

CHAPTER 5 DISCUSSION AND CONCLUSIONS

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I. THE PEOPLE AND THEIR LAND: ENVIRONMENT, SUBSISTENCE, SETTLEMENT AND ETHNICITY⁹¹

Climate

The climate of the Southern Levant has been discussed in general in the previous volumes.⁹² Since the people's choice to settle at Tell Abu al-Kharaz was not only dependent on the site's specific topographic/strategic position but also on the climatic conditions, an overview of the climate from the end of the last glacial period to approximately the mid-first millennium BCE will be presented here. Emphasis will be put on the outgoing second and the beginning of the first millennia BCE.

After around 20000 BP the climate varied greatly, alternating between cold/humid and warm/dry. This can be deduced from findings from the "Soreq cave" which was discovered in 1968 near Nahal Soreq west of Jerusalem (see e. g. BAR-MATTHEWS *et al.* 1993). It is a karst cave which was formed by dissolution of the rock by water percolation. It has numerous types of stalactites, stalagmites, and curtains of flowstones. The speleothemes from this cave date from 17000 to 15000 BP. The lamina of speleothemes shows a high degree of variability. This variability, which reflects climate fluctuations, did not favour sedentary life in the drier parts of the Near East. It has been suggested that after ca. 15000 years BP the climate was increasingly becoming similar to the present Mediterranean regime of relatively cold humid winters and warm dry summers (ISSAR and ZOHAR 2007: *passim*).

Moving towards the end of the Chalcolithic period in the first half of the 4th Millennium BCE the data show quite an abrupt decline in precipitation around the mid-fourth millennium (Fig. 443).⁹³ A short period of increased precipitation followed, lasting approximately a century. After that the decline in precipitation continued and the lowest peak for the entire Hol-

ocene was reached around 3200 BCE. Shortly after this period Tell Abu al-Kharaz was settled for the first time in the Early Bronze Age IB period. This low-precipitation trend continued for about two centuries until quite abruptly the climate became cool and very humid around 3000 BCE which is the time when the Early Bronze Age societies of Tell Abu al-Kharaz flourished, which may be related to the climate (the Early Bronze Age city was abandoned about 2900 BCE⁹⁴ and not resettled before the end of the Middle Bronze Age; see FISCHER 2008a: 381). The cool and humid period lasted with a few interruptions for about seven centuries (ISSAR and ZOHAR 2007: 105). A short phase of drier climate occurred at approximately 2600 BCE and was followed by a more humid phase and again by abrupt ups and downs in the precipitation pattern of the region.

The second half of the third millennium BCE witnessed one of the most serious climatic events during the Holocene. Evidence gathered from all over the northern hemisphere of the world shows that the climate became warmer on a global scale towards the end of the millennium. In the Mediterranean countries and the Near East a period of about three to four centuries of climatic setbacks began, starting around 2400 BCE and reaching the peak of the dry period around 2200 BCE which lasted for about a century. The levels of the lakes dropped, perennial rivers turned into seasonally dry beds, the desert expanded and in many area soils became increasingly saline.

The climate became slightly more humid in the next two centuries, and at approximately 2000 BCE it began to deteriorate again, reaching a low from 1900 to 1800 BCE. After the 19th century BCE the climate improved, although not reaching optimal conditions which prevailed during certain parts of the third millennium BCE. It is, however, evident that these climatological improvements provided a stable base for the

⁹¹ Parts of the following discussion are included in FISCHER 2006a and 2008a (Chapters 8). However, certain information is repeated here for more convenient access to the crucial background.

⁹² FISCHER 2006a: 305 and 306; 325 and 326; FISCHER 2008a: 307 and 308; 329 and 330.

⁹³ Cf. though MIGOWSKI *et al.* 2006 who report a "major wet phase" 3600–1500 BCE. Their results are based on the study of Dead Sea sediments.

⁹⁴ Several earthquakes are suggested (see below and Table 83).

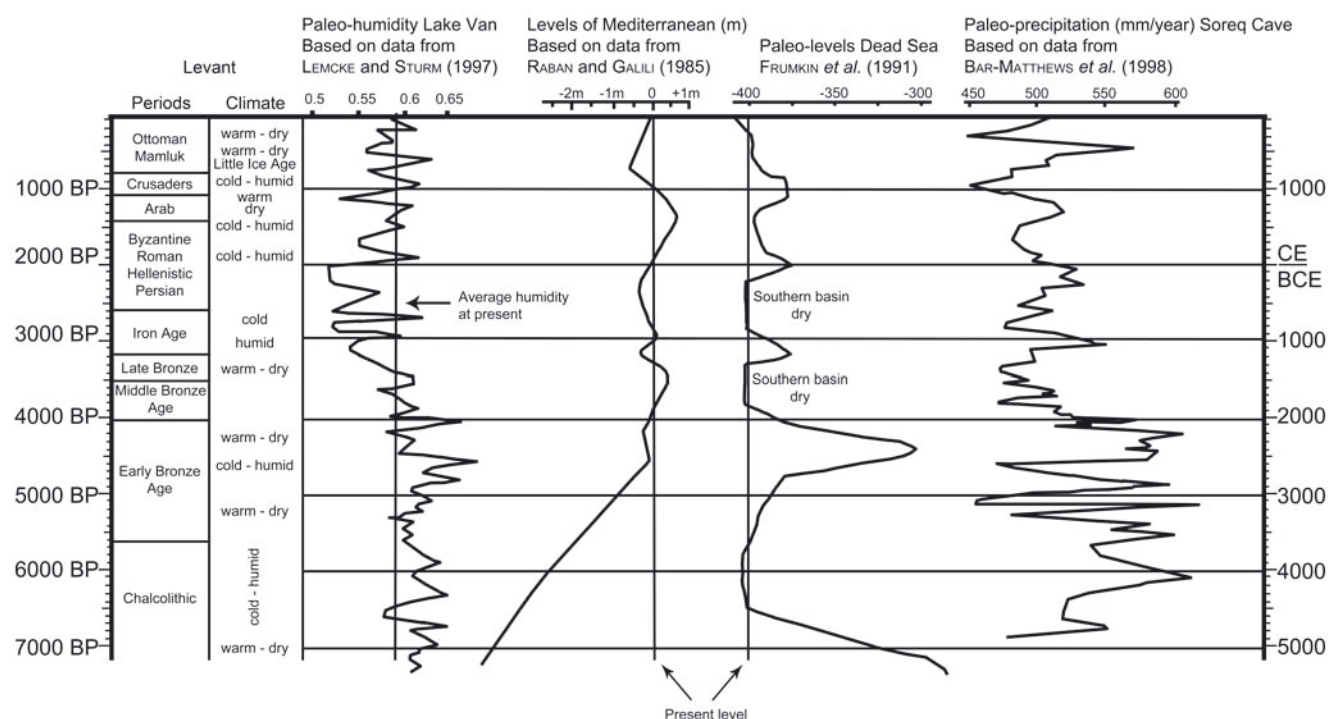


Fig. 443 Diachronic paleo-hydrology and climate in the Levant (courtesy A.S. Issar 2012; adjusted after ISSAR 2003: 9, fig. 1.3; drawn by T. Bürge)

thriving societies of the Middle Bronze Age. It was at the outgoing Middle Bronze Age, around 1600 BCE, that Tell Abu al-Kharaz was resettled again. From then on the site was occupied during the Late Bronze Age and the entire Iron Age until – intermittently – Islamic times.⁹⁵ A warm, dry phase started around 1600 BCE and continued until around the mid-second millennium BCE, i.e. the beginning of the Late Bronze Age.

The warm climate peaked during the mid-Late Bronze Age, viz. between 1500 and 1400 BCE. A slightly more humid climate soon followed, reaching the average line at ca 1300 BCE.⁹⁶ By 1200 BCE the warm spur switched to a cold and humid phase with its peak around 1100 BCE. This change in climate is global (ISSAR 2003: *passim*). It may be amongst the main causes of the movement of peoples from Eurasia

which most likely also had an effect on the Jordan Valley in general and Tell Abu al-Kharaz in particular. The earliest Iron Age I occupation at Tell Abu al-Kharaz corresponds to Phase IX around 1100 BCE. This date is in accordance with numerous radiocarbon dates from primary contexts at Tell Abu al-Kharaz (see Chapter 4). Phase IX produced a new type of architecture and Aegean/Philistine-type pottery, which appear for the first time at the site and which coincide with the period after the arrival of the s.c. Sea Peoples in the Southern Levant.⁹⁷

As concluded by ISSAR (2003: *passim*) and ISSAR and ZOHAR (2007: *passim*) it is of the utmost importance to consider the impact of climatic changes in relation to *where* they took place. In the Levant, the warm and dry periods of the Late Bronze Age in the middle of the second millennium BCE would have

⁹⁵ There are also stray finds of Mamluk origin after the Islamic (Abbasid) settlement.

⁹⁶ Cf. FINNÉ *et al.* (2011: 3169 and *passim*) who state that there are a number of problems which severely hamper interpretations and comparisons of records, especially when it comes to short-term, small-amplitude climate variability. Considering a longer-term variability they suggest for our area: mainly wetter than average 3400–2600 BCE; and for the period 2600 BCE–600 CE: drier conditions

mainly dominate the climate picture of the Eastern Mediterranean, but there are periods of increased moisture creating more benign climate.

⁹⁷ In this volume the term “Sea Peoples” is used in the sense of a wide-spread cultural phenomenon, a part of which is the southeast movement of peoples of various ethnic origin (at several occasions but mainly in the 12th century BCE). See Area 9; BÜRGE forthcoming.

negatively affected the desert margins, which at present receive between 200 to 400 mm of rain per year. At the same time, it would affect positively the flow of the Nile. Later on the cold and humid period, which became more extreme towards the end of the second millennium BCE at the beginning of the Iron Age, undoubtedly had a positive effect on most of the Levant although not on the regime of the Nile due to the weakening of the monsoon system.

The trigger for the movement of peoples through south-eastern Europe and the arrival of the Sea Peoples in the Southern Levant might have been the cooler climate, which had unfavourable effects in certain areas, e. g. northern Italy, the Balkans and western Asia. The vanishing of the Mycenaean culture, the decline and collapse of the Hittite empire (e. g. MÜLLER-KARPE 2009), the fall of Ras Shamra-Ugarit and Amurru (LAGARCE and LAGARCE 1988; KANIEWSKI *et al.* 2011), destruction layers in Cyprus (FISCHER 2011b; 2012b), all took place at the beginning of the 12th century BCE. These events are supposed to have been caused, at least partly, by various tribes of the Sea Peoples. We know from written sources that the Sea Peoples even attacked the then superpower, Egypt, in the 8th year of the reign of Ramses III, viz. 1175 BCE.

The paleo-climatic proxy data (Fig. 443 and references) show that after this period of cold and humid climate came a warmer and dryer period around 1000 BCE culminating in a low humidity peak around 850 BCE (cf. MIGOWSKI *et al.* 2006).⁹⁸ After that the climate steadily improved and reached quite favourable conditions in the Hellenistic period, i.e. around 300 BCE.

Today the Central Jordan Valley where the site is situated is a semi-arid to arid area, with an annual rainfall of no more than 250–300 mm, which comes in principle only during the winter months (cf. AL-FATAFTEH 1991). The average annual temperature in the area around Tell Abu al-Kharaz is approximately 23°C, and in the area of the Wadi al-Yabis, situated at a higher altitude, 22.3°C. The temperature during the winter months, which here include the period from late autumn to early spring, is fairly pleasant. The lowest temperature is in January, which has a daytime average of approximately 20°C and one of approximately 13°C when day and night temperatures are combined. These mid-winter temperatures may be considered quite pleasant but from time to time the

summer temperatures, which often exceed 40°C, are almost unbearable. The average day/night temperature in August is approximately 30.5°C.

The local “micro-climate” is a positive factor conducive to the choice and long use of this mound for settlement. The specific topography of the site has some beneficial influence on its climate. The isolated tell is situated on the foothills of the mountain plateau to the east, which rises to around 1000 m above mean sea level. The altitude of the site (summit –116 m), although only little more than 100 m above the Jordan Valley floor, which at this latitude is approximately 200–250 m below mean sea level, has a beneficial effect as regards cooling winds/temperature and – to some extent – precipitation.

Access to water

Access to water during the first phase of the occupation at Tell Abu al-Kharaz in Early Bronze Age IB until roughly 3000 BCE (Phases IA–B) must have been the most important prerequisite for the survival of a community in this area, especially during the summer months. This was obviously a very dry period, with the lowest precipitation peak ever in the settlement history of the site. A similar situation, although not of the same magnitude, occurred during the period of the outgoing Middle and the beginning of the Late Bronze Age when the warm and dry climate peaked between 1500 and 1400 BCE (Phases V and VI).

Perennial water sources were the Wadi al-Yabis immediately to the south of the site, and the River Jordan which runs a few kilometres to the west, roughly in the centre of the Jordan Valley. Nevertheless, the most important and reliable all-year water supply was from the easily accessible perennial Wadi al-Yabis during all periods including the Iron Age. Its source lies around 1100 m above mean sea level. It flows almost due west to where it joins the River Jordan, approximately 25 km from its source and 250 m below mean sea level. The highest annual precipitation in Jordan, which is approximately 600 mm, is recorded close to the headwaters of the Wadi al-Yabis (cf. MABRY *et al.* 1988: 275), which is quite remarkable considering the proximity to the semi-arid / arid zone of the Jordan Valley. It has been suggested (cf. FISCHER 2006a) that there may once also have been a channel through which water was transported from further up the Wadi al-Yabis, passing the site through the small valley between the site and the hillock to the south of it,

⁹⁸ MIGOWSKI *et al.* (2006: 427) suggest a “general climate deterioration” after 1500 BCE according to the sediment record of the Dead Sea.

which separates the site from the natural course of the Wadi al-Yabis further south. It is also very likely that the River Jordan, although at some distance from the settlement, was a life-saving water source which was certainly utilized during years of drought when the local water supply from the wadi might not have been sufficient. During the winter months, when precipitation was frequent, the small wadis around the tell were certainly utilized as the nearest water source, in addition to the springs in the eastern foothills.

Structures and objects from the Iron Age occupation of the site itself provide additional information on the water supply. Plastered cisterns served as water reservoirs throughout the year (cf. the cistern in Figs. 80, 81, 84, 86, which once contained approximately 50 cubic metres of water). During the winter months rainwater was collected in them through a system of small channels, whereas during the summer months they served as containers for water which was brought from the nearest water source. Several of the largest storage jars from the site could hold more than 100 litres of water and were used as water containers.⁹⁹ It has been suggested that the maintenance of the on-site water reservoirs by daily replenishment during the summer months was centrally organized in order to ensure the survival of the community on the site (FISCHER 2006a).

Food plants (Tables 76A and B)

The arable land, with alluvial/colluvial soil around the site, is fertile. Dry farming may have been possible and was certainly practised during certain periods of the year, but productive agriculture during the entire year was and is only possible with irrigation systems, traces of which are present everywhere in the plain surrounding the tell.

The species of the major cereal crops which are present in the floral remains of floated Iron Age soil are dominated by the grains of barley.¹⁰⁰ Einkorn/emmer wheat is present but in much smaller quantities than in the previous periods: the charred plant assemblage from the Iron Age is dominated by hulled two-rowed barley with only minor amounts of wheat. There is also evidence of the cultivation of millet and chickpeas (Fig. 304), legumes, grapes and olives. In a recently published study ZEIST *et al.* (2009) summarized the intensity of olive cultivation in the Hula area, which admittedly is at some distance from Tell Abu al-Kharaz but which is worthwhile to have in mind as regards the situation around the site in the Iron Age. From a sediment core of the Hula Lake they concluded that olive cultivation was thriving in the Early Bronze Age, declined in the Middle and Late Bronze Ages, and virtually disappeared in the Iron Age.

Charred plant remains from Tell Abu al-Kharaz			Phasing		
Latin name	Plant part	Common name	EB	MB/LB	IA
			Orig.volume (l.)		
			7,661	0,9	0,047
			Vol. sorted (l.)		
			2,711	0,9	0,047
Rumex sp.	nutlet	dock	3		
cf. Rumex sp.	nutlet	dock	1		1
Chenopodium sp.	nutlet	goosefoot etc.	4		
Amaranthus sp.	seed	amaranth	1		
cf. Amaranthus sp.	seed	amaranth	3		1
Caryophyllaceae/Chenopodiaceae	seed	campion/goosefoot families indet.	2		1
Fumaria sp.	fruit	fumitory	1		
Cruciferae/Leguminosae indet.	seed	brassica/legume	1		
Vicia/Lathyrus sp.	seed	vetch/tare/vetchling	4		1
Medicago sp.	seed	medick	15		

Table 76A The charred plant remains (total amount)

⁹⁹ Many rooms contained large storage jars, of which some were filled with grain and others were found “empty”. These “empty” jars were certainly water containers.
¹⁰⁰ It should be pointed out that the sorted volume of Iron Age plant remains is much lower than for the earlier periods.

This is demonstrated by the absence of non-cereal major crops in the tables. However, during the course of the project, and after the flotation project, further evidence has been collected (see e.g. Fig. 304). Additional flotation of Iron Age soil is planned.

Charred plant remains from Tell Abu al-Kharaz			Phasing		
Latin name	Plant part	Common name	EB	MB/LB	IA
			Orig. volume (l.)		
			7,661	0,9	0,047
			Vol. sorted (l.)		
			2,711	0,9	0,047
Trifolium campestre/dubium type	seed	trefoil	7		
cf. Lotus/Trifolium sp.	seed	trefoil/clover	1		
Scorpiurus muricatus L.	seed	-	146		
cf. Scorpiurus muricatus	seed	-	1		1
Leguminosae indet.	large seeded	legume indet.	10		
Leguminosae indet.	medium seeded	legume indet.	4		
Leguminosae indet.	small seeded	legume indet.	1		
cf. Leguminosae indet.	medium seed	legume indet.	4		
cf. Euphorbia sp.	seed	spurge	4		
Pistacia sp.	stone	pistacia	6		
Malva sp.	seed	mallow	3		
cf. Bupleurum sp.	fruit	hare's ear	10		4
Umbelliferae indet.	fruit	carrot family	1		
cf. Umbelliferae indet.	fruit	carrot family	1		
Buglossoides sp.	nutlet	gromwell+C100	5		
cf. Buglossoides sp.	nutlet	gromwell			1
cf. Labiate	caryopsis	mint family	1		
Lolium sp.	caryopsis	rye-grass	2167	224	1
cf. Lolium sp.	caryopsis	rye-grass	41		
Bromus secalinus type	caryopsis	brome grass	74		
Trisetum type	caryopsis	oat grass	12	16	
Gramineae indet.	caryopsis	grass indet.	71		10
Gramineae (large seeded)	caryopsis	large-seeded grass	15		
Gramineae (medium seeded)	caryopsis	medium-seeded grass	33		3
Gramineae (small seeded)	caryopsis	small-seeded grass	8		
cf. Scirpus sp.	nutlet	club-rush	1		
Indeterminate	seed/fruit	indeterminate	67		
Indeterminate	goat/sheep dung		1		
Mineralised seeds					
Silene gallica L.	seed	small-flowered catchfly	4		
cf. Ononis sp.	seed	restharrow	1		
Mercurialis annua L.	seed	annual mercury	2		
Echium sp.	nutlet	bugloss	1		
Modern contaminants					
Indeterminate	seed				4
Major crops - Non-cereals					
Ficus carica L.	pip	fig	15		
Vicia ervilia (L.) Willd.	seed	bitter vetch	1		
Vicia faba L.	seed	broad bean	14		
cf. Vicia faba	seed	broad bean	4	65	
Lens culinaris Medicus	seed	lentil	43		
cf. Lens culinaris	seed	lentil	3		
cf. Lathyrus sativus	seed	grass pea	3		
Linum usitatissimum L.	seed	cultivated flax	5		
Vitis vinifera L.	fruit	grape	5		

Table 76A continued The charred plant remains (total amount)

Charred plant remains from Tell Abu al-Kharaz			Phasing		
Latin name	Plant part	Common name	EB	MB/LB	IA
			Orig. volume (l.)		
			7,661	0,9	0,047
			Vol. sorted (l.)		
			2,711	0,9	0,047
Vitis vinifera L.	seed	grape	62		
Olea europaea L.	stone	olive	3		
Major crops - Cereals					
Triticum monococcum L.	glume base	einkorn wheat	4		
Triticum monococcum L.	spikelet fork	einkorn wheat	22		
Triticum cf. monococcum (two grained)	caryopsis	einkorn wheat	10168	4341	
Triticum cf. monococcum	glume base	einkorn wheat	42		
Triticum cf. monococcum	spikelet fork	einkorn wheat	38		
Triticum monococcum/dicoccum (two grained)	caryopsis	einkorn/emmer	2037	1536	
Triticum monococcum/dicoccum	caryopsis fragment	einkorn/emmer	4799	960	
Triticum monococcum/dicoccum (single grained)	caryopsis	einkorn/emmer	708	768	
Triticum monococcum/dicoccum	glume base	einkorn/emmer	917		1
Triticum monococcum/dicoccum	spikelet fork	einkorn/emmer	349		
Triticum monococcum/dicoccum	basal rachis node	einkorn/emmer	1		
Triticum cf. dicoccum	caryopsis	emmer wheat	1178	384	
Triticum cf. dicoccum	glume base	emmer wheat	303	16	
Triticum cf. dicoccum	spikelet fork	emmer wheat	562		
Triticum dicoccum (Schränk) Schuebl.	caryopsis	emmer wheat	19		
Triticum dicoccum (Schränk) Schuebl.	glume base	emmer wheat	12		
Triticum dicoccum (Schränk) Schuebl.	spikelet fork	emmer wheat	133		
Triticum dicoccum (Schränk) Schuebl.	rachis internode	emmer wheat	2		
Triticum dicoccum/aestivum	caryopsis	emmer/bread wheat	2	1	
Triticum durum/aestivum	caryopsis	macaroni/bread wheat	2		
Triticum cf. durum/aestivum	caryopsis	macaroni/bread wheat	4		
Triticum cf. durum/aestivum	rachis internode	macaroni/bread wheat	4		
Triticum sp.	caryopsis	wheat indet.	171		5
Triticum sp.	rachis internode	wheat indet.	4		
cf. Triticum sp.	caryopsis	wheat indet.	10		3
Hordeum sativum indet.	caryopsis	barley indet.	2510	1975	31
Hordeum sativum indet.	rachis internode	barley indet.	36		
Hordeum sativum (hulled)	caryopsis	hulled barley	1835	9985	18
Hordeum sativum L. (hulled - straight)	caryopsis	hulled barley (straight)	1287	3273	20
Hordeum sativum L. (hulled - twisted)	caryopsis	hulled barley (twisted)	20	64	1
Hordeum sativum (cf. hulled)	caryopsis	hulled barley	103		
Hordeum sativum (naked)	caryopsis	naked barley	8		
Hordeum sativum (cf. naked)	caryopsis	naked barley	114		
Hordeum sp.	caryopsis	barley sp.	19		
cf. Hordeum sp.	caryopsis	barley sp.C181	34		
Avena sp.	awn fragment	oat	2		
Avena sp.	caryopsis	oat	3		
cf. Avena sp.	caryopsis	oat	1		
Cereal indet.	caryopsis	cereal indet.	120	64	1
Cereal indet.	culm node	cereal indet.	2		

