) proposed rampart access is hypothetical, the walled quarter nonetheless is part of a cohesive spatial entity connected to the Sin Temple and the Temple Oval. Furthermore, Vallet did not re-assess the stratigraphy and chronology of the site, and thus still has the Temple Oval III and Houses 1 levels in the EDIII, while they are in fact Akkadian period constructions. Hence, one of the arguments against the walled quarter being a residential area housing religious elite, “on peut se demander tout d’abord pour quelles obscures raisons on aurait attendu aussi longtemps pour loger ces personnages” (Vallet 2001: 454), simply does not make sense – not only is there a discontinuity in occupation with the ash layer following Houses 3, suggesting a period of abandonment, but Houses 2 and 1 belong to the Akkadian period, which carried major socio-political changes in the region. Furthermore, Vallet asserts that the walled quarter “rassemblait des gens d’un rang social extrêmement bas” (2001: 454), which can be dismissed on the basis of the numerous luxury goods in the Houses 2 and 1 assemblage, especially in the large central unit, and on the prestigious location of the quarter between the two main temples at Khafajah. On the whole, Vallet’s conclusions, as well as the excavators’ interpretation of the walled quarter as a military garrison are flawed when a detailed study of the stratigraphy and chronology of the site are taken into account along with a spatial analysis of the assemblage.
28. Both non-elite and elite burials from the Early Dynastic seem to have included grave goods and adornments reflecting items either belonging to the deceased (Matthews 2003: 176), or imitations of actual objects (for instance, the non-functional silver objects from the Royal Tombs of Ur). Foster describes Akkadian period burials similarly, arguing that the diversity of grave goods “suggests that most probably belonged to the deceased, rather than being gifts offered after death,” and that adorning items “are likely those worn by the deceased in his lifetime” (Foster 2015: 237). This does indeed seem to be the case during the EDIII and Akkadian periods at Khafajah where beads are found on the necks of the deceased, and there are three instances where daggers are found on or near the hip.
29. Watkins (1982) suggests these types of daggers are an earlier development at the Ur cemetery and fall out of use by 2300 BCE.
30. If this was indeed the case, it would be reminiscent of *janbiya* daggers in Yemen or *khanjar* daggers in Oman, or similar traditional daggers found elsewhere.
31. This view is based on both spears and axes being held by soldiers depicted on various artifacts such as the Standard of Ur, the Stele of Vultures, the Nasiriyah stele, the Naram-Sin stele, etc.
32. Only sketches of these fragments exist, but the blade appears to have a slightly different shape, with a curved bit instead of a point. The size and shape of these axehead fragments closely resembles the axeheads carried by two standard-bearers to the left of the Akkadian king Naram-Sin on the Naram-Sin stele.
33. Axes such as these are seen on the Sargon stele (Amiet 1976: 73), a diorite stele from Susa (Amiet 1976: 75), the Naram-Sin stele, and the Nasiriyah stele (tucked into some soldiers’ belts). It is possible that Kh. III 722 was such an axehead, based on its curvature and size, but the lack of two or three rings to attach it to a handle makes this rather unlikely.
34. Postgate also notes this focus on piercing weapons (1994: 249).
35. While there are no depictions of axes like Kh. III 737 and Kh. III 1109 on Akkadian monuments, there are nonetheless depictions of socketed axes on the Naram-Sin stele. Wedge-shaped axeheads with curved bits are held in the left hands of two soldiers carrying standards that appear on the far left side of the stele below Naram-Sin.

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