Table 76A continued The charred plant remains (total amount)

Charred plant remains from Tell Abu al-Kharaz			Phasing		
Latin name	Plant part	Common name	EB	MB/LB	IA
			adjust vol. (l.)		
			1,6	0,1	0,3
Latin name	Plant part	Common name			
Rumex sp.	nutlet	dock	9		
cf. Rumex sp.	nutlet	dock	2		3
Chenopodium sp.	nutlet	goosefoot etc.	1		
Amaranthus sp.	seed	amaranth	2		
cf. Amaranthus sp.	seed	amaranth	9		3
Caryophyllaceae/Chenopodiaceae	seed	campion/goosefoot families indet.	7		20
Fumaria sp.	fruit	fumitory	2		
Cruciferae/Leguminosae indet.	seed	brassica/legume	1		
Vicia/Lathyrus sp.	seed	vetch/tare/vetchling	10		8
Medicago sp.	seed	medick	39		
Trifolium campestre/dubium type	seed	trefoil	15		
cf. Lotus/Trifolium sp.	seed	trefoil/clover	2		
Scorpiurus muricatus L.	seed	-	298		
cf. Scorpiurus muricatus	seed	-	1		3
Leguminosae indet.	large seeded	legume indet.	10		
Leguminosae indet.	medium seeded	legume indet.	11		
Leguminosae indet.	small seeded	legume indet.	3		
cf. Leguminosae indet.	medium seed	legume indet.	1		
cf. Euphorbia sp.	seed	spurge	1		
Pistacia sp.	stone	pistacia	12		
Malva sp.	seed	mallow	7		
cf. Bupleurum sp.	fruit	hare's ear	5		13
Umbelliferae indet.	fruit	carrot family	3		
cf. Umbelliferae indet.	fruit	carrot family	1		
Buglossoides sp.	nutlet	gromwell	11		
cf. Buglossoides sp.	nutlet	gromwell			20
cf. Labiate	caryopsis	mint family	1		
Lolium sp.	caryopsis	rye-grass	2158	25	8
cf. Lolium sp.	caryopsis	rye-grass	164		
Bromus secalinus type	caryopsis	brome grass	152		
Trisetum type	caryopsis	oat grass	21	2	
Gramineae indet.	caryopsis	grass indet.	118		33
Gramineae (large seeded)	caryopsis	large-seeded grass	33		
Gramineae (medium seeded)	caryopsis	medium-seeded grass	92		10
Gramineae (small seeded)	caryopsis	small-seeded grass	21		
cf. Scirpus sp.	nutlet	club-rush	1		
Indeterminate	seed/fruit	indeterminate	150		
Indeterminate	goat/sheep dung		2		
Mineralised seeds					
Silene gallica L.	seed	small-flowered catchfly	1		
cf. Ononis sp.	seed	restharrow	5		
Mercurialis annua L.	seed	annual mercury	7		
Echium sp.	nutlet	bugloss	1		
Modern contaminants					
Indeterminate	seed				13

Table 76B The charred plant remains adjusted to represent 100 cc of total charred remains

Charred plant remains from Tell Abu al-Kharaz			Phasing		
Latin name	Plant part	Common name	EB	MB/LB	IA
			adjust vol. (l.)		
			1,6	0,1	0,3
Major crops - Non-cereals					
Ficus carica L.	pip	fig	35		
Vicia ervilia (L.) Willd.	seed	bitter vetch	1		
Vicia faba L.	seed	broadbean	18		
cf. Vicia faba	seed	broadbean	4	7	
Lens culinaris Medicus	seed	lentil	121		
cf. Lens culinaris	seed	lentil	12		
cf. Lathyrus sativus	seed	grass pea	4		
Linum usitatissimum L.	seed	cultivated flax	20		
Vitis vinifera L.	fruit	grape	9		
Vitis vinifera L.	seed	grape	144		
Olea europaea L.	stone	olive	6		
Major crops - Cereals					
Triticum monococcum L.	glume base	einkorn wheat	8		
Triticum monococcum L.	spikelet fork	einkorn wheat	36		
Triticum cf. monococcum (two grained)	caryopsis	einkorn wheat	1705	482	
Triticum cf. monococcum	glume base	einkorn wheat	78		
Triticum cf. monococcum	spikelet fork	einkorn wheat	40		
Triticum monococcum/dicoccum (two grained)	caryopsis	einkorn/emmer	916	171	
Triticum monococcum/dicoccum	caryopsis fragment	einkorn/emmer	874	107	
Triticum monococcum/dicoccum (single grained)	single caryopsis	einkorn/emmer	183	85	
Triticum monococcum/dicoccum	glume base	einkorn/emmer	863		8
Triticum monococcum/dicoccum	spikelet fork	einkorn/emmer	354		
Triticum monococcum/dicoccum	basal rachis node	einkorn/emmer	2		
Triticum cf. dicoccum	caryopsis	emmer wheat	489	43	
Triticum cf. dicoccum	glume base	emmer wheat	401	2	
Triticum cf. dicoccum	spikelet fork	emmer wheat	176		
Triticum dicoccum (Schränk) Schuebl.	caryopsis	emmer wheat	72		
Triticum dicoccum (Schränk) Schuebl.	glume base	emmer wheat	10		
Triticum dicoccum (Schränk) Schuebl.	spikelet fork	emmer wheat	166		
Triticum dicoccum (Schränk) Schuebl.	rachis internode	emmer wheat	4		
Triticum dicoccum/aestivum	caryopsis	emmer/bread wheat	4	1	
Triticum durum/aestivum	caryopsis	macaroni/bread wheat	2		
Triticum cf. durum/aestivum	caryopsis	macaroni/bread wheat	8		
Triticum cf. durum/aestivum	rachis internode	macaroni/bread wheat	8		
Triticum sp.	caryopsis	wheat indet.	323		22
Triticum sp.	rachis internode	wheat indet.	8		
cf. Triticum sp.	caryopsis	wheat indet.	44		60
Hordeum sativum indet.	caryopsis	barley indet.	1814	219	570
Hordeum sativum indet.	rachis internode	barley indet.	57		
Hordeum sativum (hulled)	caryopsis	hulled barley	761	1109	332
Hordeum sativum L. (hulled - straight)	caryopsis	hulled barley (straight)	670	364	350
Hordeum sativum L. (hulled - twisted)	caryopsis	hulled barley (twisted)	12	7	20
Hordeum sativum (cf. hulled)	caryopsis	hulled barley	163		
Hordeum sativum (naked)	caryopsis	naked barley	3		
Hordeum sativum (cf. naked)	caryopsis	naked barley	54		

Table 76B continued The charred plant remains adjusted to represent 100 cc of total charred remains

Charred plant remains from Tell Abu al-Kharaz			Phasing		
Latin name	Plant part	Common name	EB	MB/LB	IA
			adjust vol. (l.)		
			1,6	0,1	0,3
Hordeum sp.	caryopsis	barley sp.	49		
cf. Hordeum sp.	caryopsis	barley sp.	12		
Avena sp.	awn fragment	oat	4		
Avena sp.	caryopsis	oat	9		
cf. Avena sp.	caryopsis	oat	3		
Cereal indet.	caryopsis	cereal indet.	250	7	8

Table 76B continued The charred plant remains adjusted to represent 100 cc of total charred remains

Domesticated animals and game

Domesticated animals

There are plenty of grazing grounds for domesticated animals on the foothills, which cannot be used for agriculture. The results of our osteological investigation show that caprines, viz. goats and sheep, were most abundant in the Early Bronze Age. There is a fairly high degree of similarity between the Early and Middle/Late Bronze Age samples, but the findings suggest a different situation during the Iron Age: the still predominant caprines were significantly less important and cattle much more important than formerly. No clear contrast can be seen in the case of pigs although they are at their most abundant during the Iron Age. However, the figures for pigs show that they were obviously of subordinate economic value. Equid, dog, cat and fox remains attest the presence of ani-

mals whose importance to the human community may have lain in other attributes than their ability to provide meat.

Game

The quantity of remains of other animals hunted for food in the Tell Abu al-Kharaz assemblage is comparatively small, although fallow deer and gazelle were clearly of some significance. Deer are more abundant in the Iron Age sub-sample and this may run concurrently with the decrease in the relative abundance of gazelle. Bear and fox may have been hunted for meat and furs. Hippopotamus may also have been hunted locally, although the few items attributable to this animal, pieces of ivory, may equally well have been acquired by trade. Non-mammalian taxa were represented by small amounts of bird bone, and very small amounts of fish, crab, frog and tortoise/terrapin.

	Total ident. frags.	%	Weight (g)	%
Caprines	2250	69.1	18647	40.5
Cattle	679	20.9	21057	45.8
Pig	108	3.3	1444	3.1
Fallow deer	90	2.8	2625	5.7
Gazelle	67	2.1	547	1.2
Dog	18	0.6	588	1.3
Equid	15	0.5	901	2.0
Rodent	11	0.3	2	-
Cat	9	0.3	22	-
Fox	4	0.1	10	-
Brown Bear	2	0.1	148	0.3
Hippo	2	-	14	-
Total identified	3255	100.1	46005	99.9

Table 77 Overall representation of mammalian taxa at Tell Abu al-Kharaz based on total numbers of identified fragments and on bone weights

	EB		MB/LB		IA	
	n	%	n	%	n	%
Caprines	854	80.1	254	81.2	719	65.8
Cattle	180	16.9	53	16.9	318	29.1
Pig	34	3.0	6	1.9	56	5.1
Total	1068	100.0	313	100.0	1093	100.0

Table 78 Numbers and percentages of identified bone fragments of caprines, cattle and pig in the Early and Middle/Late Bronze Ages and the Iron Age

	EB		MB/LB		IA	
	g	%	g	%	g	%
Caprines	6493	52.2	1809	55.0	6522	38.1
Cattle	5515	44.3	1396	42.5	9923	57.9
Pig	431	3.5	83	2.5	695	4.1
Total	12439	100.0	3288	100.0	17140	100.1

Table 79 Weights and percentages of identified bone fragments of caprines, cattle and pig in the Early and Late Bronze Ages and the Iron Age

	Fallow deer		Gazelle	
	Fragments	Weight	Fragments	Weight
Early Bronze Age	1.2	1.6	2.4	1.8
Late Bronze Age	2.2	3.0	4.2	3.0
Iron Age	5.4	11.0	1.2	0.7

Table 80 Abundance of fallow deer and gazelle remains relative to those of the three most abundant taxa. Abundance of identified fragments and weights of identified fallow deer and gazelle are expressed as a percentage of the combined total of identified fragments/combined weights of caprines, cattle and pig for each period sub-sample

Building material and fuel

The relatively flat plateau of the mound, which is mainly of Marly limestone,¹⁰¹ is convenient for the construction of buildings. Building material is abundantly at hand all around the mound in the shape of smooth stones of convenient size for the construction of domestic, administrative, religious and defensive structures. Clay, the raw material for the production of mudbrick for the superstructures of these buildings and also for the manufacture of fired earthenware, was available in the nearby wadis. Forests for the supply of wood and fuel were more common during earlier periods, and also in the Iron Age, in the immediate vicinity of the site than today. However, even today

the vegetational situation in the Wadi al-Yabis area upstream is different from that in the Jordan Valley (the *Ghor*): in the *Ghor*, which is shaped mainly from post-Pleistocene deposition by different wadis, acacia predominates amongst the larger plants; the foothills with their predominantly colluvial soil are dominated by open scrub oak forest; in the Cretaceous limestone mountains, where terra rossa and rendzina soils are common, and where the Wadi al-Yabis has its source, a mixed forest of pine, oak and pistachio prevails. In consequence, wood for building material and fuel¹⁰² may be assumed to have been accessible within a reasonable distance.

¹⁰¹ There are also some conglomerates, especially in the western part of the tell where the bedrock is exposed.

Security and control

Apart from the favourable topographical situation as regards access to water, and plenty of arable land and grazing grounds, it is by no means surprising that precisely this mound was chosen by the first colonizers as a place for their settlement. It is one of the few restricted mounds in the area, with its fairly flat top rising approximately 60m above its surroundings, and it is totally isolated from the surrounding foothills which lead up the Transjordanian high plateau to the east. Therefore, the preconditions for defence and control of large parts of the Jordan Valley are optimal. Not only could a large area in all directions be surveyed from the top of the mound, but also the rocky western slope, facing the Jordan Valley, and the steep northern and eastern slopes are all natural obstacles to potential invaders. The weakest part of the site as regards defence is the southern part of the tell, which slopes only moderately downwards to the area of the Wadi al-Yabis. This part had to be secured especially, and the excavations revealed evidence that this had been done in the shape of massive defence systems during all periods. It also seems quite probable, on the evidence of the topographical situation and the defence systems of the site, that the walled part of the mound was utilized as a refuge in times of war: people who dwelt in the immediate surroundings of Tell Abu al-Kharaz moved there during unsafe times, not only for protection but also to take part in the defence of the town. The large supply of handy stones on the plateau, which could be utilized for defence, i.e. as missiles, was no doubt recognized as an asset.

The following area could be overlooked from the summit of Tell Abu al-Kharaz from the north-west to the south-west: the hills around Nazareth, Mount Tabor, Beth-Shean and the various parts of the Beth-Shean Valley, parts of the Harod Valley, the Samarian hills (today's West Bank) and the area north of Tell es-Sa'idiyeh. The view to the east is restricted by the rising hillocks – that is western Gilead which is the name of the landscape in the Old Testament. The eastern hillocks are the outcrops of the Transjordanian plateau further to the east.

The population and their land

The following discussion on the people of Tell Abu al-Kharaz and their habitat is meant as a continuation of the comprehensive argumentation in Chapters 8 of

Volumes I and II (FISCHER 2006a and 2008a). When these volumes were published in 2006 and 2008 the results of eleven seasons of excavations were presented (1989–2001). Since then another five seasons of excavations have taken place from 2008 to 2012. These five seasons have been devoted to the Iron Age settlement of the site in order to find and to expose the earliest Iron Age remains. The expedition has succeeded in finding and presenting the complete Iron Age sequence of the site, thanks to exceptional discoveries from the early Iron Age in 2009–2012.

Demographic studies of ancient societies of which no written sources have survived suffer from a highly hypothetical approach with many uncertainties. Several methods of estimating the population figures and the area of land which is needed for the survival of the societies of the site were presented by the author in Volumes I and II. It has been said that the total area which is occupied by the mound of Tell Abu al-Kharaz is 12 ha (30 acres), and the “flat”, walled, plateau approximately 1.5 ha (3.75 acres).

It is important to consider the number of people living permanently inside a well-protected city in comparison to the number of people dwelling there during unsafe times. It is most likely that as many people as possible tried to settle within the walled settlement for reasons of safety even during times of peace and not only when times became unsafe and the need for the security offered by the defence system became more urgent. In the case of Tell Abu al-Kharaz it is therefore suggested that there was quite a high population density within the limits of the town wall, which was no doubt further increased when people who lived outside the town moved into it for protection in times of danger, at the same time providing increased manpower for defence purposes.

When the upper plateau of Tell Abu al-Kharaz was settled for the first time in the Early Bronze Age a maximum population of roughly 100 permanently dwelling families is offered for the most densely occupied sub-periods of the Early Bronze Age, namely Phases IB and II. This is a hypothetical number supported by the material evidence (FISCHER 2008a: 332–337). Continued hypothetical considerations suggest a population of 450 individuals using the low family size estimate or 650 using the high estimate for the approximately 1.5 ha area on the summit.¹⁰³ In the publication on the Middle and Late Bronze Age of Tell

¹⁰² Amongst additional sources of fuel were certainly low vegetation, harvest and food residues, and dried dung.

¹⁰³ WATSON (1979) and ZORN (1994) suggested 4.5 individuals

per average family, and 6.5 individuals per average family is proposed by ANTOUN (1972).

Abu al-Kharaz (FISCHER 2006a: 331–335) we have demonstrated that a theoretical “all-time-high” population of 1000 individuals, for instance during unsafe times, would have had sufficient space for their dwellings on the walled plateau of the tell. We also demonstrated that the natural resources in the surroundings of the tell were adequate to feed at least such a population and their livestock. These figures are also valid for the Early Bronze Age and the Iron Age.

Another demographic approach is tested here by including the figures of the frequency of the most common find group at any excavation in the Levant or elsewhere, the ceramics. Therefore the amount of ceramic vessels/sherds and the length of occupation of the three “main periods” of Tell Abu al-Kharaz, which is based on radiocarbon dating, are shown in Table 81.

There are, however, some caveats which must be considered when the pottery statistics are interpreted. The main goal of the latest four seasons of excavation was to gather additional information on the Iron Age, i.e. the excavations stopped at a level where the earliest Iron Age occupation was completely exposed: a good example for this is the quite large Area 9 (East) of approximately 700 square metres. In general, contexts predating the Iron Age were left alone unless “islands” of earlier occupation appeared in the Iron Age strata (see the publications of such Late Bronze Age “islands” from Area 9 in BÜRGE in press; see additional islands with Late Bronze Age remains from Area 7 in SCHILK 2010). The same aims also guided earlier excavations when Iron Age strata were the main priority, for example, those in Area 3 (Trenches XII and XLIII) and Area 10 (Trench XLIV).

Another point to consider is the size of the hitherto opened area, which is roughly 3200 square metres from all seasons of excavation. This corresponds to approximately 20 % of the total plateau area, i.e. 80 % of the plateau has not yet been excavated.¹⁰⁴

It is also crucial when studying the statistics in Table 81 to consider the stratigraphic situation of the site. The most recent Iron Age occupation is in principle visible on today’s surface or can be reached just a few centimetres below the colluvial soil. There are only a few spots in the excavated area where Islamic (Abbasid) and, more rarely, Late Roman structures covered the Iron Age strata. This means that erosion, earthquakes and human activities have certainly contributed to the deposition of Iron Age material along the steep slopes or at the foot of the tell in places where excavations were not carried out. To sum up: on one

hand, the Iron Age material is over-represented as a result of certain project aims, and, on the other hand, superficial Iron Age strata are no longer preserved and consequently do not appear in the statistics. Nevertheless, it is most likely that the Iron Age material is overrepresented considering all the factors.

Period	No. of vessels/ sherds	Years of occupation
Early Bronze Age		
Phases IA-B	20804	
Phases IIA-B	23468	
Phases IIIA-B	2989	
mixed contexts	999	
Total	48260	200-250
Middle/Late Bronze Age		
Phase IV/1	1753	
Phase IV/2	1152	
Phase V	7969	
Phase VI	2193	
Phase VII	902	
Phase VIII	334	
Total	14303	300-350
Iron Age		
Phase IX	23914	
Phase X	6156	
Phase XI	8524	
Phase XII	18289	
Phase XIII	10505	
Phase XIV	21556	
Phase XV	209	
Phase XIV or XV	2906	
Total	92059	c. 500

Table 81 Distribution of vessels/sherds from Early Bronze to Iron Age (imports are included)

It can be seen from the statistics that Iron Age ceramics (92059) outnumber those from the Early, Middle and Late Bronze Age periods (14303 + 48260). It is also obvious that the Iron Age occupation (450–500 years) lasted longer than any of the earlier main periods, i.e. the Middle and Late Bronze Ages (300–350 years), and the Early Bronze Age (200–250 years). By adjusting the figures of the ceramics to a 100-year interval the situation is made different: approximately 21400 vessels/sherds are from the Early

¹⁰⁴ Additional unexcavated parts of the settlement where excavations stopped at a certain level are in all areas.

Bronze Age, just 4400 from the Middle and Late Bronze Ages, and 19400 from the Iron Age. This leads to several questions. Why are the figures for the Middle and Late Bronze Ages so low when those for the other two periods are roughly in the same range (the Iron Age figures being roughly 10 % lower than those of the Early Bronze Age)?

The following discussion is based on the assumption that each population used approximately the same number of vessels in each household during a given period of time. In the author's opinion the explanation for our figures is fairly simple: the Early Bronze Age civilization came to a violent end and the site was abandoned for more than a millennium. When the Middle Bronze Age people arrived after this long occupational lacuna they found a fairly flat surface without any obvious signs of earlier structures (with the exception of the defence structures). This flat surface was the result of precipitation, wind and erosion, and convenient as a stable surface for their new structures: they only rarely came in contact with earlier structures and most often only when they dug foundation trenches for their structures, i.e. the Early Bronze Age structures were left alone – to the benefit of Early Bronze Age archaeology!

Concerning the Middle and Late Bronze Age ceramics, which are “missing” in our statistics: this phenomenon also can sufficiently be explained. The arrival of the Iron Age people took place within a relatively short time after the “collapse” of the Canaanite Late Bronze Age culture. They must have recognized the Late Bronze Age structures which lay quite superficially or even on the surface. In order to create a flat and stable base for their own structures the Iron Age people were forced to remove older structures and certainly also finds. This can easily be proved in Area 9 East, where Late Bronze Age structures were removed and the lengthy Iron Age I cell-plan structure was built directly upon the city wall of the previous period. The conveniently nearby steep slope was certainly used to deposit the Late Bronze Age debris. There were just a few Late Bronze Age finds within the area of excavation, and these are mainly from the destruction layer of Phase V (Late Bronze Age IB after 1450 BCE; see FISCHER 2006a: 374, table 70). Further evidence to support this hypothesis is the area west of the Iron Age I compound of Area 9 East where Late Bronze Age “islands” were left alone by the Iron Age people: we were able to excavate amazingly well-preserved and colourfully decorated Late Bronze Age pottery from the destruction layer of Phase V (BÜRGE in press). The same can be said about the situation in Area 7 situated on the other, northern, side of the tell

where similar “islands” from Phase V were excavated (SCHILK 2010). This means that many of in particular the later Late Bronze Age structures, including their floors, were removed by the Iron Age settlers whenever Iron Age structures were built but others were left alone.

In consequence of these facts and plausible hypotheses it still seems that in the Early Bronze Age the city was most intensively occupied in comparison with the other two main periods of occupation but during a shorter time span compared with the Iron Age. The situation in the Middle and Late Bronze Ages cannot be sufficiently explained through the pottery statistics because of the listed possible explanations. Another fact to consider is the limited area of the plateau which is excavated, which means we do not know if the three periods are evenly distributed in the same pattern in the still untouched 80 % of the plateau area as in the excavated portions.

The people of Tell Abu al-Kharaz and their possible ethnic background

Stratigraphical observations point to a break in the settlement sequence after the last Late Bronze Age occupation of Phase VIII. Consequently, the settlers of Phase IX were immigrants, wherever they arrived from, whether they came from the immediate neighbourhood or from farther afield. This has to be kept in mind throughout the following discussion.

In order to discuss the possible ethnic background of the Iron Age I population of Tell Abu al-Kharaz of Phase IX we have to study the architecture and certain find groups and rely entirely on their interpretation. This involves some subjectivity because of the lack of relevant written sources.

An outstanding innovation during the earliest Iron Age occupation at the site is the architectural layout of the Phase IX compound, i.e. the cell plan of the structure (Figs. 250, 251A and B, 279, 452:2). The reconstructions of our cell plan structure make it obvious that the excavated remains in fact represent a basement which must have been accessed via ladders from the upper storey, because there are no external entrances to each pair of rooms, the rooms of each pair being connected via doorways. The reconstruction of the once existing upper storey (Figs. 279, 452:2), and, in particular, the position of one of the possible entrances in the northern wall, are hypothetical, since the upper storey has been destroyed. There is nothing like this structure in the immediately preceding Late Bronze Age Phase VIII or earlier Late Bronze Age phases at the site (viz. Phases VIII–V; FISCHER 2006a: 337–347). This specific architectural layout is also

unique in the Transjordanian Jordan Valley or the remainder of Jordan in the early Iron Age.¹⁰⁵

Our search for good parallels was not successful. Despite a number of differences, however, there is a structure at Tell el-ʿOreme/Kinneret on the north-western shore of the Sea of Galilee which very remotely resembles our compound (Complex I in Field I; MÜNGER *et al.* 2011: 77–78). The Kinneret complex, which has a less standardized layout than that from Tell Abu al-Kharaz, belongs to the local Phase V, which lasted from roughly 1050–950 BCE and was destroyed by an earthquake according to the excavators.¹⁰⁶ This is a later date than our radiocarbon-supported dates for the destruction event of Phase IX would permit. Phase V at Kinneret continues in many ways the layout of the previous Phase VI, which is the foundation phase of the Iron Age occupation at the site (starting around 1100 BCE; MÜNGER *et al.* 2011: 77–78). At least, both the Tell Abu al-Kharaz compound and that of Kinneret demonstrate centralized city planning.

In addition to the innovative architecture there are numerous objects which are foreign in design and material compared to the traditional Canaanite material which was prevalent at the site in the outgoing Late Bronze Age (see below). The mobile finds from Phase IX display unmistakable Philistine, Aegean, Cypriote, Phoenician and – to a limited extent – Egyptian influences. This concerns specific finds such as groups of ceramics, loom weights, a bronze wheel and a scaraboid (see below under the heading “3. Interregional synchronization”). Vessel shapes which display clearly identifiable Aegean influences are, for instance, pyxides of earthenware (Figs. 325, 326, 430) and alabaster (Figs. 346:3 and 4, 348), the double-pyxis with the false spout and basket handle (Figs. 325:8, 327, 430:8, 452:3), the strainer-jug with the basket handle (Figs. 305:2, 307, 411:5), and the cooking vessels of a closed shape, i.e. the cooking jugs (Figs. 338, 339 upper row, 340:1–3, 433:2–5, 434). Decorative elements on our ceramic material resemble Aegean patterns of decoration, for example, the concentric-semicircle pattern, which are common on numerous Late Helladic IIIC vessels from the Mycenaean sphere of culture (e.g. MOUNTJOY 1986: 198, fig. 263) and from Cyprus (FISCHER 2012b: 94, fig. 3:1). I suggest that

this Aegean-influenced pattern arrived with the Sea Peoples in the Levant and has been used on modified Canaanite shapes, for instance, on our jug with the thick white slip and the red-painted pattern of semi-circles and bands (Figs. 297:1, 298, 409:3, 452:6). The decorative pattern on our two pilgrim flasks with cup mouths (Figs. 321:1 and 2, 322, 323, 412:1 and 2), i.e. the centrally placed wheelspoke pattern and other details, is at home in Cisjordan and has been described as belonging to the Philistine sphere of culture (cf. DOTHAN 1982: 221, pl. 3).

Cooking jugs appear for the first time at Tell Abu al-Kharaz in Phase IX (Figs. 338, 339 (upper row), 340:1–3, 433:2–5, 434). They represent a hybrid type as the result of an amalgamation of the typical Aegean cooking jug of a closed shape and a flat base (compiled by YASUR-LANDAU 2010: 124–132), with the standard Canaanite cooking pot of an open shape with a rounded base. This hybrid type is represented in various sites in and around Philistia and other sites (e.g. BEN SHLOMO *et al.* 2008: 232, fig. 6, Type 7). The appearance of this type is dated to the later Iron Age I period but A. Maeir admits that an earlier appearance may be possible.¹⁰⁷ There is an exception to the flat-based standard Aegean cooking jug, namely cooking vessels standing on three legs with a convex base (see YASUR-LANDAU cited above). A find from Area 9, Room 10, Phase IX, may represent one of the legs of the tripod Aegean-type cooking pot (A in Fig. 260) but the remainder of the vessel is missing. It may be the case that this object – if it is the broken-off leg of a tripod Aegean cooking vessel – was reused in the basement as a tool or fell down as part of such a vessel when the upper storey of the compound collapsed, or is some other kind of tool/handle.

At Tell Abu al-Kharaz the open and the closed shapes were found together in the same rooms of the Phase IX compound (in five of the 21 rooms; see Table 82). There are 28 open cooking pots and nine closed cooking jugs from this building. It should be highlighted again that the cooking jug appears at Tell Abu al-Kharaz for the first time in Phase IX and was used only in this and the next phase, Phase X.

A highly interesting phenomenon is represented by the exclusive use of a new type of loom weight in Phase

¹⁰⁵ The Late Bronze Age II casemate system from Tell Abu al-Kharaz Phase VI (see FISCHER 2006a: 211, fig. 251), and suggested casemate system from Tall Ziraʿa from the 14th and 13th centuries BCE, are totally different (VIEWEGER and HÄSER 2007: 153–154). The Iron Age I structures from the latter do not resemble the cell-plan structures from our Phase IX; cf. *ibid.* 152, 160.

¹⁰⁶ To the best of the author's knowledge the published Kinneret dates are not based on radiocarbon (with reference to my meeting with S. MÜNGER in Bern, Switzerland, December 2011).

¹⁰⁷ Personal communication with A. Maeir (email 28 November 2012).

IX: loom weights from this phase are exclusively of the slightly spool-shaped type of unfired clay or, rarely, of the more cylindrical type of stone (Fig. 346:17–20). They were also used in Phase X and represent a chronological parallel to the use of the cooking jugs in Phases IX and X.

The spool-shaped type of loom weight is not an uncommon find in LH IIIC Tiryns and other contemporary mainland sites (RAHMSTORF 2003). In Chania, Crete, the oldest spool-shaped loom weight is from a LM IIIA2 context. It is not found in LM IIIB1 – obviously by chance since it appears again in LM IIIB2 (BRUUN-LUNDGREN 2011: 382). However, the majority of these spool-shaped loom weights from Chania come from LM IIIC contexts (BRUUN-LUNDGREN in BRUUN-LUNDGREN and WIMAN 2000: 176–178; BRUUN-LUNDGREN 2011: 382), that is from the 12th century BCE. In Cyprus, they appear in Kition alongside the pyramidal loom weights in LC IIIA contexts (KARAGEORGHIS and DEMAS 1985: pl. 201) and in Maa-Paleokastro, also in LC IIIA contexts (KARAGEORGHIS and DEMAS 1988: pl. 189). These contexts are roughly dated to the 12th century BCE. Parallels from Philistia include spool-shaped or cylindrical loom weights from Ashkelon (STAGER 1991: 36–37), Ashdod (DOTHAN and PORATH 1993: 64, 193, figs. 24:3–5, pl. 39:4), Qubur al-Walaydah (LEHMANN 2011: 294, 314, fig. 15), Gath (CASSUTO 2012: 469–470) and Tel Miqne/Ekron (SHAMIR 2007: 44, fig. 1). They are also reported from outside the nucleus of Philistine occupation.

An extraordinary find of metal is a part of a small bronze wheel which originally had eight spokes (see drawing with reconstruction and photograph in Fig. 344:12, 345). A similar wheel, but smaller and with six spokes, was found in Tell Qasile, Stratum XII (dated to the mid-12th century BCE; MAZAR 1986: 13–14, fig. 6:4). Bronze wheels with eight spokes are reported from Philistine Tel Miqne-Ekron where they are interpreted as parts of four-wheeled cult stands (DOTHAN 2002: 4–8 who refers to Cypriote parallels). Dothan's reconstruction is partly based on literal sources and partly on the evidence of two four-wheeled stands from Cyprus. One of the latter is most likely from Larnaka/Kition (uncertain provenance, dated to LC III; see CATLING 1964: 207–208 with discussion, pl. 35a–d; BUCHHOLZ and KARAGEORGHIS 1971: 158, 460, pl. 1685, a, b). The other one is of unknown provenance (see CATLING 1964: 208–210 with discussion, pl. 36a; BUCHHOLZ and KARAGEORGHIS 1971: 158, 461, pl. 1686; CATLING 1984: pl. XI:1, 2; now in the British Museum,

Inv. No. 1946.10.–17.1). Both examples have wheels with six spokes. Other wheels with four, six, or ten spokes are attested from Enkomi (compiled by CATLING 1964: 210, pl. 36e–g; *idem* 1984: pl. XI:3, 4, 6; all of them dated to the 12th century). The function of these stands remains unclear and it is doubtful if all the retrieved wheels or fragments of wheels can be reconstructed as parts of four-wheel stands. It is, however, likely that the tradition of making miniature wheels originates from Cyprus, and that our wheel was imported/bought by locals or came with immigrants.

The scaraboid with the stylized head of a horse instead of that of the back of the standard beetle is certainly an import (Figs. 341:1, 342, 457:11). It is a very rare find and only two ambiguous references to insecure contexts from the area around Philistia were found (see Appendix 4): one is from Beth-Shemesh (KEEL 2010a: 312–313, no. 216, dated to Iron Age I-IIA) and the other from Tell el-Far'ah South (KEEL 2010b: 422–423, no. 947).

Imports from Phoenicia and maybe further north are not uncommon finds in Phase IX. One is the globular jug with a double handle (Figs. 321:7, 412:7, 452:4). The decoration reflects both Phoenician and Cypriote influences. Other imports from the north are several small pilgrim flasks (Figs. 321:3–6, 324, 412:3–6).

The debate on the relationship between material culture and ethnicity is too well known to justify quoting all the prevailing (and differing) views. One can argue, for instance, that certain exotic and aesthetically appealing ceramics, which are alien to local tradition, could have been acquired by trade (see tough contra-arguments e.g. by TUBB 2000: 182). This is certainly not the case as regards the “exotic and aesthetic” value of cooking vessels. Cooking vessels do not belong to the group of objects which were acquired because of their aforementioned looks. It is rather the case that their shape and physical properties based on traditional cooking habits, i.e. how and for what these vessels should and could be used, were given priority when they were produced/acquired and utilized. There are several possible explanations for their ending up in our Phase IX compound: they were locally produced but display influences from the Aegean and Philistine spheres of culture,¹⁰⁸ traded, or brought there by their owners when they immigrated. The same can be said about the spool-shaped loom weights, which are a manifestation of a certain tradition in tex-

¹⁰⁸ Petrography has not yet been carried out.

tile production and which are widely accepted as being connected to the Sea Peoples. The origin of this type of loom weight is still under discussion and mainland Greece, Balkan and central Europe have been considered as places of their origin (cf. e. g. RAHMSTORF 2003 and 2005).

After presenting the most important traits of Phase IX, which comprise a number of novelties that contrast with the traditional Canaanite culture of the previous phases at Tell Abu al-Kharaz, can we now draw any conclusions upon the ethnicity of the people of Phase IX based on the material evidence? In the absence of reliable historical sources we have to trust our interpretation of the material culture if we wish to discuss ethnicity. It has to be stated that local finds which represent the continuation of the Canaanite culture of the outgoing Late Bronze Age outnumber objects which show influences from abroad. One could simply summarize this phenomenon as an amalgamation of local culture and foreign influences, i.e. from Cisjordan and further west, and from the central and northern Levant. Nevertheless, in my opinion during times of widespread migrations and increased mobility of individuals and groups, of which the 12th century BCE is an excellent example, one should not overlook the possibility of immigration of families or individuals to Tell Abu al-Kharaz from far away.

We know from written Egyptian sources and reliefs that groups of the Sea Peoples, for instance the Sherden, who are depicted with horned helmets, and the Peleset, with feathered headdresses, were incorporated into the troops of Ramses III as mercenaries in his battle against the Libyans only three years before they turned against the pharaoh himself (see selected refs.: SANDARS 1978: 118–119; BIETAK 1993: 293; PEDEN 1994; CIFOLA 1994; REDFORD 2000; CLINE and O'CONNOR 2003; cf. also YASUR-LANDAU 2010: 171–186). The pharaoh obviously took advantage of their fighting skills and their function seems to have been mainly a military one, at least as the Egyptian sources convey, but they must also have had other functions in times of peace of which we do not have any information. They certainly lived together with their families, probably integrated into Egyptian society, and their skills were considered an important source in unruly periods.

This scenario could also be applied to the situation at Tell Abu al-Kharaz half a century later when the specific skills of certain groups of Sea Peoples, for

instance in military competence including defence, building technique and handicraft, were in demand and possibly allowed them to become integrated into the society that settled at Tell Abu al-Kharaz in Phase IX. The question of whether individuals related to the Sea Peoples were responsible for the strict architectural layout of our cell plan compound is difficult to answer because good parallels are missing. It may even be the case that this building technique was an *in situ* invention of the people who arrived at this obviously abandoned site and had to organise themselves immediately as far as defence and accommodation were concerned: they built this compound as a combined defence and living quarter on this strategic spot on the edge of the upper plateau from where the Wadi al-Yabis could easily be accessed. A counterargument against the “*in situ* invention” could be that the skillfully composed supporting walls of the basement point to a constructor with experience from similar endeavours. This leads to the question to which at present no definite answer can be given: who and from where?

Let us return to the mobile finds which show influences from far away. An explanation which should not be overlooked could be that females, who were related to the Sea Peoples, came to Tell Abu al-Kharaz during the course of intermarriage with indigenous people and brought their traditional cooking and weaving techniques to the site.¹⁰⁹ It could be argued that pottery from Phoenicia may have been acquired as luxury goods because of its appealing appearance, or – in accord with the cooking pots and weaving tools – that this group of finds came to the site with another group of Sea Peoples, namely those who took the land route through Phoenicia on their way south, joining those who came by sea to the southern Levantine shore and eventually moving eastward to the Jordan Valley. If this hypothesis holds true it would mean that local people and two groups of immigrants lived in symbiosis at Tell Abu al-Kharaz in Phase IX. Summarizing the question of the ethnic background of the population of Phase IX: the ethnic picture certainly is extremely complex and there are at present no simple answers to the questions: exactly who, precisely where and accurately when.

“Foreign” elements became rarer in the find assemblages following the violent destruction of Phase IX, i.e. Phases X and XI. The cooking jug is still in use in Phase X but it vanishes in Phase XI. These observa-

¹⁰⁹ Females are assumed, based on the traditional view that cooking (see the new cooking jugs) and weaving (see the new spool-shaped loom weights) were carried out by women at that time.

tions may point to assimilation of the cultural traits which are usually connected to the Sea Peoples by the dominating local material culture. Comparing the fate of the cooking jugs with that of the Canaanite, wide open-shaped, cooking-pot type with the triangular rim: the latter is still in use in Phase X but it starts to vanish in Phase XI. By Phase XII it is very rare (or may be even just residual) and it was eventually and definitely superseded by the cooking pot with the medium-wide mouth in Phase XIII (Figs. 439, 440). This type is certainly the result of constant development, improvement and adaption to changed habits and/or habitat.

II. WRITTEN SOURCES, ADMINISTRATION AND POLITICS

Very little is known about the true nature of the administration and politics of the small urban centre of Tell Abu al-Kharaz which is based on written sources from the Iron Age. The few ostraka from our Iron Age strata do not enlighten us about this subject. Other written sources, even those of secondary significance, for instance Egyptian texts dealing with nearby urban centres such as Pella or Beth-Shean, are scarce. Written sources from Beth-Shean are from the outgoing Late Bronze Age and the beginning of the Iron Age but they are not of any value for the nearby Tell Abu al-Kharaz (see the overview with further references in MAZAR 2009a: 5, 7–11). The same can be said about the situation at Pella (SMITH and POTTS 1992: 83).

The closest we can come to written sources dealing with the Iron Age of this specific area and period is the Old Testament. Few scholars today doubt that Old Testament texts related to the Iron Age reached their present form earlier than the end of the Iron Age or even later. Consequently the reliability of these texts concerning events which happened hundreds of years earlier can be questioned but – with a lot of reservation – they should maybe not be rejected as pure fiction. Therefore the events in which the ancient landscape of Gilead and specifically the town of Jabesh Gilead played an important role in Old Testament narratives will briefly be presented here.

The name Jabesh Gilead has been preserved in the name of the Biblical landscape Gilead and the Wadi al-Yabis, a tributary of the Jordan River just south of Tell Abu al-Kharaz and approximately 6 km south of Pella. The extent of the region of Biblical Gilead is not exactly defined. It covers approximately today's North-West Jordan from the Wadi al-Yarmouk at the Syrian border in the north to, in the south, the Wadi

al-Mojib (River Arnon) east of the Dead Sea (cf. OTTOSON 1969: 9). Although expressing some reservations the present author has referred in the previous two volumes to GLUECK's (1951: 268–275) discussion of the possible identification of Tell Abu al-Kharaz with the city of Jabesh Gilead (FISCHER 2006a: 19; FISCHER 2008a: 19). This city is mentioned several times in the Old Testament (I Sam. 11:1–13; 31: 10–13; II Sam. 2:5–6; 21:12; I Chron. 10:11–12; Judges 21:8–14).

The author's position is a long way from that of earlier generations of archaeologists who tried to identify any site of excavation in the Southern Levant with possible candidates in the Old Testament. Nevertheless, since the site's identity has been discussed at length by others I will refer to this discussion and add new archaeological evidence which has been unknown to the people discussing the location of Jabesh Gilead. Eusebius of Caesarea (c. 263–339 CE; *Onomasticon* 110:11–13) claimed that Jabesh Gilead is six Roman miles from Pella on the road to Gerasa (Jerash). This claim by Eusebius could at best refer to several candidates. It is not unlikely that by his time the memory of Jabesh Gilead had vanished and his placing of Jabesh Gilead was as arbitrary as that of other researchers after him who identified Tell al-Maqlub with Jabesh Gilead. Tell al-Maqlub lies along the Wadi al-Yabis some 6 km east of Tell Abu al-Kharaz in quite an isolated area with no direct access to the Jordan Valley. Nevertheless, none of those who participated in this discussion had access to properly classified archaeological material, i.e. material from the first half of the Iron Age. In 1989 during the author's survey at Tell al-Maqlub Iron Age sherds were found on surface although very much corroded. These sherds did not permit any proper classification facilitating placement in the Iron Age sequence. In contrast, we know from our excavations at Tell Abu al-Kharaz that in principle the entire Iron Age sequence, anywhere in which the following narratives should be placed, is represented.

Glueck claims that Tell Abu al-Kharaz is the only site which agrees with all Biblical narratives concerning Jabesh Gilead and should be identified with it. He refers to Saul's battle against the Ammonite Nahash who besieged Jabesh Gilead. He argues that the distance between the area where Saul assembled his army in order to fight the Ammonites at Jabesh Gilead/Tell Abu al-Kharaz is much shorter than that to Tell al-Maqlub. The time aspect of this story in the Old Testament of the battle at Jabesh Gilead is in favour of Tell Abu al-Kharaz. He also points to the general topographic position of Tell Abu al-Kharaz in compari-

son with that of Tell al-Maqlub. The superior position of Tell Abu al-Kharaz from where large parts of the Jordan Valley including Beth-Shean (see below) can be overlooked is an even better argument. Tell al-Maqlub is much more remote from the Jordan Valley and is out of sight of events which have taken place in the Jordan Valley.

The proximity of Tell Abu al-Kharaz to Beth-Shean, some 15 km to the north-west of Tell Abu al-Kharaz, is another argument of Glueck. When Israel's first king Saul and his sons were defeated by the Philistines at Mount Gilboa their bodies were impaled on the city walls of Beth-Shean according to the narratives of the Old Testament. This battle, if historically correct, can probably have occurred around 1000 BCE (see MAZAR 2012: 38) which corresponds to our Phase X. The city of Beth-Shean is visible from Tell Abu al-Kharaz but not from the quite distant Tell al-Maqlub. The inhabitants of Jabesh Gilead then stole their bodies from the walls of Beth-Shean, brought them to Jabesh Gilead, burned them and buried them there. Because of safety reasons all this was carried out during one night in a hostile area, which would not be possible if they started from and returned to Tell al-Maqlub via a steep mountain path.

It is in fact impossible to decide whether these Old Testament narratives are pure fiction or refer to events which in theory could have taken place or been written down as modified tales of real events in an altered time frame. In a recent article MAZAR (2012) discusses the events which led to the defeat of King Saul in the battle against the Philistines and what happened to his and his sons' bodies after the battle at Mount Gilboa. The problem – as he pointed out – is that the walls from where they hung down are missing today. However, according to Mazar, they could have been removed when the Romans built their city at lower Beth-Shean.

Another narrative in the Old Testament mentions that the people of Jabesh-Gilead did not join the expedition of the Israelite tribes against Benjamin and as punishment their city was destroyed and their maidens seized and given to the Benjamites.

In conclusion, none of the written sources provide usable information concerning the administration and politics of Tell Abu al-Kharaz in the Iron Age.

III. ECONOMY, EXCHANGE OF GOODS AND COMMUNICATION ROUTES

The main sources of the prosperity of the Iron Age population of Tell Abu al-Kharaz were horticulture and cattle-breeding, and trade. The botanical analy-

ses demonstrated the species of the major cereal crops which are present in the floral remains of floated Iron Age soil and are dominated by the grains of hulled two-rowed barley. Einkorn/emmer wheat is also present but in much smaller quantities than in the previous periods. There is also evidence of the cultivation of millet. Other products of economic importance were grapes, olives, chickpeas and other legumes.

Fertile grazing grounds for domesticated animals are everywhere in the vicinity of the site. The results of our osteological investigation show that caprines, viz. goats and sheep, were most abundant in the Early Bronze Age. There is a fairly high degree of similarity between the Early and Middle/Late Bronze Age samples, but the findings suggest a different situation during the Iron Age: the still predominant caprines were significantly less important and cattle much more important than formerly. No clear contrast can be seen in the case of pigs although they are at their most abundant during the Iron Age. However, the figures for pigs show that they were obviously of subordinate economic value. Equid, dog, cat and fox remains attest the presence of animals whose importance to the human community may have lain in other attributes than their ability to provide meat.

The quantity of remains of other animals hunted for food in the Tell Abu al-Kharaz assemblage is comparatively small, although fallow deer and gazelle were clearly of some significance. Deer are more abundant in the Iron Age sub-sample and this may run concurrently with the decrease in the relative abundance of gazelle. Bear and fox may have been hunted for meat and furs. Non-mammalian taxa were represented by small amounts of bird bone, and very small amounts of fish, crab, frog and tortoise/terrapin.

Surplus from horticultural products and from gathering were certainly traded. Wood from the forests to the east was an additional trading resource. Trade in incense might have flourished. Traded animal products were another source of income. Products from handicraft could also have been traded. These included textiles, locally produced vessels of earthenware, beadwork, basketwork, needlework on fabric and rawhide, stoneworking and woodworking.

Iron ores are not far away from the site in the eastern hillocks towards the Transjordanian plateau. There is evidence, especially from the eastern part of Area 7 (workshop Area 7; see Chapter 2) that iron objects were produced there. These are dominated by arrowheads. We found remains of a destroyed furnace and small casting installation, and traces of a blacksmith's activities. It also seems that copper/bronze was cast and worked in this workshop.

All these products were traded for coveted goods, for instance, copper and bronze which was imported because there are no copper ores in the area. Other imports are ceramics from Cisjordan, Phoenicia and Cyprus. These vessels could have been imported for their contents but it seems most likely that they were brought to Tell Abu al-Kharaz because of their “exotic” and appealing appearance, especially where the ceramics from Cyprus and Phoenicia are concerned. These attractive goods might also have come from caravans passing the valley from which the rulers of Tell Abu al-Kharaz claimed tribute.

The question of which trading routes were used by the people of the settlement has its answer in the strategic position of the site in the Jordan Valley. An important trading route was undoubtedly the north-south Transjordanian main road, which connected Tell Abu al-Kharaz, passing Pella, to Tell es-Shuna, and further north to the Sea of Galilee, 35 km north of the site, and from there to Lebanon and Syria. To the south this trading route passed Tell es-Sa‘idiyeh and Tell Deir ‘Alla towards the Dead Sea some 70 km south of Tell Abu al-Kharaz. There were also trade routes from the northern shore of the Dead Sea to Cisjordan and the southern Shephelah and the western Negev. Another similarly important trade route was the one to the north-west, which made it possible to reach Beth-Shean, Megiddo and the Mediterranean Sea in the Mount Carmel area, a distance of approximately 80 km or an expected journey of 2–3 days for traders.

IV. ARCHITECTURAL FEATURES AND INSTALLATIONS (Figs. 444–451)

It has been shown in Chapter 2 that there are seven architectural phases of Iron Age occupation, i.e. Phase IX to XV. In several cases when it was not possible to divide with any certainty the architecture of one phase which was used in two phases they are schematically depicted in both phases. Only summarizing remarks will be presented here since the architectural remains of the seven Iron Age phases have been described in detail in Chapter 2.

The defence system of the Iron Age occupation at Tell Abu al-Kharaz is based on the incorporation of structures which were originally built in the Early Bronze Age, and later on reused and enhanced in the Middle and Late Bronze Ages. One example is from Area 2 North-West: there is a tower-like structure which was (re)used in Phase XII and most likely even

later (Fig. 80). It is at least 10 m × 8 m in size with walls more than 1 m wide and was built against the Early Bronze Age city wall (W439 in Fig. 80). The foundation of this structure, which has stone-paved internal rooms, certainly goes back to the Late Bronze Age and maybe even to the later part of the Middle Bronze Age. Another example is from Area 7 (FISCHER 2006a: 182, fig. 220) where the Late Bronze Age city wall functioned as the base for Iron Age defence structures. Yet another example is from Area 9 East where the Iron Age structures were built directly on the levelled Late Bronze Age I city wall from Phase V which rested on the city wall from Phase II, i.e. the Early Bronze Age II.¹¹⁰

There was in fact no need for the Iron Age settlers to build totally new defence systems because of the presence of convenient structures from the previous periods of occupation which were levelled and altered, and rebuilt. The Early Bronze Age II city wall, for instance, is 4–5 metres wide and still preserved to a height of approximately 3 m at several spots (FISCHER 2008a: 338, fig. 312). On top of this wall were the Middle/Late Bronze Age city walls with another metre or so. In addition, newly built Iron Age defence structures are visible in Area 2 as a tower belonging to Phase XII (Fig. 63) and another (rebuilt) one in the same area in Phase XIII (see Fig. 65). Area 7 shows a similar pattern: there is a tower in Phase XII (Fig. 146) and on top of this another one with a slightly different orientation in Phase XIII (Fig. 157). From Phase XIII there is evidence of a possible small gate in Area 1. This gate is connected with a stone-paved room for soldiers who guarded it.

Summarizing the observations on the defence systems of the Iron Age phases, it can be stated that the city was extremely well defended: the steep slopes in addition to man-made structures would have made it fairly difficult to conquer the city. Nevertheless, certain massive destruction layers have most likely been caused by assailants (see below). It is however clear that attacks must have resulted in considerable loss in manpower by any assailant before the city could be conquered.

There seems to be a diachronic trend as regards the intensity of usage of the upper plateau area of the tell for building activities. The amount of architectural remains bears witness to an intensive usage of the southern part of the tell in the oldest Iron Age phases (IX–XI), whereas the northern and western parts

¹¹⁰ See Figs. 250, 251A and B where the southern wall of the Iron Age I compound rests on the city wall of the Late Bronze Age.

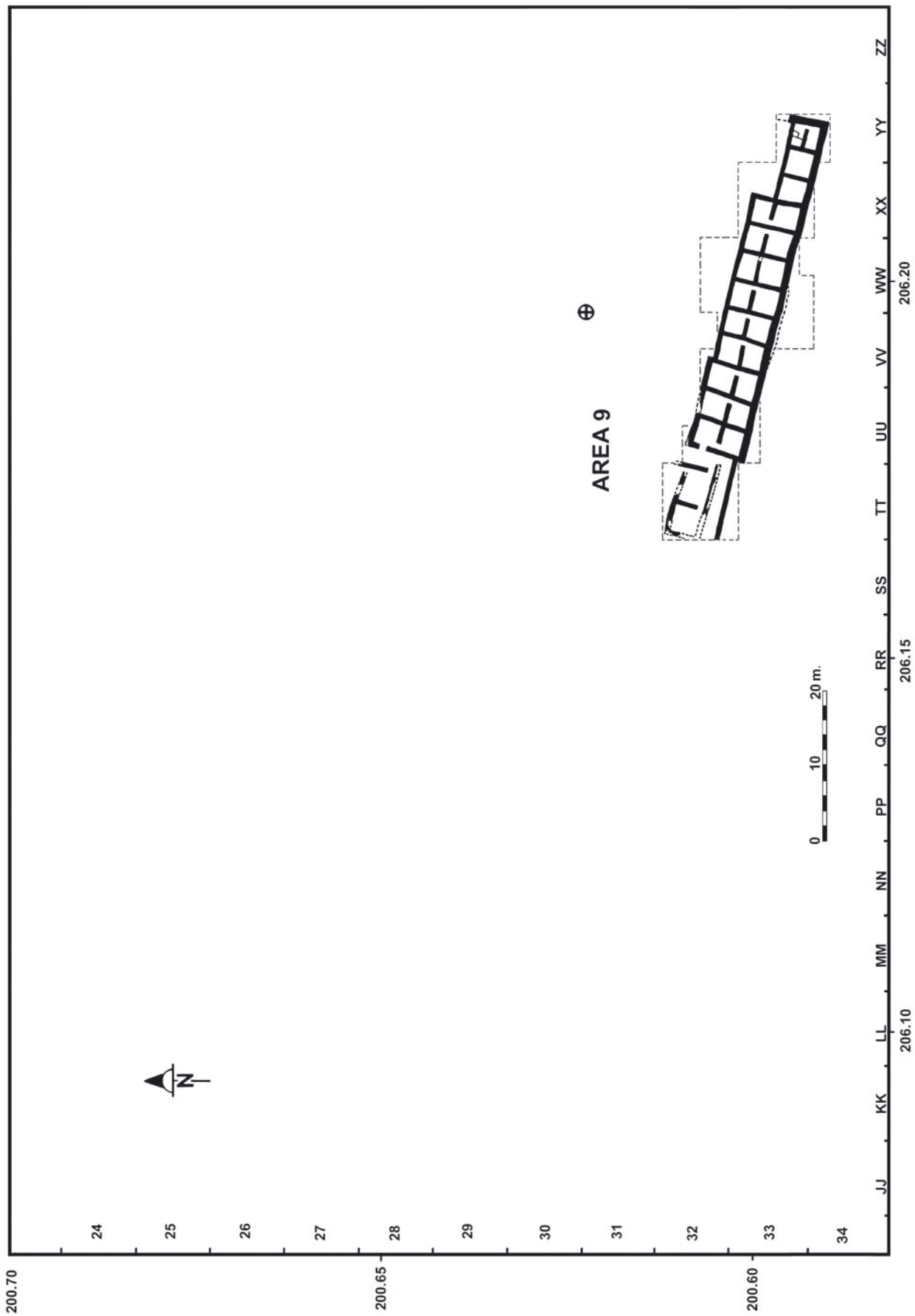


Fig. 444 Schematic overview of the architecture of Phase IX (compiled by T. Bürge)

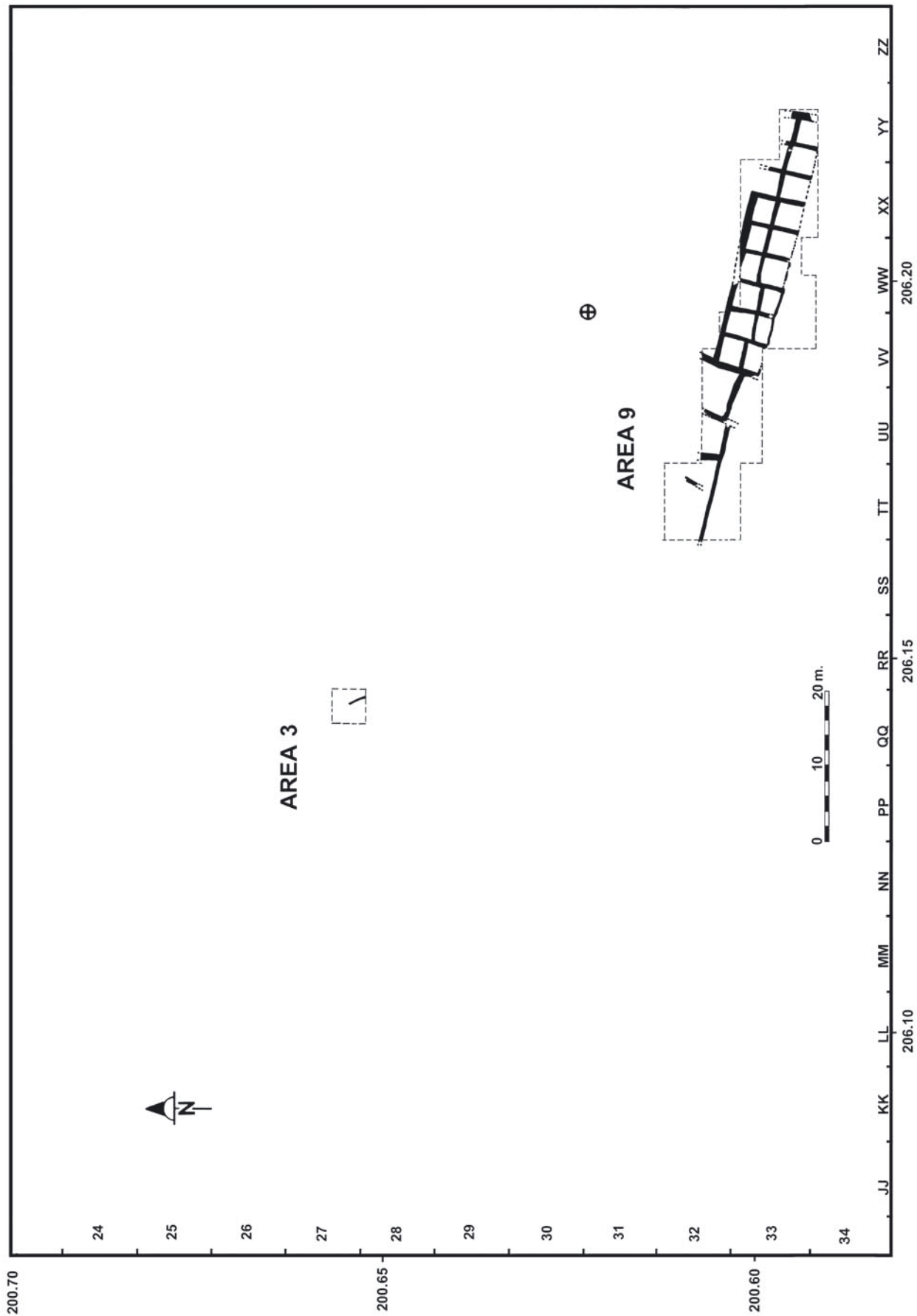


Fig. 445 Schematic overview of the architecture of Phase X (compiled by T. Bürge)

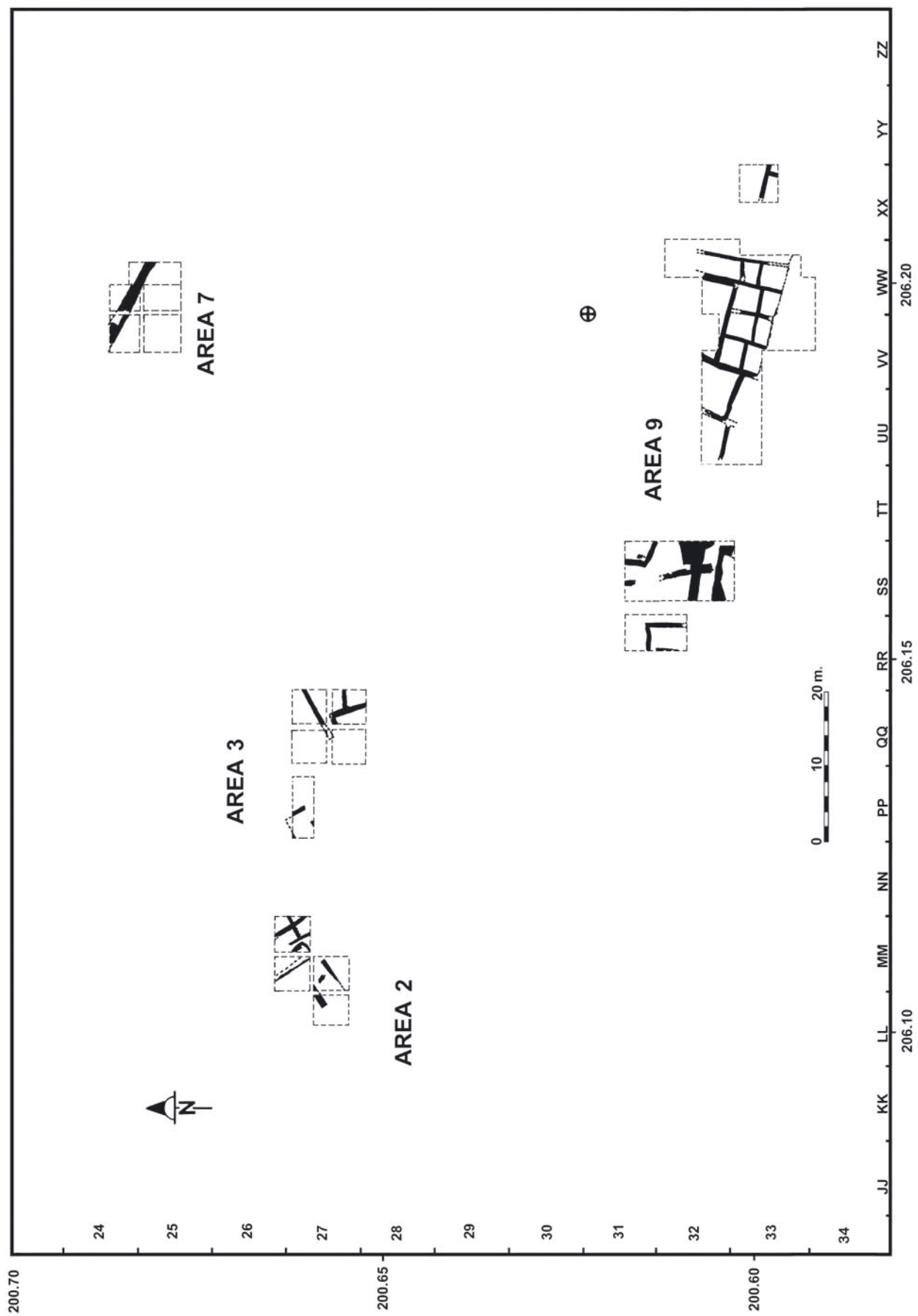


Fig. 446 Schematic overview of the architecture of Phase XI (compiled by T. Bürge)

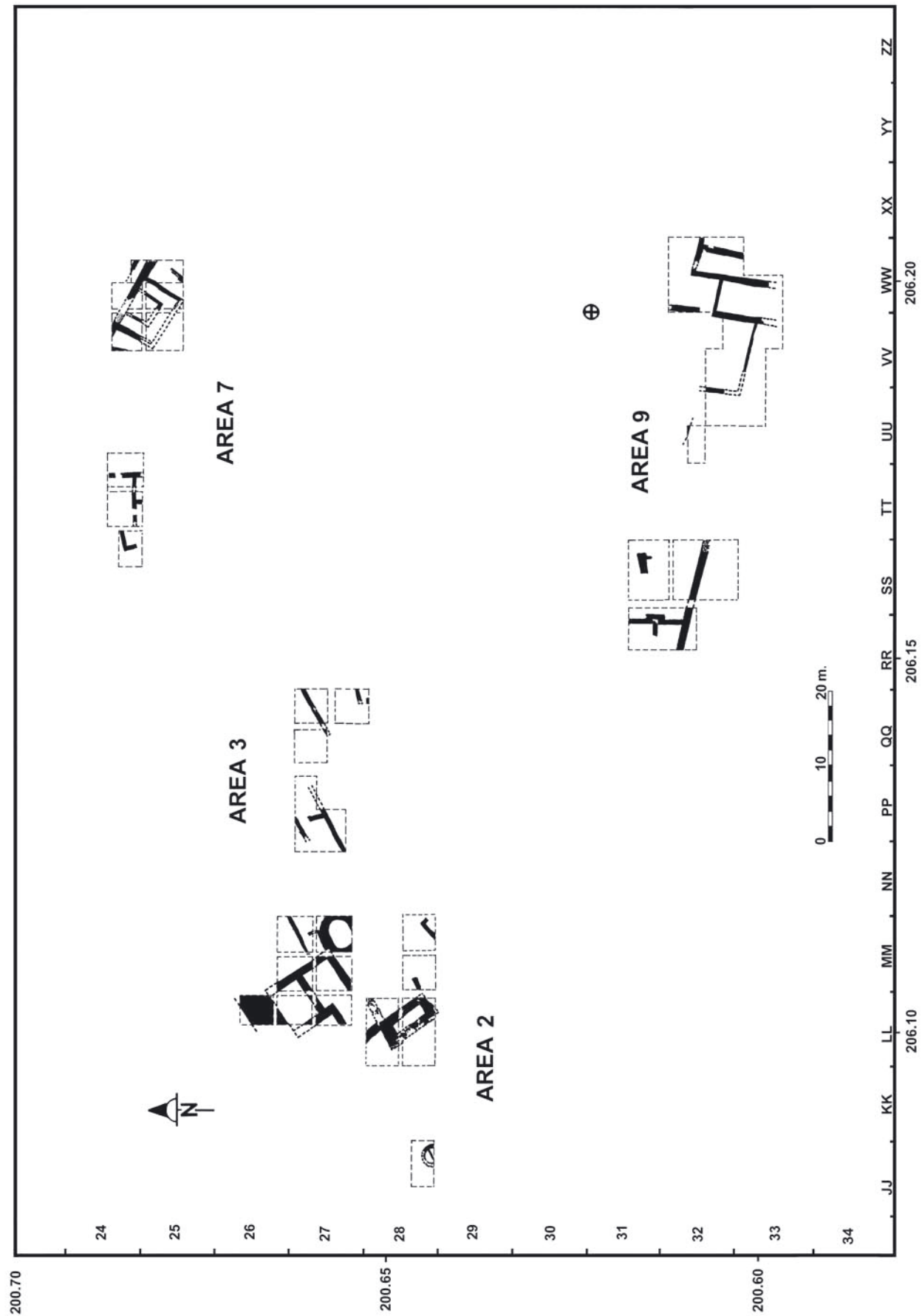


Fig. 447 Schematic overview of the architecture of Phase XII (compiled by T. Bürge)

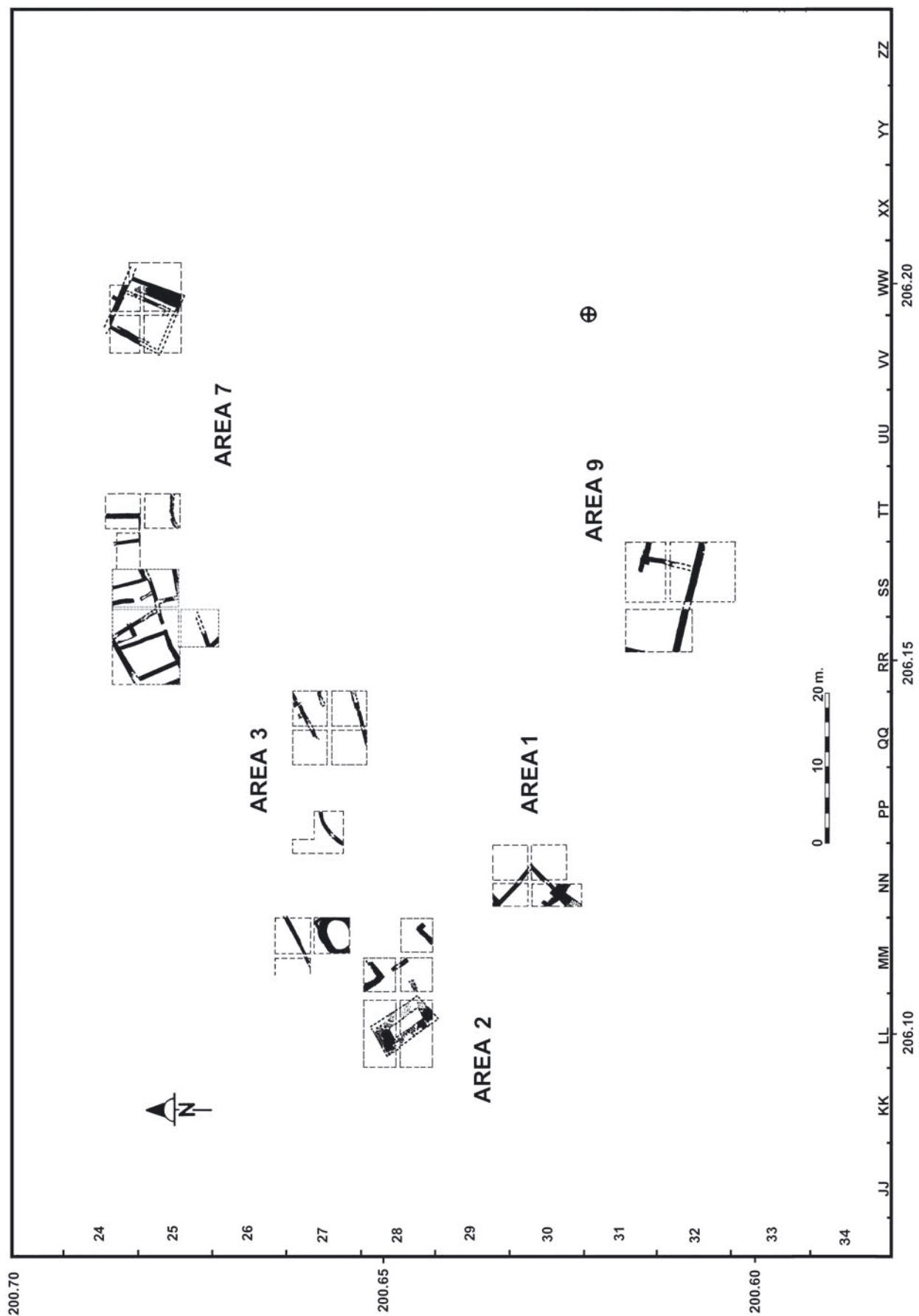


Fig. 448 Schematic overview of the architecture of Phase XIII (compiled by T. Bürge)

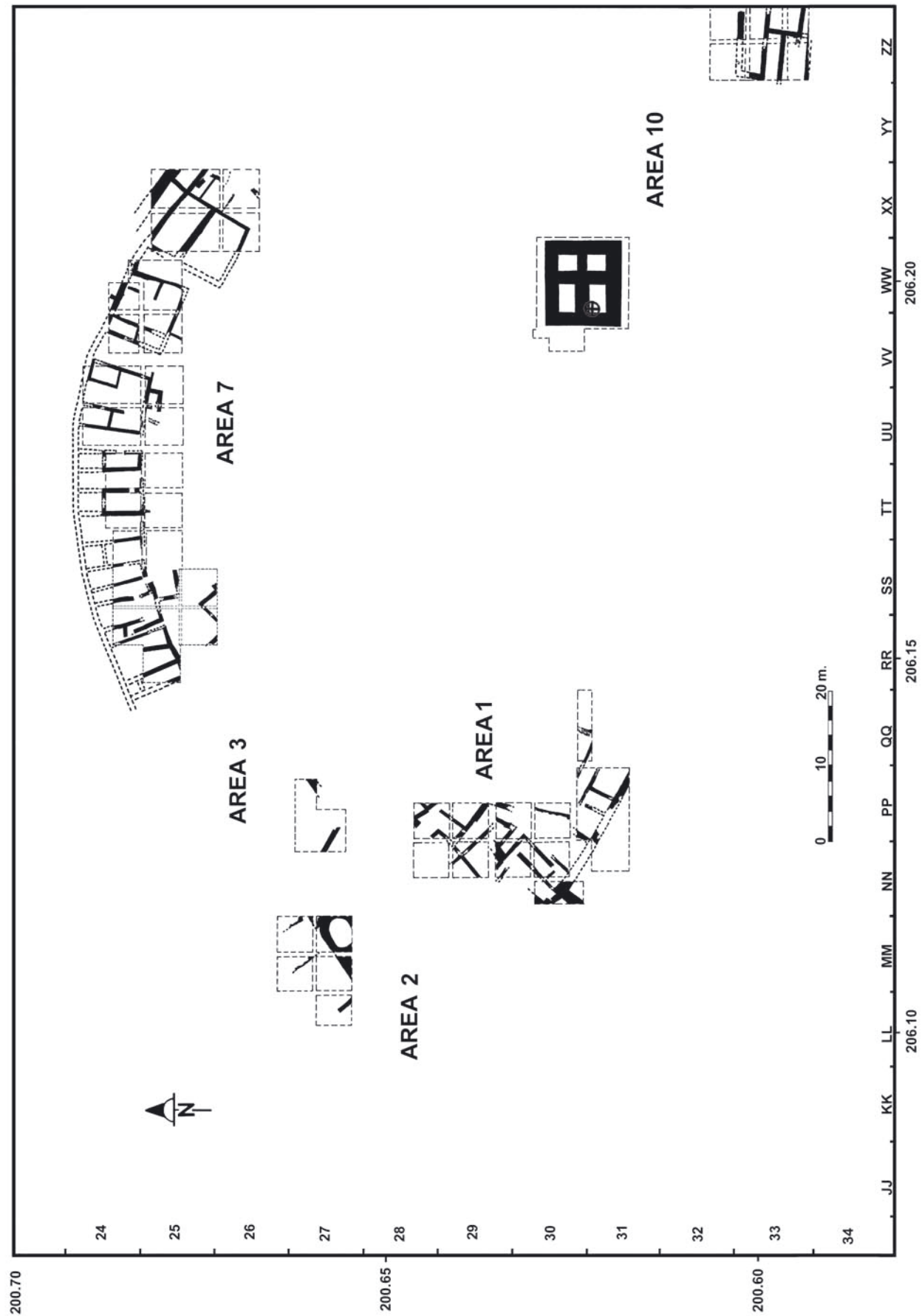


Fig. 449 Schematic overview of the architecture of Phase XIV (compiled by T. Bürge)

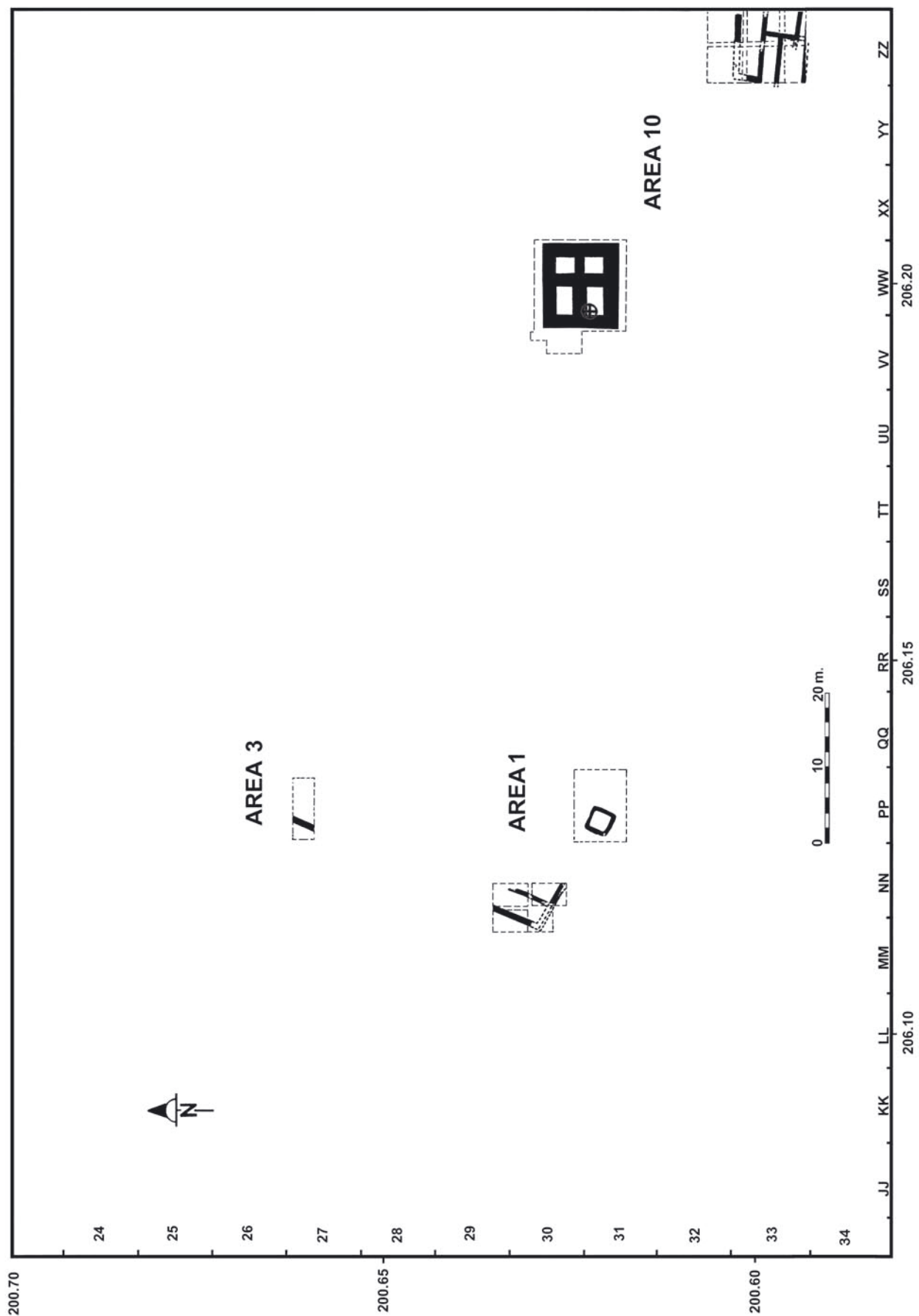


Fig. 450 Schematic overview of the architecture of Phase XV (compiled by T. Bürge)

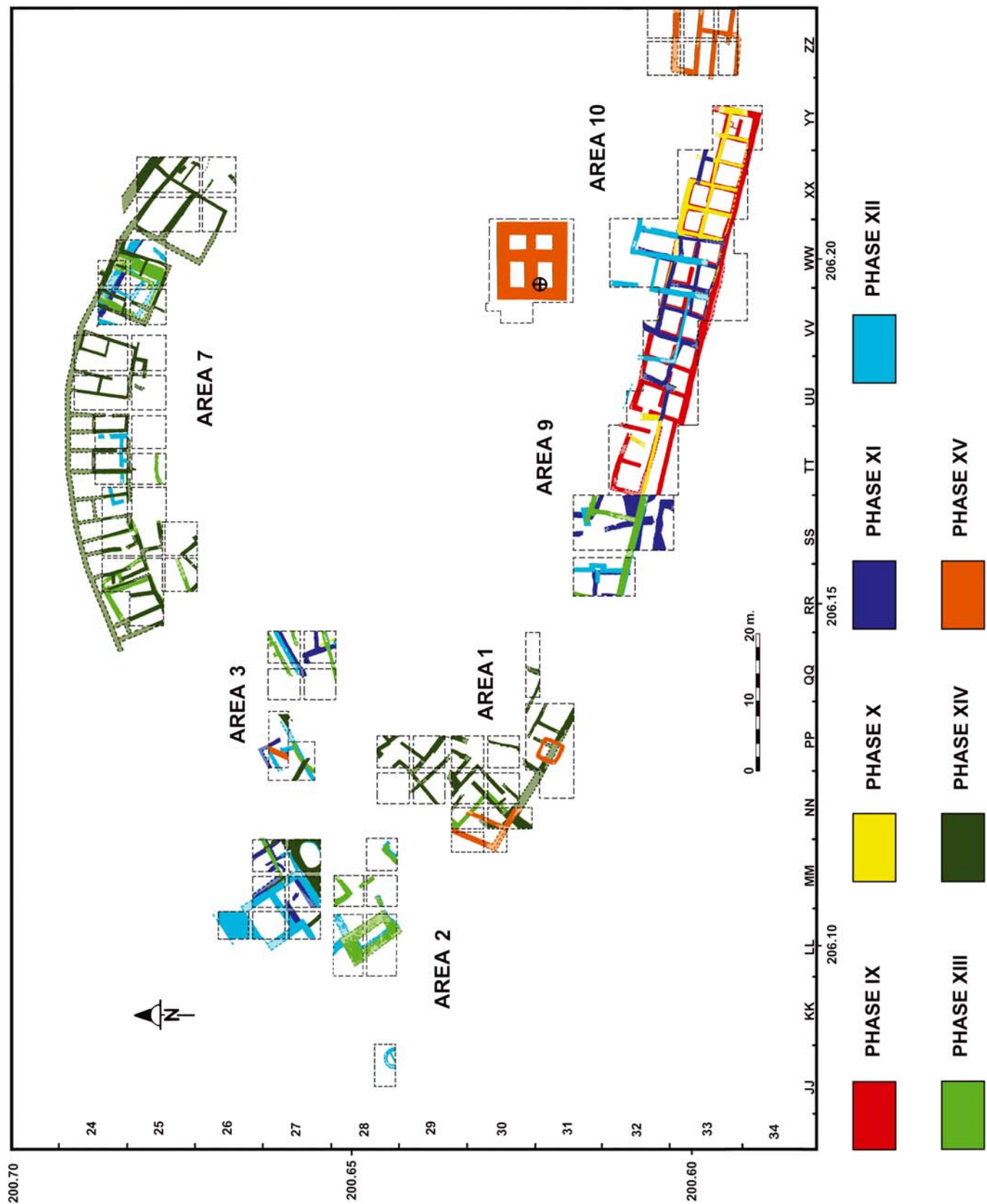


Fig. 451 Schematic overview over the Iron Age structures of Phases IX–XV (compiled by T. Bürge)

were mainly used in the later Iron Age phases and especially in Phase XIV.¹¹¹

The early Iron Age Phase IX compound from Area 9 (Fig. 250) with its cell-plan structures including 22 rooms (state 2012) is unique for the Transjordanian Jordan Valley (see reconstructions in Figs. 279, 452:2). There is a structure from Tell el-'Oreme/Kinneret on the north-western shore of the Sea of Galilee which resembles our structure (Complex I in Field I; MÜNGER *et al.* 2011: 77–78). The Kinneret complex belongs to Phase V which lasted from roughly 1050–950 BCE, i.e. somewhat later than the date of our compound. It was destroyed by an earthquake according to the excavators. Phase V continues in many ways the layout of the previous Phase VI which is the foundation phase of the Iron Age occupation at the site (starting around 1100 BCE; see ref. above). Both the Tell Abu al-Kharaz compound and that of Kinneret demonstrate careful and centralized city planning. At both sites the task of constructing such compounds was difficult because the steep slopes had to be terraced and levelled. Our reconstruction assumes that the excavated remains in fact represent a basement which was accessed via ladders from the upper storey because there are no external entrances to each pair of the rooms which are connected via entrances. Some of the units of the complex at Kinneret also seem to have had a “second storey”. There are, however, differences between the layout of the structures at Tell Abu al-Kharaz and Kinneret. Whereas the Tell Abu al-Kharaz compound was built on the edge of the tell transversally to the steep slope and its structures were an integrated part of the defence system, the Kinneret complex which was built along the slope is domestic in nature and bordered by a street. It is, however, evident from the finds from the Phase IX compound that its function also was domestic. It seems that the walled spaces of the Tell Abu al-Kharaz compound are more standardized than those from Kinneret but this may depend on the local topography. The Phase IX compound was destroyed by a violent conflagration maybe caused by an assault.

The Phase X structures which were built on top of the collapsed Phase IX compound in Area 9 resemble in certain aspects the older structure in that older walls were reused but there are differences (Fig. 445): the cell-plan design of the structures is still used but they are less standardized and more sloppily built. In addition, the western part of the Phase X compound is totally different from the architectural layout of the

previous structure. In accordance with the layout of the previous phase there seems to have been an upper storey from which the basement could be approached via ladders because external entrances between each pair of rooms are missing. The structures of Phase X were partly destroyed.

The settlers of Phase XI in Area 9 (Fig. 446) reused almost unchanged many of the structures from Phase X. Not much can be concluded from the structures of Phases X and XI in the other areas (see though the interpretation of the architectural remains in Chapter 2). Phase XI was also destroyed by a conflagration as witnessed by a lot of ash and other debris covering the remains of this phase.

The tower-like structures in Area 2 and Area 2 North-West (see above), and that from Area 7 – all from Phase XII – have already been mentioned but some information will be added (Fig. 447): the tower of Area 2 is approximately half the size of the tower in Area 7. There is no entrance to the inside of the tower, which indicates that the structure was compact and served as an observation platform, very likely reached by a ladder. The tower in Area 7 was destroyed in a conflagration, traces of which can be seen everywhere inside and outside the tower. Only the ground floor remains and therefore it is not possible to estimate the original height of the structure. The considerable amount of fallen stone around the structure suggests that there were probably several additional storeys which could be reached via wooden ladders.

The largest cistern so far discovered at Tell Abu al-Kharaz comes from Area 2 North-West, just to the south-east of the north-western tower (Figs. 80, 81). Its interior is of stone and very well constructed: it is over 4 m deep, oval in shape, approximately 4 m × 3 m, sealed with clay between the stones, and carefully plastered. The original water capacity of this cistern is estimated at approximately 50 cubic metres.

The Phase XII structures in Area 9 are totally different from those of the previous phases of occupation. Their function is difficult to assess because of erosion. Nevertheless, the large dimensions of the structures and their closeness to the summit of the tell makes it likely that they had an administrative function. The 4 m wide opening between the two structures may point to a portion of the southern city gate in Phase XII.

A test trench, Trench X, in the western part of Area 2, where erosion is most manifest, exposed a kiln for firing pottery (Fig. 71). An approximately 0.6 m

¹¹¹ This is quite a tentative judgment considering that only about 20 % of the upper plateau is excavated.

wide circular stone wall surrounds the structure, which is 3.2 m in diameter, thus giving an internal space with a diameter of roughly 2 m. The internal space is partly separated by a 1.4 m long and 0.3 m wide mudbrick wall with an opening to the west. A thick layer of ash covers most the internal space. The few sherds from the kiln area fit best the pottery repertoire of Phases X–XII.

Architectural remains from Phase XIII are best preserved in the northern part of the tell in Area 7 (Fig. 448). Whereas the western part of Area 7 produced several non-standardized domestic structures a new tower was built on top of the ruins of the tower from Phase XII. It is integrated into the city wall. It is somewhat larger than the tower from the previous phase and has a slightly different orientation. The stratigraphical evidence proves that the new tower was constructed quite soon after the demolition of the previous tower. It is difficult to estimate the original height of the tower since only its foundation remains, but there must have been additional storeys which could be reached by wooden ladders, judging by the large amount of building material all around the structure. The remains of the stone foundations of the new tower on Area 2 demonstrate that it was somewhat altered in comparison with the older phase which reflects the situation in Area 7. Also Phase XIII came to a violent end and the city was destroyed judging by the substantial remains of ashy debris everywhere.

Phase XIV is best represented in Areas 7 and 1 (Fig. 449 and reconstructions in Figs. 190 and 452:1). This phase is also present in all the other areas with the exception of Area 9 where erosion of the superficial layers is manifest. The structures in Areas 2, 3 and the eastern part of Area 10 allow only limited conclusions (see Chapter 2).

The principal use of Area 7 shifted in Phase XIV in comparison with Phase XIII. There are now five domestic structures, and, to the east, a workshop for the production of iron and bronze objects in the easternmost part of what has so far been exposed (Figs. 182, 190). The five domestic buildings to the west of the workshop are fairly standardized. These five houses are built along the former edge of the upper plateau of the tell against the city wall. The city wall is partly preserved in the easternmost and westernmost parts but demolished in the remaining part of the area due to erosion. The ground plans of four of the houses, the exception being the most westerly, are similar and all of them comprise four rooms/spaces and partly roofed courtyards. The necessary adaptation to the curving edge of the tell influenced their general shape: whereas the easternmost house is

almost square, being 8.5 m $\times$ 9 m, the next one to the west is more trapezoidal in shape, being 9 m $\times$ 8/9 m, the next is square again, 9 m $\times$ 9 m as reconstructed. Too little is preserved/excavated of the two westernmost houses for it to be possible to report their dimensions. The easternmost three houses show annex structures built against the southern façade of the houses. There are also walls between the houses, creating protected working spaces. It is very possible that at least the domestic structures had two storeys as did parts of the workshop complex. Ash and collapsed portions of the ceilings were found everywhere in the buildings of Area 7, which were apparently destroyed by fire. It does not seem conceivable that the structures were destroyed by an earthquake, since the foundation walls were found quite intact.

In Area 1, too, Phase XIV is the best preserved Iron Age phase (Fig. 26). There are two compounds which are separated from each other by a zigzag alley. In the central part of Area 1 is a square structure, approximately 9 m $\times$ 9 m in size, which is built against the city wall and which was destroyed in a conflagration. This structure shows certain similarities with structures from Area 7. The Area 7 structures, similar in size, were interpreted as towers from two successive periods but built within a relatively short time. This compound, which lies attached to the city wall and close to a gate, also seems to be a tower, most likely with more than one storey, viz. the excavated portion of the building is the basement. It might have been inhabited by the guards and their families until it was destroyed by fire.

The dominating structure in Area 10, where the summit of the tell is situated, is what is known as the “White Building” (Figs. 376–379). It is quite monumental, measuring 10.60 m by 11.70 m as exposed. The axes of the building are oriented strictly north-south and east-west. The stone foundations of the building, which are preserved to a height of approximately 2 m, are partly constructed of rubble stone and ashlar blocks of stone. It is covered on the outside with fairly well preserved white plaster of lime and sand which might be a later feature. The building material is locally quarried limestone. Mortar was not used. The walls are approximately 1.50–2 m wide. It became clear during the exposure of this structure that it was built, rebuilt and repaired over quite a long period. There are four internal rooms, in which a considerable amount of fallen stone was discovered, very likely deriving from the collapsed upper floors and structures. The north-western room measures 2.30 $\times$ 3.90 m, the south-western 2.30 $\times$ 3.80 m, and the north-eastern and the south-eastern rooms 2.30 $\times$



Fig. 452

1. Reconstruction of Phase XIV (8th century BCE) in Area 7 (looking north-west): metal workshop to the right, domestic houses with four rooms surrounding courtyard and upper storey to the left (drawing by M. Al-Bataineh)
2. Reconstruction of Phase IX (ca. 1100 BCE) compound in Area 9 East (looking north): basement as excavated to the right; ground floor reconstructed (drawing by M. Al-Bataineh)
3. Double-pyxis with false spot from Phase IX (N1365; see also Figs. 325:8, 327, 430:8)
4. Portion of belly of Phoenician jug from Phase IX (L208-6; see also Figs. 321:7, 412:7)
5. Bowl with thick white slip from Phase IX (N1372; see also Figs. 280:17, 281, 389:15)
6. Monochrome decorated jug with thick white slip from Phase IX (N1352; see also Figs. 297:1, 298, 409:3)
7. Stand with chalice-lid *in situ* from Phase IX (N1390; see also Figs. 259, 328:1, 2 and 329). Observe traces of fatty liquid on exterior



Fig. 453

1. Bridled camel from Phase XIII (N1093; see also Figs. 179:11, 463:1)
- 2A. Bridled equid with two containers from Phase XIV (N1085; see also Figs. 223:1, 224, 462:3)
- 2B. Bridled equid with two containers (see 2A)
3. Carved handle of bone from Phase XII ("Sphinx handle" N553; see also Figs. 127, 464)
4. Mask of smiling youngster with beard, red painted, from Phase XII (N504; see also Figs. 117, 462:2)
5. Phoenician-type jug from Phase XII (N754; see also Figs. 151:8, 152, 415:2)
6. Neo-Assyrian cylinder seal with impression from Phase XIV (N1161; see also Figs. 229, 467:1)
7. Ceramic imitation of Phoenician jug of metal from Phase XIV (N1226; see also Figs. 219:1, 420:4)
8. Cosmetic palette of limestone from Phase XII (N1110; see also Figs. 156, 465:1). Observe remains of blue paste in the drilled decorations
9. Cosmetic palette of alabaster from Phase XIII (N1116; see also Figs. 179:1, 465:2). The light source is behind the object: observe remains of blue paste in the depressions of the flat part, and lilac-red paste in the centre of the concavity
10. Cosmetic palette of limestone from Phase XIV (N954; see also Figs. 39:3, 465:3)



1



2



3



4



5

Fig. 454 Phase IX, Area 9 East:

1. Room 2 during excavation after removal of roof debris
2. Room 8, north-western corner
3. Room 10, south-western corner
4. Room 11 during excavation, storage jars leaning against northern wall
5. Barley flour from storage jar (Room 2)

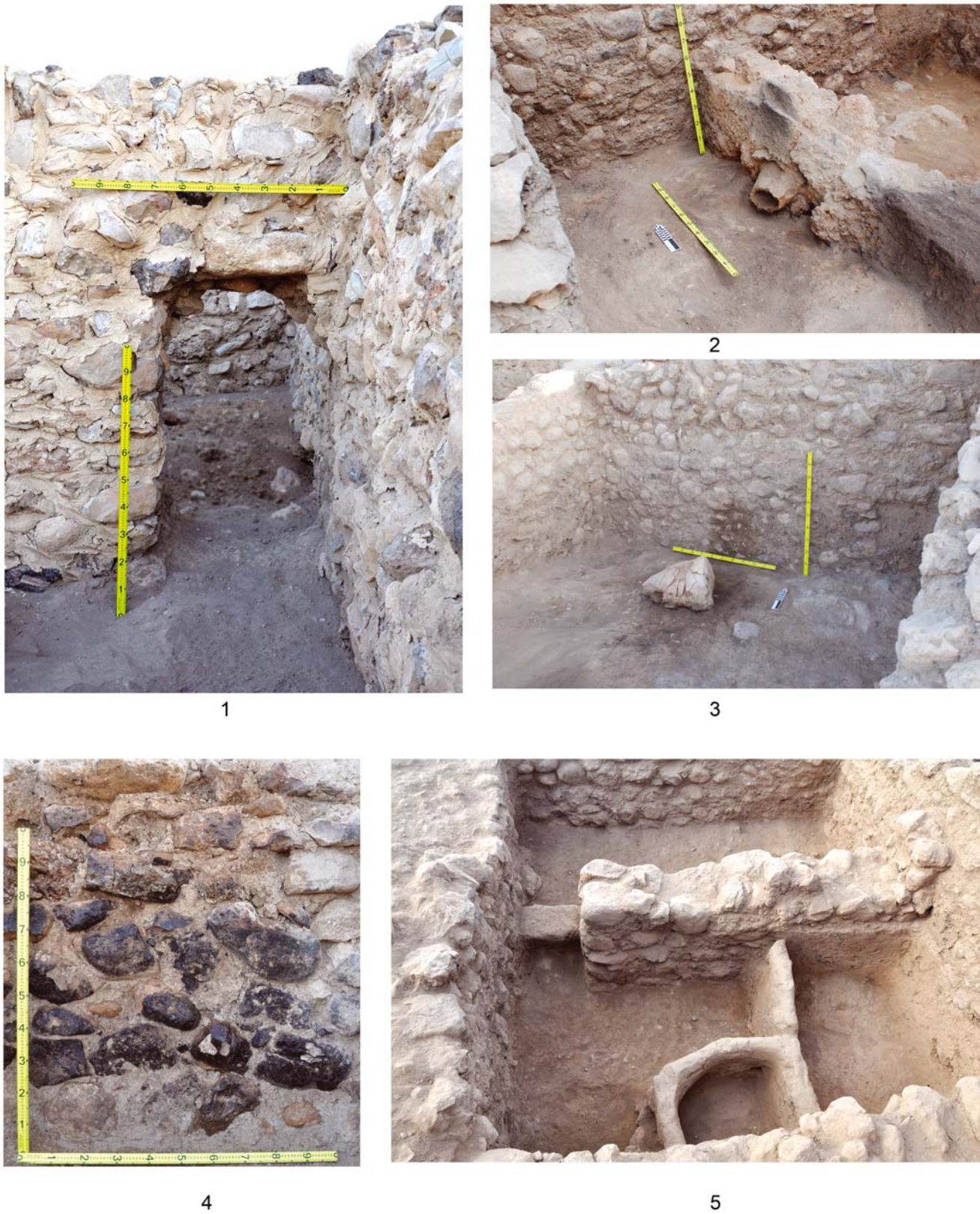


Fig. 455 Phase IX, Area 9 East:

1. Photograph showing the state of preservation of one of the doorways: looking north from Room 14 into Room 13
2. Basement floor of Room 14: collapsed roof of basement / floor of upper storey with *tannur* fallen down from upper storey
3. *Tannur* exposed (see Fig. 455:2)
4. Room 19 northern wall blackened by fire
5. Rooms 21 A and B looking south; grain silo in foreground (Room 21 A)



Fig. 456 Phase IX, Area 9 East:

1. Wooden beam from Room 1
2. Contents of vessels from Room 12: millet (up) and chickpeas (down)
3. Sealed vessel from Room 12 (N1379/1; see also Figs. 292:8, 295 and 296)
4. Late Bronze Age-type jug from Room 19 (L377-2; see also Figs. 297:2 and 299)
5. Jug with clay balls from Room 12 (N1398; see also Figs. 302:1 and 303)
- 6.–8. Juglets from Room 2 (L160-1, L160-21 and L160-2; see also Figs. 291, 290:5–7)
9. Juglet/goblet N1397 from Room 11 (N1397; see also Figs. 292:3 and 293)



Fig. 457 Phase IX, Area 9 East:

- 1.-3. Kraters from Room 2 (L160-3, L160-22 and L160-15A; see also Figs. 288 and 289)
4. Storage jar from Room 11 (L275-5; see also Figs. 308:2 and 309)
- 5-8. Storage jars from Room 2 (L160-11, L160-18, L160-12 and L160-10; see also Figs. 314:1-3, 313:2 and 315)
9. Bichrome-decorated pilgrim flask with cup-mouth from Room 12 (N1384; see also Figs. 321:1 and 322)
10. Cooking jug from Room 21B (N1457; see also Figs. 278 upper right corner, 338:4 and 339 upper left)
11. Scaraboid of steatite from Room 12. (N1388; see also Figs. 341:1, 342 and 466:1)
12. Scarab of faience from Room 12 (N1389; see also Figs. 341:2, 343 and 466:2)
13. Spindle whorl of stone (steatite?) from Room 2 (L160-23; see also Figs. 346:13 and 349)
14. Polished bone-tubes from Rooms 16 (left) and 19 (N1439 and N1448; see also Figs. 269 and 344:7 and 8)



Fig. 458

1. Jug with false spout from Phase XIII, Area 7 (N1119; see also Figs. 168:1 and 169)
2. Jug/decanter from Phase XIV, Area 7 (N731; see also Figs. 198:9 and 199 right)
3. Black Juglet from Phase XIV, Area 1 (N939; see also Figs. 30 and 33:13)
4. Jug with 41 astragals from Phase XIV, Area 7 (N730; see also Figs. 187B and 200:2)
5. Figurine of female holding a tambourine (N874; see also Figs. 248:6 and 462:1)
6. Figurine of Lion from Phase IX, Area 9 East (N1424; see also Figs. 354 and 463:2)
7. Fibula, bronze with iron needle preserved from Phase XIV, Area 7 (N1250; see also Fig. 225:12)
8. Fire rake of iron from Phase XIV, Area 7 (N1173; see also Figs. 225:1 and 226)
9. Tripod bowl of basalt from Phase XIII, Area 7 (N1284; see also Figs. 160:3 and 161)
10. Bichrome-decorated jug from Phase XIII, Area 11 (N1461; see also Fig. 417:4)

2.65 m. The inner walls are either placed directly on bedrock or built on fill or they were placed in foundation trenches cut into bedrock. The still upright walls consist of six to eight courses of stone. The width of the wall separating the rooms is roughly 2 m. Everywhere around the structures an abundance of fallen stones can be seen on the surface, suggesting that the original structure was of considerable height. Outside the western façade, a stone pavement can be traced. This pavement is attached to the western wall. The plaster that covers the wall goes underneath the pavement, indicating that the pavement is of a later date. Late Roman sherds could be associated with the stone pavement.

Very little is left of the most superficial Iron Age Phase XV (Fig. 450). It seems though that this is not only due to erosion but mainly to the fact that – after the catastrophe which brought Phase XIV to a violent end – the city of Tell Abu al-Kharaz had become an impoverished small settlement.

V. CHRONOLOGY

A. Relative chronology (By P.M. Fischer)

1. Local chronology

The division of the Iron Age occupation of Tell Abu al-Kharaz into the seven phases, that is Phases IX–XV, is based on the architectural evidence which is discussed in Chapter 2 and above.

2. Regional synchronization (By P.M. Fischer and T. Bürge)

General considerations

Specific diagnostic vessel shapes from Tell Abu al-Kharaz which were selected for comparative studies of vessels from other sites are in Figs. 389–442 (see Chapter 3) where they are arranged according to vessel type and phase. These vessels and their find contexts are also described in detail, in Chapter 2 in connection with the reports on the various phases and their associated loci and architectural structures. There, the descriptions include their exact positions directly as an object placed on the relevant plan or section, or within their corresponding loci on the plans. In addition general shape, production technique, fabric, inclusions and surface treatment are reported.¹¹²

In correspondence to the previous volumes the references to comparable vessel types from other sites

are in most cases restricted to more recent literature on the results of excavations of settlements which demonstrate a reasonably reliable stratigraphy. Tomb/cave material or material from insecure stratigraphical contexts is referred to very restrictively and many times only to demonstrate the geographical spread of certain vessel types. The reason for referring mainly to more recently published material is the awareness of the majority of today's scholars of the importance of distinguishing between well-stratified, mixed, isolated and unstratified contexts, which is essential in connection with the perpetual discussion on relative and absolute chronology. It is, however, impossible altogether to neglect older publications of certain key sites, even when the authors do not make use of adequate recording and presenting techniques.

It must also be emphasized that the main point of listing selected *comparanda* is not to establish or to support a particular relative or absolute chronological framework for Tell Abu al-Kharaz, because this relies entirely on the site's own advantageous stratigraphical sequence of occupation and radiocarbon dates, but to demonstrate similar cultural traits elsewhere and to establish a certain cultural synchronism. This becomes evident by citing *comparanda* from other sites which are beyond the chronological time frame of the proposed occupational sequence for Tell Abu al-Kharaz (see below).

Phase IX

A total of 23914 sherds derive from this phase, which corresponds to 26.0 % of the Iron Age assemblage. The largest Iron Age ceramic assemblage is from this phase (see also Tables 73A, B).

It is a general observation that there are bowls which resemble those from the outgoing Late Bronze Age assemblages of Phases VII/VIII from Tell Abu al-Kharaz (cf. FISCHER 2006a: 217, fig. 255 lower) but other shapes are new.

Beth-Shean offers parallels through bowls which are similar to Egyptian shapes (Figs. 389:2, 8 and 13). Our bowls resemble those from Beth-Shean S-5-S3 and N-4-N-3 (MARTIN 2009: 435, fig. 6.1, BL 70c, BL 74, CB). These bowls are dated to the outgoing Late Bronze Age and Iron Age IA (MAZAR 2009a: 13, table 1.2).

Fairly good parallels to our bowl in Figure 389:2 come from Pella Late Bronze Age/early Iron Age, i.e. Phase 1 in the Iron Age sequence (1250–1180 BCE,

¹¹² See also “Chapter 1: Introduction and Vade Mecum”. Petrography is forthcoming.

Fig. 459:1 and 2).¹¹³ This is, however, a shape which is also produced later. Another parallel is from Tel Rehov Stratum D-4 which is dated to Iron Age IB (11th century BCE; MAZAR 2005: 206, fig. 13.7:1), and still others come from Megiddo Level K-5 (ARIE 2006: 250, fig. 13.51:1, which is dated to the 11th century BCE according to the lowered dates by FINKELSTEIN *et al.* 2000: 265). From Tell Keisan Stratum 9c (11th century BCE according to BRIEND and HUMBERT 1980: pl. 79:3), Tell Qasile Stratum XII Temple 319 (1150–1100 BCE, MAZAR 1985: 163, fig. 11:10, but here with disk base) and Dan Stratum V (late 12th century BCE; BIRAN 1994: 153:112:3) come shapes which are similar to our Figure 389:13. The general shape of the latter is also represented at Tell es-Sa‘idiyeh Burial Phase 1 pithos burial T.228 (suggested date 13th–12th centuries BCE, GREEN 2006: 361, fig. A.1.3; see also *idem* 2009).

The shape of our, for the site unique, large bowl with thick white slip, standing on three loop handles (Fig. 389:15), has a parallel in the shape of a decorated bowl from Megiddo from a Phase VIB context which is dated to the 11th century BCE (LOUD 1948: pl. 74:10; see FINKELSTEIN *et al.* 2000: 253, fig. 11.6.11; 265; see also ARIE 2006: 195; 280, fig. 13.75.B17 from Level K-5, Iron Age I), and from Iron Age I at Tel Qasile (Type BL13, MAZAR 1985). A vessel with a similar shape is reported from Kinneret Stratum V (“Main Iron Age IB occupation”, suggested date 1050–950 BCE, MÜNGER *et al.* 2011: 84, fig. 22 upper row; the stance/rim is different).

There is one partially preserved chalice CH71 from S-3a at Beth-Shean, which is dated to the end of Iron Age IA (MAZAR 2009a: 13, table 1.2; PANITZ-COHEN 2009: 209, pl. 66:7) and corresponds in shape to our Figure 398:3. Our chalice with the inverted rim (Fig. 398:2) is similar to another one of Tell Qasile Stratum XII Courtyard 110 (1150–1100 BCE, MAZAR 1985: 169, fig. 14:6) and Dan Stratum V (BIRAN 1994: 153:112:2; see above).

A goblet from Phase VII (UME excavations)¹¹⁴ which is dated as early as the end of the Late Bronze Age (JAMES and MCGOVERN 1993: fig. 10:10) can be compared with our goblet in Figure 399:3; another

similar goblet, although more rudely made, is illustrated in PANITZ-COHEN (2009: 211, photo 5.10; here dated to S-3?, viz. Iron Age IA). Tell Deir ‘Alla offers other parallels to our goblets from the Late Bronze Age temple (FRANKEN 1992: 40, figs. 4–3:15 and 4–24:6).

Our undecorated kraters without handles (Fig. 400:1–5) have a long life span at many other sites, i.e. from the later Late Bronze Age to the Iron Age IIA. They are reflected in a krater from Pella Late Bronze Age/early Iron Age, i.e. Phase 1 in the Iron Age sequence (Fig. 459:3). Our krater in Figure 400:2 corresponds in general to a krater from Pella Phase 2 (Iron Age IA, suggested date 1180–1130 BCE, Fig. 459:10) and others from Phase 3 (Iron IB, suggested date 1130–1050 BCE, Fig. 460:3 and 4). It also corresponds to Beth-Shean KR74 (PANITZ-COHEN 2009: 218–220), which is the most common krater shape in early Iron Age contexts at Beth-Shean. It already appears in Phase VII (UME), for example at the outgoing Late Bronze Age, and continues from S-5 to S-2, viz. Iron Age IB. It is most common in S-2, i.e. Iron Age IB. This krater type corresponds to K1 at Megiddo, which is common in Strata VIB and A (ARIE 2006: 196–197) and which is dated to the 11th and 10th century BCE respectively. Megiddo Level K-5 again produced a krater which is similar to our kraters in Fig. 400:1–4 (ARIE 2006: 250, fig. 13.51:4). Yoqne‘am Stratum XVII (second half 11th century BCE) provides a krater shape which is similar to ours in Figure 400:4 (ZARZECKI-PELEG 2005: 48, fig. I.9:7). Tel Dor also shows some parallels (Iron Age I-IIA, GILBOA and SHARON 2003: 12, fig. 2:14–16). Our krater in Figure 400:6 is mirrored in a krater from Dan Stratum V (late 12th century BCE; BIRAN 1994: 153, fig. 112:4). It is also reflected in a krater from Qubur al-Walaydah close to Wadi Ghazzeh where a very similar shape is dated to Iron Age IA (LEHMANN *et al.* 2009: 10, fig. 7:9). Our krater in Figure 400:6 has counterparts at Pella Phase 2 (Iron Age IA, suggested date 1180–1130 BCE, Fig. 459:11 and 12).

The undecorated, multi-handled, kraters (Fig. 401:2–4) are common in Strata N-4–3a and S-5–2 at Beth-Shean (KR72a in PANITZ-COHEN 2009: 220–223).

¹¹³ All “suggested dates” concerning the Pella material are offered by S. Bourke. The unpublished ceramic material from Pella and the local sequence of Iron Age occupation, i.e. Phases 1–8 where Phase 1 is transitional Late Bronze Age/early Iron Age and Phase 8 is Iron Age III/Persian, have – in connection with a cooperative research project – kindly been forwarded to the author by S. Bourke, the

director of the excavations at Pella (see Figs. 459–461). As regards parallels from the ceramic corpus of Pella only those from Phases 1–6 are here relevant for comparative studies. See also the radiocarbon dates from Pella in Chapter 4, Table 75B.

¹¹⁴ University Museum Excavations 1921–1933, University of Pennsylvania.

A parallel also comes from Tell el-ʿUmayri (HERR *et al.* 2002: fig. 4.15:5) and another from Tell el-Farʿah North (CHAMBON 1984: pl. 47:5, Stratum VIIa, 12th–11th centuries BCE). Others again are from Megiddo Strata VIB and VIA (ARIE 2006: 198).

There are also plenty of shapes from Stratum 9c at Tell Keisan corresponding to our kraters (BRIEND and HUMBERT 1980: pl. 78), to the goblets in Figure 399:1 and 3 (*ibid.* pl. 73:4), to our cooking pots with open and closed shapes in Figures 432–434 (*ibid.* pl. 77:1–5), to the pilgrim flasks in Figure 412:5, 6 (*ibid.* pl. 75), to the pyxides in Figure 430:1–5 (*ibid.* pl. 70:1), and to the jars, for instance, Figure 423:3 (*ibid.* pl. 69:2).

Our one-handled jugs (Fig. 410) are related to Pella Phase 1 (1250–1180 BCE, Fig. 459:4). The decorated jug with the strainer-spout in Figure 411:5 has a fairly good parallel at Beth-Shean S-3, second half of Iron Age IA (PANITZ-COHEN 2009: 415, pl. 65:5). A similar vessel is from Yoqneʿam Stratum XVII (second half 11th century BCE; ZARZECKI-PELEG 2005: 59, fig. I.17:7, but here bichrome-decorated) and from Cave 4 in the Baqʿah Valley. This cave is dated to Iron Age IA (MCGOVERN 1986: 159, fig. 53:42; see also the next chapter, “3. Interregional synchronisation”).

The jug with the thick white slip and the monochrome decoration in Figure 409:3 represents a special case: good parallels from our region are rare but the decorative elements, for instance the concentric groups of semicircles on the shoulder of the jug, which are a typical decorative pattern on Mycenaean vessels (see below), are mirrored in jugs from Beth-Shemesh and Afula (compiled in DOTHAN 1982:190, fig. 56), and in a juglet from Strata 9a-b at Tell Keisan which is dated roughly to the 11th century BCE (BRIEND and HUMBERT 1980: pl. 61:3).

An almost identical bichrome-decorated pilgrim flask with a cup mouth and pierced lug handles compared to ours in Figure 412:1 comes from Megiddo Stratum VIB (LOUD 1948: pl. 74:16). Our pilgrim flask (Fig. 412:2) is similar to that in Yoqneʿam Stratum XVII (second half 11th century BCE; ZARZECKI-PELEG 2005: 71, fig. I.24:2). Another pilgrim flask which is related to our Figure 412:5 and 6 is from Tel Dor Stage 1, Phase G/9 (GILBOA *et al.* 2008: 128, fig. 5:3). The destruction of Phase G/9 is dated to late 11th/early 10th century BCE (*ibid.* 133–134).¹¹⁵ A similar, decorated, parallel comes from Tel Mor (BARAKO 2007: 121, fig. 3.29:4).

The globular jug with a double handle (Fig. 412:7) and light reddish-yellow burnished slip has a matt bichrome decoration of narrow black lines enclosing wide red bands and a black dot in the centre. It shows quite a high manufacturing quality in the fabric and surface treatment. A somewhat related jug comes from Tell es-Saʿidiyeh Phase 2 (suggested date 12th–11th centuries BCE; GREEN 2006: 366, fig. A.6.6; see also PRITCHARD 1980: fig. 40.1 from T.140), and another one from Yoqneʿam Stratum XVII (second half 11th century BCE; ZARZECKI-PELEG 2005: 59, fig. I.16:8; here the centre decoration is missing; see also *ibid.* 77, fig. I.28:1 and 2).

The decorated jar in Figure 422:4 has an excellent parallel at Pella Phase 3 (Iron Age IB, suggested date 1130–1050 BCE, Fig. 460:5). Tell Keisan Stratum 9a-b produced an equivalent to our Figure 423:5, the small jar with wide mouth, large handles and somewhat pointed base (see BRIEND and HUMBERT 1980: pl. 57:3). A derivative of the small jar is from Beth-Shean S-4, viz. the first half of Iron Age IA (PANITZ-COHEN 2009: 232, fig. 5.5: SJ72). A decorated storage jar from Beth-Shean Stratum N-4, which is dated to the end of the Late Bronze Age, shows traits reflected in our Figure 422:2 (PANITZ-COHEN 2009: 291, pl. 3:5). The storage jar in Figure 425:4 has a counterpart at Pella Phase 3 (Iron IB, suggested date 1130–1050 BCE, Fig. 460:6). It also resembles a jar from Tell es-Saʿidiyeh (suggested date 11th century BCE; GREEN 2006: 366, fig. A.6.7) and others from Tell Deir ʿAlla Iron Age Phases F-H (likely 11th century BCE; FRANKEN 1969: figs. 62.30; 65.5–27; 67.33–52).

From Tell el-Farʿah North (CHAMBON 1984: pl. 60:12, Stratum VIIa) and from Megiddo Stratum VIB (UME) come pyxides of similar shape and decoration to those in Figure 430:1–5 (FINKELSTEIN *et al.* 2000: 254: fig. 11.7:2). The double-pyxis (Fig. 430:8) resembles one from Megiddo Stratum VIIA (LOUD 1948: pl. 68:8) or another one from Megiddo Stratum VIB (LOUD 1948: pl. 73:13; 11th–10th centuries BCE according to Finkelstein).

Table 82 demonstrates that the closed cooking jug and the traditional open cooking pot (roughly 1:3) appear in the same rooms of the Phase IX compound. There are numerous parallels to cooking jugs in Cis-jordan. Megiddo Level K-5 (= VIB, Iron Age I, 11th–10th century according to low chronology of Finkelstein) offers a closed cooking pot (ARIE 2006: 250, fig.

¹¹⁵ Residue analyses from such flasks from Israel produced Far Eastern spices (pers. communication A. Gilboa 14 March, 2012).

13.51:10) which corresponds to that in Figure 434:5. There are also numerous examples which correspond to this cooking pot shape from Philistia itself, for instance, Ashdod (DOTHAN and PORATH 1993: fig. 17:4 and 5) and Tel Miqne/Ekron (DOTHAN 1998: pl. 6:8) where they were found together with the Canaanite standard cooking-pot type with the triangular rim. Another parallel to our cooking pots (Figs. 433:2–5) comes from Tell Qasile Stratum XI (1100–1050 BCE, MAZAR 1985: 193, fig. 26:11), and to Figure 433:2 from Pella Phase 3 (Iron IB, suggested date 1130–1050 BCE, Fig. 460:8). A closed cooking pot parallel to our Figure 434:5 is from Yoqne’am Stratum XVII (second half 11th century BCE; ZARZECKI-PELEG 2005: 54, fig. 1.14:30). Our cooking pots in Figures 433:2–5 are similar to Philistinian-labelled cooking pots from Qubur al-Walaydah from Iron Age IB context (LEHMANN *et al.* 2009: 10, fig. 12:1–3; here both one- and two-handled).

Phase IX compound		
Room No.	No. of cooking pots	No. of cooking jugs
1	–	–
2	–	–
3	–	–
4	–	1
5	3	–
6	–	1
7	1	–
8	2	–
9	2	–
10	1	–
11	1	2
12	–	–
13	1	–
14	4	1
15	6	2
16	1	–
17	–	–
18	2	1
19	1	–
20	2	–
21A	–	–
21B	1	1
Total	28	9

Table 82 Distribution of cooking pots and cooking jugs in the Phase IX compound

There are many parallels to our open cooking pots with triangular overhanging rims (Fig. 432) but only a few will be mentioned, for instance, from Pella Phase 2 (Iron Age IA, suggested date 1180–1130 BCE, Fig. 459:13), and from Megiddo (ARIE 2006: 250, fig. 13:51:7–9). Also Beth-Shean produced open and closed cooking pots which correspond to our shapes (PANITZ-COHEN 2009: 226, fig. 5.4; here all of them are from the first half of the Iron Age IA).

In summary, the parallels include material which is dated at other sites mainly from the end of the Late Bronze Age, viz. the 12th century BCE, to the 11th century BCE (inclusive).

Phase X

From this phase derive a total of 6156 sherds, which corresponds to 6.7 % of the Iron Age assemblage (see also Tables 73A, B).

The bowl with the low carination (Fig. 391:6) resembles a Phase 3 bowl from Pella (Iron Age IB, 1130–1050 BCE, Fig. 460:1) and the bowl with the high carination (Fig. 391:2) another one from Phase 3 at Pella (Fig. 460:2). The “ridged” bowl in Figure 391:4 is similar to a bowl from Tell el-Far’ah North (CHAMBON 1984: pl. 56:3; Stratum VIIb, (11th-) 10th century BCE). Tell Keisan offers again numerous counterparts to our Phase X assemblage. Our bowl in Figure 391:7 has equivalents in Keisan Stratum 9c (BRIEND and HUMBERT 1980: pl. 79, 11 and 13) and Tell es-Sa’idiyeh burial T.73, Phases 2–3 (suggested date 12th–11th (10th) centuries BCE; GREEN 2006: 361, fig. A.1.8), and our Figure 391:5 also in Keisan Stratum 9c (BRIEND and HUMBERT 1980: pl. 79:5) and Tell es-Sa’idiyeh from Phase 1 pit burial T.146 (suggested date 12th–11th centuries BCE, GREEN 2006: 361, fig. A.1.5). Some of the bowls in Figure 391 have fairly similar counterparts from the recent excavations at Kinneret (“Main Iron Age IB occupation”, 1050–950 BCE, MÜNGER *et al.* 2011: 84, fig. 22, upper row). There is a certain resemblance between our bowl with a raised base in Figure 398:4 and Type BL58 from Beth-Shean S-1 (Iron Age IIA, MAZAR 2006: 330 and 331). The krater in Figure 402:2 corresponds to a similar vessel from Lachish Stratum V, Locus 49 (10th century, AHARONI 1975: pl. 41:14). The krater in Figure 402:6 has a parallel in Beersheba, Stratum VIII (1050–1025, HERZOG 1984: 45, fig. 20:8).

Certain decorative elements, for instance the triangles on our krater in Figure 402:7, are similar to a krater from Beth-Shean Stratum N-3b which is dated to the 12th century BCE (PANITZ-COHEN 2009: 307, pl. 11:15). This pattern also occurs on a krater from Pella Phase 2 (Iron Age IA, suggested date 1180–1130 BCE,

Fig. 459:9). A similar pattern with triangles is reported on a krater from Tel Mique-Ekron Stratum IX (Phase 11A), Late Bronze Age IIB (KILLEBREW 1998: 385, fig. 3:5, here the decoration is placed just above the belly). It should be highlighted that the general shape of the Tel Mique-Ekron krater is reflected in one of our kraters from Phase IX (Fig. 400:6, but here plain). However, it cannot be excluded that our krater sherd from Phase X in Figure 402:7 is residual because the remainder of the vessel has not been found. From Pella Phase 4 comes a krater (Iron IIA, suggested date 1050–950 BCE, Fig. 460:9) which resembles our Figure 402:5 in shape. Krater Type KR51 from Beth-Shean (see above), which has an almost vertical stance and which is most common in S-1 (Iron Age IIA), is similar to our krater in Figure 402:3.

Taanach Period IIB (Iron Age IIA, 10th century BCE, RAST 1978: 163, fig. 47: 4 from the “cultic structure”) provides a fairly good parallel as regards the general shape of our chalice/bowl in Figure 398:4 which was used as a mortar, and the bowls in Figure 391:5 and 6 (*ibid.* 164, fig. 48:1 and 2). The jug in Figure 413:2 is also similar to that from Taanach Period IIB (*ibid.* 139, fig. 37: 1).

The Phase X cooking jug (Fig. 435:1) does not differ from those from Phase IX (see refs. above). Our cooking pots with open shapes and triangular overhanging rims (Figs. 435:2–6, and 436) correspond mainly to Beth-Shean Type CP54 which is the most common cooking-pot type in late Iron Age I and IIA (MAZAR 2006: 340–342; see also CP 1 from Qasile in MAZAR 1985: 52–53). Figure 436:5 corresponds to a cooking pot from Pella Phase 3 (Iron IB, suggested date 1130–1050 BCE, Fig. 460:7). A counterpart to our cooking pot in Figure 436:6 is from Tell el-Far‘ah North (CHAMBON 1984: pl. 52:2, Stratum VIIb) which produced several more parallels. This type is also represented at Tell Zera‘a (VIEWEGER and HÄSER 2005: fig. 8:16; here no chronological differentiation within the Iron Age). Similar shapes are from Kinneret Iron Age IB (MÜNGER *et al.* 2011: 84, pl. 22 third row nos. 3–5). The rim of our unusual cooking pot in Figure 435:3 is reflected in a cooking pot from Beth-Shean S-2, floor level, which is dated to Iron Age IB (PANITZ-COHEN 2009: 423, pl. 69:12). There are other cooking-pot shapes with variations of the triangular rim from Beth-Shean S-2 (but also later) which have counterparts in the Phase X material. Similar types are from Keisan, where they are common in Stratum 9c and

later (BRIEND and HUMBERT 1980: pl. 77:1 and 2, 11th century and later).

In summary, the parallels include primarily material which is dated at other sites in the 11th to the 10th centuries BCE, with the exception of the krater sherd in Figure 370:7 which may be residual.

Phase XI

From this phase derive a total of 8524 sherds, which corresponds to 9.3 % of the Iron Age assemblage (see also Tables 73A, B).

Our carinated bowl in Figure 392:4 has a counterpart in Rehov Stratum VI (Iron Age IIA, roughly 980–950 BCE, MAZAR 2005: 219, fig. 13.18:5). The bowl in figure 392:2 is similar to another one from Rehov Stratum VI (*ibid.* fig. 13.18:3), as is Figure 392:3 from the same stratum (*ibid.* fig. 13.18:4, but here with a flat base). From Megiddo Level L-3 (Palace 6000; corresponding to University of Chicago Strata VA-IVB, 9th century BCE according to FINKELSTEIN *et al.* 2000: 300) comes a carinated bowl which has a similar shape to ours in Figure 392:3 (FINKELSTEIN 2006: 306, fig. 15.3: 7).

The krater in Figure 403:3 shows some traits which are reflected in a krater from Rehov Stratum VI (MAZAR 2005: fig. 13.18:9). Figure 403:2 is similar to the krater KR55 which appears in P-8 at Beth-Shean (beginning of Iron Age IIB, after 840/830 BCE, MAZAR 2006: 335–337). A jug from Rehov Stratum V (mid-Iron Age IIA, around 930 BCE, MAZAR 2005: 226, fig. 13.23:15), is similar to ours in Figure 413:6.

Our one-handed jug with a neck ridge (Fig. 413:4) has a counterpart at Tell el-Far‘ah North Period IIB (“cultic structure” from Iron Age IIA, 10th century BCE, RAST 1978: 139:1, here with a wider mouth and neck) and at Pella Phase 4 (suggested date Iron Age IIA; 1050–950 BCE, Fig. 460:10, here with a more narrow mouth and neck). The two-handed jug¹¹⁶ in Figure 413:5 has a counterpart in Tell es-Sa‘idiyeh Phases 2–3 (suggested date 11th–10th centuries BCE, GREEN 2006: 365, fig. A.5.6).

The jar in Figure 427:4 has a parallel at Pella Phase 4 (Iron IIA, suggested date 1050–950 BCE, Fig. 460:11).

Cooking pots with triangular overhanging rims are still in use (Fig. 437:1 and 2). Parallels are from Beth-Shean (Type CP54) which there has a long life span from S-1 to P-7, i.e. Iron Age IIA-B (MAZAR 2006: 340–342). They have a similar long life span at Keisan

¹¹⁶ In his thesis GREEN (2006) describes it as a “cooking pot”. However, the vessel may have had another function (email from Green to the author 22 March 2012).

where they were still found in Strata 8 to 6 (Iron Age IIA-B; BRIEND and HUMBERT 1980: pls. 49, 52 and 55). Tell Zera'a produced a similar type (VIEWEGER and HÄSER 2005: fig. 8:19). Whereas it was the standard type in the previous phases at Tell Abu al-Kharaz it is now outnumbered by cooking pots with profiled and thickened rims (Figs. 437:4–6). Our cooking pot in Figure 437:3 is a derivative of the cooking pot with the triangular overhanging rim: it does not appear as CP55 at Beth-Shean until P-8 from where there are three recorded (beginning of Iron Age IIB, around 840/830 BCE, MAZAR 2006: 340). The cooking pot in Figure 437:5 has counterparts at Pella Phase 5 (Iron Age IIA, suggested date 950–830 BCE, Figs. 461: 3 and 4).

In summary, the parallels include primarily material which is dated at other sites mainly in the 10th and 9th centuries BCE.

Phase XII

From this phase derive a total of 18289 sherds, which corresponds to 19.9 % of the total Iron Age assemblage. The third largest assemblage is from this phase (see also Tables 73A, B).

Our rounded bowls in Figures 393:1 and 2 have parallels at Beth-Shean (MAZAR 2006: 325, fig. 12.1: 4–327; BL53). BL53 is most common in P-8 and P-7 (Iron Age IIB, 840/830–732 BCE according to Mazar). The thin-walled bowl with a flaring stance in Figure 393:9 has a counterpart at Beth-Shean (*ibid.* BL59). This type is also most common in P-8 and P-7. The same is true of our rounded bowl with the thickened and obliquely cut rim in Figure 393:11 (*ibid.* BL52). The latter has a good parallel from Lachish Stratum IV, Locus 63 (9th century BCE, AHARONI 1975: pl. 44:4). The carinated bowl with trumpet decoration (Fig. 393:12) is related to a bowl from Hazor Stratum VI (BEN-AMI *et al.* 2012: 444, fig. 6.5:7; approx. first half 8th century BCE). Tell es-Sa'idiyeh produced a bowl which is similar to ours in Figure 393:4 (Stratum VII, suggested date 825–790 BCE, PRITCHARD 1985: fig. 3:9).

Incense cups (Fig. 396) appear at Tell Abu al-Kharaz in this phase and continue at the site throughout the Iron Age. From Tell Deir 'Alla comes a comparable vessel (Iron Age IIB, VAN DER KOOIJ and IBRAHIM 1989: 97, fig. 61) and also from Pella Phase 5 (Iron Age IIA, suggested date 950–830 BCE, Fig. 461:1). Tell es-Sa'idiyeh produced a similar incense cup in Stratum VII (suggested date 825–790 BCE, PRITCHARD 1985:

figs. 1:19, 5:11, 12 and 21). At Beth-Shean it seems that they appear in S-1, i.e. beginning of Iron Age IIA and continue in P-8, Iron Age IIB (MAZAR 2006: 372 and 373; 413: pl. 13:6; 425: pl.19:8–10). However, the Beth-Shean examples and, for instance, the vessels from Taanach IIB (Iron Age IIA, RAST 1978: fig. 51:3) and Tell el-Far'ah North Stratum VIIb and c (10th–9th centuries, CHAMBON 1984: 213, pl. 54:12 and 13) are all different in shape.¹¹⁷

The kraters in Figure 404:2 and 7 have corresponding shapes in Beth-Shean KR55 and KR56 both of which are most common in P-8 and P-7 (Iron Age IIB, MAZAR 2006: 338). Our krater in Figure 404:6 is equivalent to KR51 at Beth-Shean which starts already in S-1 but which is also well-represented in P-8 and P-7 (MAZAR 2006: 335). The kraters with neck ridges in Figure 404:3 and 4 have counterparts at Rehov Stratum V (Iron Age IIA, MAZAR 2005: 227, fig. 13.24:7), and an equivalent to the krater in Figure 404:7 has been found in Stratum IV at Rehov (also Iron Age IIA, MAZAR 2005: 239, fig. 13.35:12). Tell es-Sa'idiyeh produced krater shapes which are similar to our Figure 404:5 (Stratum VII, suggested date 825–790 BCE, PRITCHARD 1985: fig. 1:10 and 12).

Our juglets with narrow necks and wide bodies (Figs. 414:1–3) appear in P-8 and continue in P-7 at Beth-Shean (MAZAR 2006: 367). There are also some of these juglets in Tell el-Far'ah North Stratum VIIId (9th–8th centuries BCE, CHAMBON 1984: pl. 51:13 and 14). The spouted juglet (Fig. 414:9) is similar to one from Hazor (BEN-AMI *et al.* 2012: 471, fig. 6.23:5) which belongs to Phase VIIb (second half of 9th century BCE). A new shape in Phase XII is the mug in Figure 414:4. A parallel, JG58, comes from Beth-Shean: it appears in P-8 and continues in P-7 (MAZAR 2006: 364, fig. 12.7; here called “trefoil-rim jug”). These mugs continue until the later part of the Iron Age (see e.g. Tell Deir 'Alla Phase VII which is dated to around 700 BCE, GROOT 2011: pl. VI:3). Our red-slipped jug with three concentric incisions on the shoulder (Figure 414:7) is of Phoenician style: it has a counterpart in P-7 at Beth-Shean (JG58 in MAZAR 2006: 364, photo 12.64, pl. 40:6; but here with a flat base).

The shape of our jug with two handles (Fig. 414:8) appears at Beth-Shean in P-8 and continues into P-7 (MAZAR 2006: 431, pl. 22:6, but here with one handle). The jug in Figure 414:5 has the same chronological distribution at Beth-Shean (*ibid.* 431, pl. 22:5).

¹¹⁷ See ZWICKEL 1990 for additional references, especially from Transjordan.

An excellent parallel to our complete monochrome- and bichrome-decorated “Phoenician-type”¹¹⁸ jugs in Figure 415:1–3 is from Tell el-Far‘ah North Stratum VIIId (9th–8th centuries BCE, CHAMBON 1984: pl. 46:8) and Megiddo Stratum VB (9th century according to FINKELSTEIN *et al.* 2000: 282, fig. 11.28:2; for dates see above). Derivatives of this type of jug were found in contexts of Phase XIII (Fig. 416:9) and XIV (Fig. 419:1 and 4). Also Hazor (BEN-AMI *et al.* 2012: 466, fig. 6.21:1 and 2) produced related shapes in Strata VIII–V, viz. 9th–8th centuries BCE. Our Cypriote Black-on-Red I juglet in Figure 415:4 has a parallel, *inter alia*, from Megiddo Stratum VB (FINKELSTEIN *et al.* 2000: 281, fig. 11.27:5) but also later in Strata VA–IVB (*ibid.* 288, fig. 11.32:1; see also SCHREIBER 2003: 4 and refs.).

The most common storage jar in Strata P-8 and P-7 at Beth-Shean is type SJ53 (MAZAR 2006: 346, fig. 12.4). It corresponds to our vessel in Figure 427:13.

A derivative of the once so popular cooking pot with the triangular rim is in Figure 438:1: it shows some shared traits with CP54 from Beth-Shean which is most common in P-8 and P-7 (MAZAR 2006: 340, fig. 12.3: CP54). It is noticeable that the fossil type for Iron Age IIB at Beth-Shean, the CP56 (*ibid.*), is not represented in the Phase XII material at Tell Abu al-Kharaz although some traits of this type start to appear in our assemblage.¹¹⁹ Figure 438:4 is reflected in a cooking pot from Tell el-Far‘ah North Stratum VIIId which is dated to the 9th–8th centuries BCE (CHAMBON 1984: pl. 52:5 and 6).

In summary, the parallels are primarily material which is dated at other sites mainly in the (10th) 9th and 8th centuries BCE.

Phase XIII

From this phase derive a total of 10505 sherds, which corresponds to 11.4 % of the Iron Age assemblage (see also Tables 73A, B).

There are numerous parallels to bowls from this phase but only a few will be mentioned. Our bowls in Figure 394:2–7 have counterparts in P-8 and P-8a at Beth-Shean (Iron Age IIB, MAZAR 2006: 423, pl. 18, *passim*). Hazor Stratum V, second half of 8th century BCE, produced counterparts to the bowl in Figure 394:6 (BEN-AMI *et al.* 2012: 439, fig. 6.2:7). The red-slipped carinated bowl (Fig. 394:8) depicts a shape which is foreign to the standard vessel forms from our

Iron Age contexts: it belongs to the Neo-Assyrian tradition and may have been locally made or imported (see “interregional chronology”).

Our kraters have parallels at Beth-Shean in P-8 and P-7, i.e. Iron Age IIB (all MAZAR 2006: 335, fig. 12.2): Figure 405:1 (KR56), Figure 405:2 and 9 (KR55), and Figure 405:4 (KR53). The hole-mouth kraters/jars in Figure 405:10 and 11 correspond to SJ59 at Beth-Shean in P-8 and P-7 (*ibid.* 354). Related shapes, the “gutter-rim kraters” from Hazor, already appear there in Stratum X–IX but became most popular in Phase VIII (BEN-AMI *et al.* 2012: 448, fig. 6.8:1 in particular; here dated to Stratum VIIId, viz. roughly mid-9th century BCE). Another related but larger shape is from Hazor Stratum VIIb (BEN-AMI 2012: 260, fig. 3.13:10; dated to approx. mid-9th century BCE).

This is the phase where the Black Juglets are well established at Tell Abu al-Kharaz (Fig. 416:7 and 8). They appear at Beth-Shean in P-8 and continue in P-7 (MAZAR 2006: 309–310, JT54). At Rehov they are reported from Stratum IV, late Iron Age IIA (MAZAR 2005: 240, fig. 13.36:11 and 12). At Megiddo they are in Strata VA–IVB but here with pointed bases (second half of 9th century according to FINKELSTEIN *et al.* 2000: 289, fig. 11.33:1 and 4; 297, fig. 11.39:1, 6, and 12, the last with a round base). Tell es-Sa‘idiyeh produced similar black juglets in Stratum VI (suggested date 790–750 BCE, PRITCHARD 1985: fig. 7:1–4).

Our large globular jug with three handles and juglet support (Fig. 417:1) corresponds to almost identical vessels from Beth-Shean P-7 (MAZAR 2006: 358 AM54, pl. 38:1), Megiddo H3 (8th century BCE, FINKELSTEIN *et al.* 2000: 306, fig. 11.46:14) and Tell el-Far‘ah North (CHAMBON 1984: pl. 46:9 and 10, Stratum VIIId which he dates to 9th–8th centuries BCE). From Hazor Stratum V comes a similar vessel (BEN-AMI *et al.* 2012: 465, fig. 6.20; dated to the second half of the 8th century BCE). Another one is from Tell es-Sa‘idiyeh Stratum VI (suggested date 790–750 BCE, PRITCHARD 1985: fig. 9:13).

Our Phoenician jug (Fig. 416:10) resembles another one from Tell el-Far‘ah North (CHAMBON 1984: 49:21, Stratum VIIId); it is also related to an example from Hazor (BEN-AMI *et al.* 2012: 468, fig. 6.22:9; here dated to Stratum VIIId, first half 9th century BCE). The shape of the plain two-handled jug (Fig. 416:9) is almost identical with the monochrome- and bichrome-

¹¹⁸ This should be considered as a “working term” because good parallels from Phoenicia itself are missing (personal communication F.J. Núñez 8 July, 2009). However, these vessels are certainly imports to the site.

¹¹⁹ A. Mazar declares that the mention of CP56 in P-9 in Table 12.8 should be discarded (email 5 March, 2012).

decorated jugs from Phase XII (Figs. 415:1–3). A parallel to this undecorated jug comes from Tell es-Sa‘idiyeh Stratum VII (suggested date 825–790 BCE, PRITCHARD 1985: fig. 5:4).

The neck-ridged jar (Fig. 428:7) corresponds to Beth-Shean SJ52b from P-8 and P-7 (MAZAR 2006: 346–349, but here with a marked shoulder). Type I storage jars from Hazor which correspond to our neck-ridged jar have a life span from Phases VIII–IV, mainly 9th and 8th centuries BCE (BEN-AMI *et al.* 2012: 457–458).

The cooking pot with the triangular rim is no longer in use. Our cooking pots in Figure 439:1–3 are variants of CP56 from Beth-Shean where its life span covers P-8 to P-7 (MAZAR 2006: 340, fig. 12:3). Figures 439:1 and 2 are similar to Pella Phase 6 (Iron Age IIB, suggested date 830–730 BCE, Fig. 461:6). Our cooking pot with a pinched rim in Figure 439:8 has a parallel in Hazor Stratum VI (BEN-AMI *et al.* 2012: fig. 6.11:6, dated approx. first half 8th century BCE) and Lachish Stratum IV, Locus 63 (AHARONI 1975: pl. 44:5). Tell es-Sa‘idiyeh produced a cooking-pot type which is almost identical with ours in Figure 439:6 (Stratum VII, suggested date 825–790 BCE, PRITCHARD 1985: fig. 3:30–32). The cooking pots in Figure 440 are all similar to two cooking pots from Pella Phase 6 (Iron Age IIB, suggested date 830–730 BCE, Figs. 461:7 and 8).

In summary, the parallels consist primarily of material which is dated at other sites mainly in the second half of the 9th, and the 8th centuries BCE.

Phase XIV

From this phase derive a total of 21556 sherds, which corresponds to 23.4 % of the Iron Age assemblage (see also Tables 73A, B). The next largest Iron Age pottery assemblage is from this phase.

The shape of our bowls with T-rims (Figs. 394:13 and 14, 395:2–4) is reflected in BL56 at Beth-Shean, which has quite a long life span from S1-P7 (Iron Age IIA–B, MAZAR 2006: 330). The bowl in Figure 395:4 is very similar to another one from Tell Deir ‘Alla (Phase VII dated around 700 BCE, GROOT 2011: pl. IV:25) and from Pella Phase 6 (Iron Age IIB, suggested date 830–730 BCE, Fig. 461:5). This T-rim bowl type is the most common in P-8 and P-7 at Beth-Shean (MAZAR 2006: 324 and 325). There are also several bowls of this type from Tell es-Sa‘idiyeh in Stratum V (suggested date 750–730 BCE, e.g. PRITCHARD 1985: fig. 10:17).

There is a small bowl which shows affinities with Assyrian vessels (Fig. 395:7). Shapes which are similar to this bowl come, for instance, from Tell el-Far‘ah North Strata VIIId and VIIe (9th/8th–7th centuries

BCE, CHAMBON 1984: pl. 61:1–11; cf. ANASTASIO 2010: 107, pl. 15:1–10). The general shape of this bowl is also comparable with a vessel from Tell Deir ‘Alla (Phase VII, dated around 700 BCE, GROOT 2011: pl. II:31). The shape of the “closed”, thin-walled and burnished, bowl in Figure 395:8, which is an import, is similar to a group of bowls from Tell Deir ‘Alla (Phase VII dated around 700 BCE, GROOT 2011: pl. IV:4). The small bowl with handles (Fig. 394:16) resembles another one from Beth-Shean P-8 (MAZAR 2006: 333, BL60, but here with everted rim).

The krater in Figure 406:4 is similar to type KR55 at Beth-Shean P-7 (MAZAR 2006: 445, pl. 30:2). The hole-mouth kraters/jars (Fig. 406:10 and 11) are reported only from Beth-Shean in P-8 and P-7 (MAZAR 2006: 345 and 346). Certain traits of our large globular krater standing on three loop handles (Fig. 407:2) are visible in a vessel from Megiddo Stratum IV (9th century BCE, FINKELSTEIN *et al.* 2000: 320, fig. 11.57:2).

The red-slipped, Phoenician-type, juglet (Fig. 419:6) corresponds to one from Beth-Shean P-7 (JG58 in MAZAR 2006: 463, pl. 40:6) and is similar to another one from Megiddo H-3 (8th century BCE, FINKELSTEIN *et al.* 2000: 305, fig. 11.45:5).

The juglet with the elongated body (Fig. 419:10) is in principle comparable with JT56 from P-8 and P-7 at Beth-Shean (MAZAR 2006: 431, pl. 22:12 and 13, but here the handles are placed differently). Our jugs in Figures 419:1 and 4 are derivatives of the jugs in Phase XII (Figs. 415:1–3). The former has an equivalent in P-7 at Beth-Shean (*ibid.* 467, pl. 42:17) and at Rehov in Stratum IV which is dated to the later part of the 9th century BCE (MAZAR 2005: 240, fig. 13.36:2).

A frequently found type in this phase is the “jug-decanter” (Fig. 419:8 and 9), which is common in P-8 and P-7 at Beth-Shean (MAZAR 2006: 360, JG55). Another one comes from Megiddo H-3 (8th century BCE, FINKELSTEIN *et al.* 2000: 315, fig. 11.53:3). Tell el-Far‘ah North also has parallels in Stratum VIIId (9th–8th centuries BCE, CHAMBON 1984: pl. 61:27–29). The large globular jug with three handles and juglet support (Fig. 420:5) is a derivative of our Phase XIII (Fig. 417:1) which is found in P-7 at Beth-Shean (see above). It is also common at Tell es-Sa‘idiyeh in Stratum V (suggested date 750–730 BCE, PRITCHARD 1985: fig. 11:11–13).

The neck-ridged jar in Figure 429:6 corresponds to SJ52 at Beth-Shean, where it is most common in P-8 and P-7 (MAZAR 2006: 345–346), and to a jar from Megiddo H-3 (FINKELSTEIN 2006: 314, fig. 15.8:4). Type II storage jars (“Hippo” jars) from Hazor, which correspond to our neck-ridged jar in Figure 429:6, have a life span from Phase XB to VII; they are less

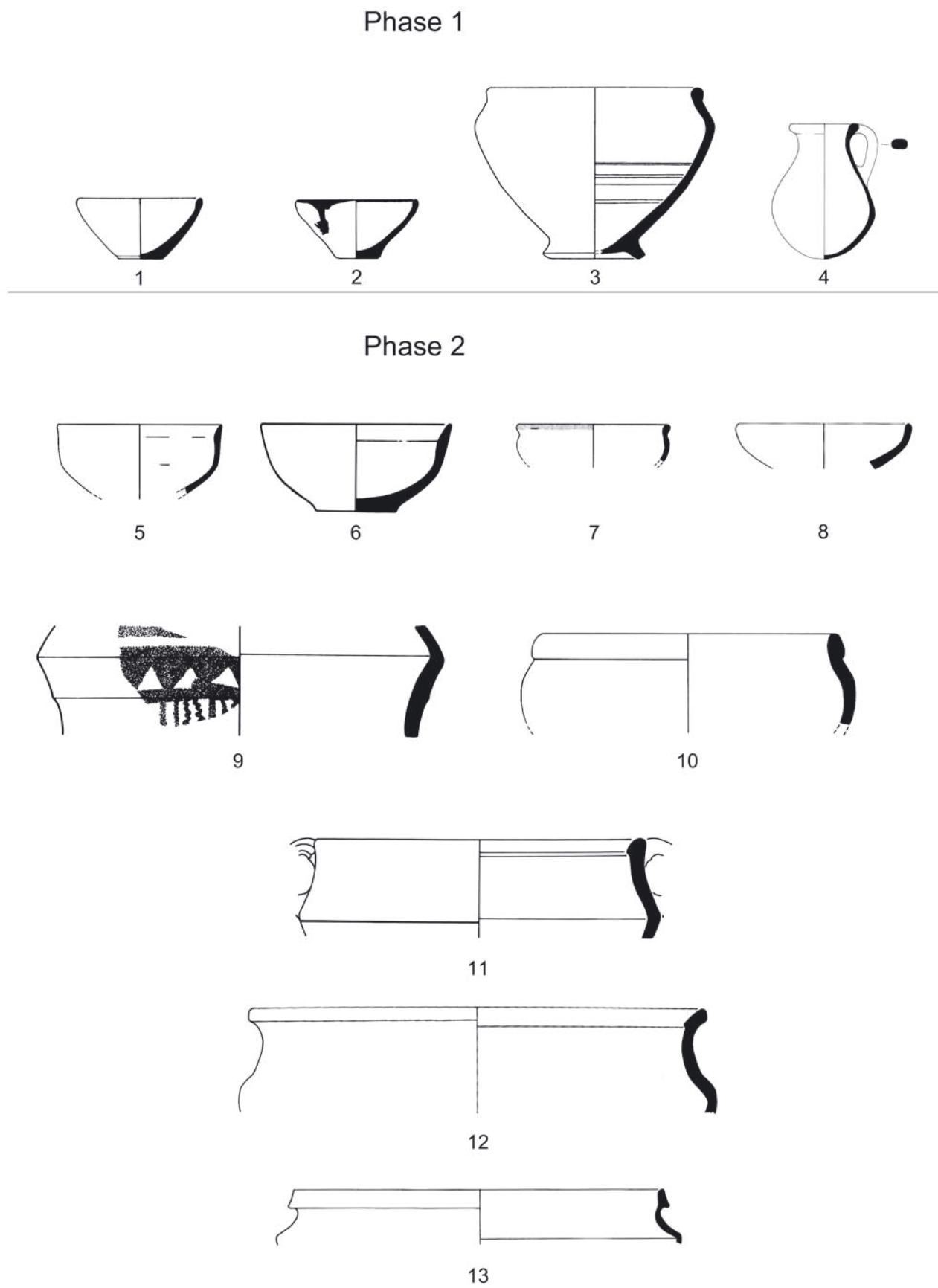


Fig. 459 Pottery from Pella Phases 1 and 2

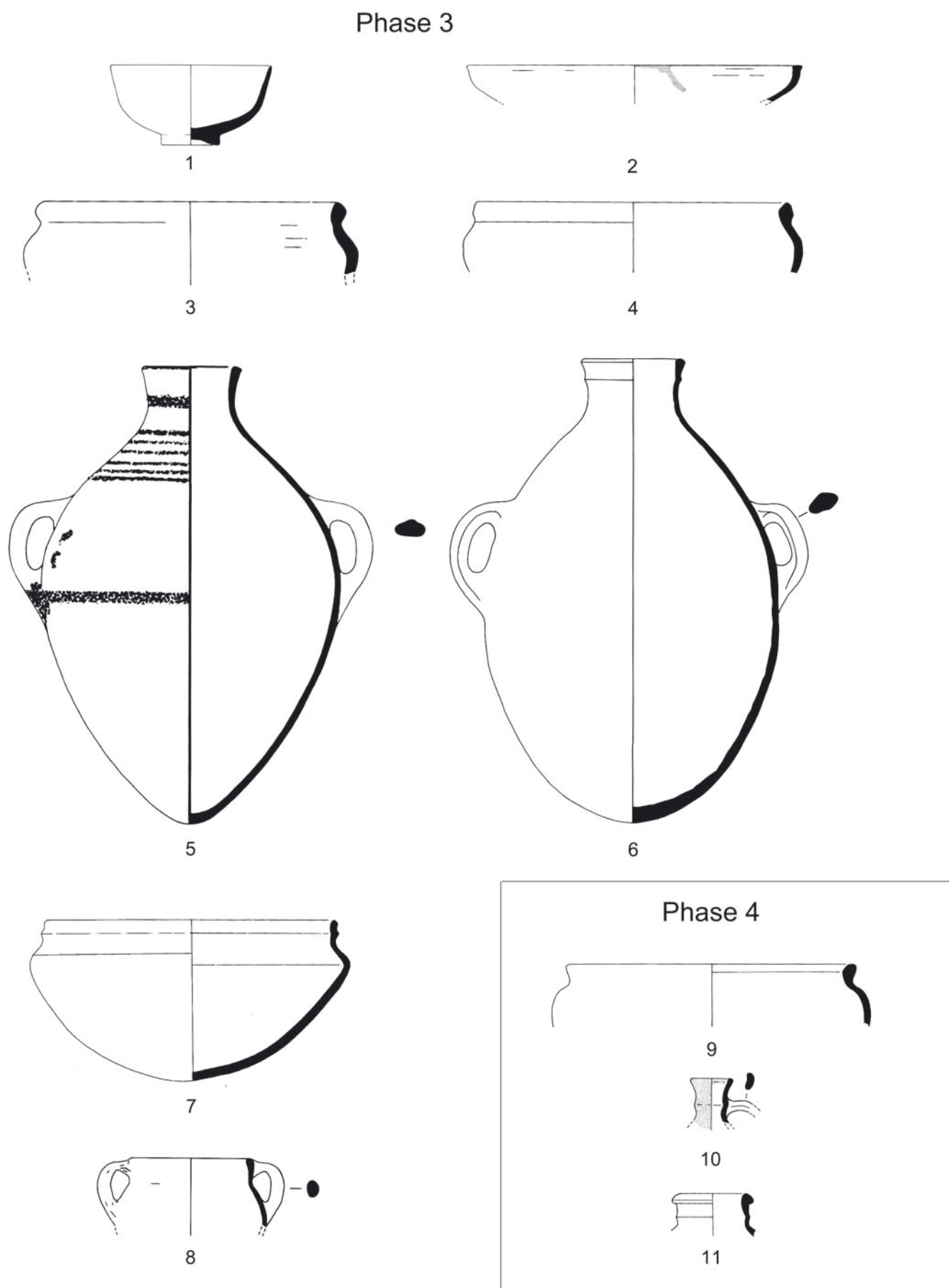


Fig. 460 Pottery from Pella Phases 3 and 4

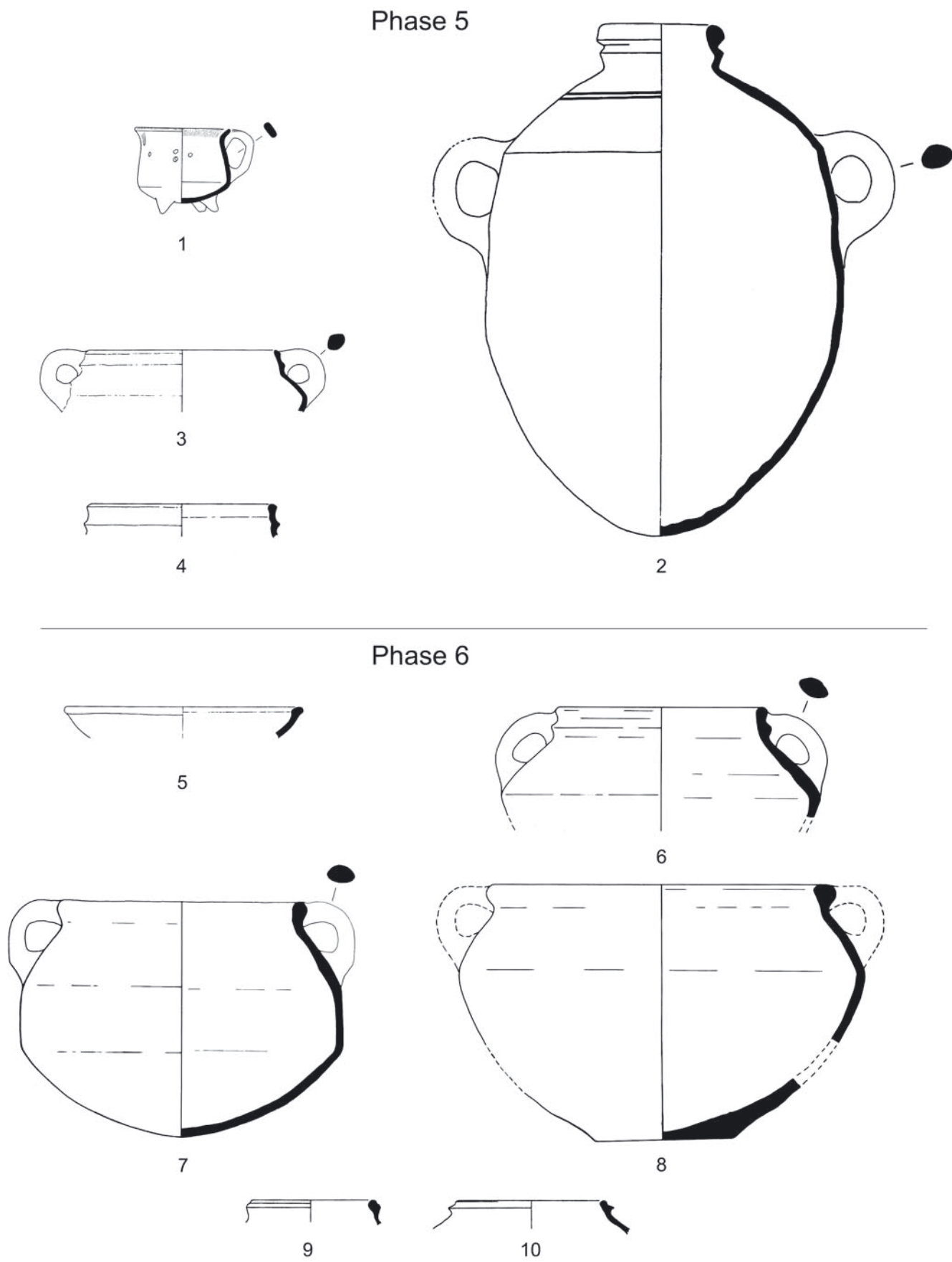


Fig. 461 Pottery from Pella Phases 5 and 6

frequently found in the later part of the Iron Age II (BEN-AMI *et al.* 2012: 457, 459). Another parallel from our jar is from Pella Phase 5 (Iron Age IIA, suggested date 950–830 BCE, Fig. 461:2).

It is interesting to note that the most common cooking-pot types from this phase (Fig. 441) with upright or inverted, often thickened, rims have no good parallels from Beth-Shean. However, related types are from Pella Phase 6 (see above in Phase XIII). Type CP56 (MAZAR 2006: 340) is similar to another of the common types at Tell Abu al-Kharaz (Figs. 442:3 and 4). These two vessel shapes are also reflected in Pella Phase 6 (Iron Age IIB, suggested date 830–730 BCE, Figs. 461:7 and 8) and Tell Zera'a (VIEWEGER and HÄSER 2005: fig. 8:21).

In summary, the parallels are primarily material which is dated at other sites mainly in the second half of the 9th, and 8th centuries BCE.

Phases XIV or XV

From Phase XV derive a total of 209 sherds, which corresponds to 0.2 % of the Iron Age assemblage (see also Tables 73A, B). The remains of this phase are in principle on the present surface. Consequently it has suffered considerably from erosion and later activities. Secure separation of Phase XV from Phase XIV was only possible in Areas 1 and 3. The two phases could not be satisfactorily separated in Area 10. From these mixed phases derive a total of 2906 sherds, which corresponds to 3.2 % of the total Iron Age assemblage. The pottery does not differ very much from that of the previous Phase XIV. There are though a number of sherds which date to the latest Iron Age phase, i.e. the traditional Iron Age IIC.

3. Interregional synchronization¹²⁰

Phase IX

There are similarities between some of our bowls (e. g. Figs. 389:2, 8 and 13) and those of Egyptian shapes from Beth-Shean. Accepting the dates of the nearby “Egyptian garrison” at Beth-Shean would point to a date in the outgoing Late Bronze Age and the beginning of the Iron Age, viz. within the 12th century BCE.

Other types and shapes which are foreign to the local pottery repertoire include two vessels with quite a thick white slip: one is the plain bowl standing on

three loop-handles (Fig. 389:15) and the other is the jug with the monochrome decoration including concentric semicircles (Fig. 409:3) which may both have been produced in the same workshop. This specific arrangement of the concentric semicircles on our jug is also observable in a Submycenaean lekythos (FS 124; see MOUNTJOY 1986: 198, fig. 263). The same pattern is fairly common in Late Helladic IIIC contexts (roughly 1190–1050 BCE). It should also be noted that the semicircle-decoration can be found on a stirrup jar from the current excavations of the author at Hala Sultan Tekke, Cyprus, which was a thriving city in the 12th century BCE (FISCHER 2012b: 94, fig. 3:1). It seems that this Aegean-influenced pattern has arrived with the Sea Peoples in the Levant and has been used on a modified Canaanite shape.¹²¹

It has been mentioned that Tell Deir ʿAlla offers other parallels to our goblets (Fig. 399: 1–4) from the Late Bronze Age temple (FRANKEN 1992: 40, figs. 4–3:15 and 4–24:6). From the same compound as the goblets from the Tell Deir ʿAlla temple come Mycenaean stirrup jars which predate the temple context (Late Helladic IIIA2–IIIB according to VAN DER KOOJ 2006: 219). The type of goblet in our Fig. 399:3 has a wide distribution; it is reported, for instance, from Sarepta in Stratum D1 (ANDERSON 1988: 627, pl. 33:18; according to p. 423 Strata D2 and D1 are dated 1025/1000–850/825 BCE).

Our decorated, spouted, strainer-jug with a broken-off rim and most likely a basket handle¹²² (Fig. 411:5) has a good parallel from Ashdod Stratum XIIIb in Area G which is dated to Iron Age IA (DOTHAN and PORATH 1993: 15, 175, fig. 15:10). This type of jug is somewhat related to Mycenaean counterparts which were produced throughout the Late Helladic IIIC (FS 159: cf. MOUNTJOY 1986: 203; see also DOTHAN and PORATH 1993: 56).

The globular jug with a double handle (Fig. 412:7) and light reddish-yellow burnished slip has a matt bichrome decoration of narrow black lines enclosing wide red bands and a black dot in the centre. The general shape and the decorative pattern reflect both Phoenician and Cypriote influences. A similar globular jug comes from Tyre Stratum XIII-1 (BIKAI 1978: pl. XXXIII:25). Bikai dates this stratum to after 1070/50 BCE, viz. the end of Tyre XIV (*ibid.* 66), or SCHREIBER (2003: 208) according to a tentatively

¹²⁰ References to comparable material are in the previous subchapter under the heading “regional synchronization”.

¹²¹ AMIRAN (1969: 266–269) shows a collection of “Philistine” vessels with the concentric semi-circle decoration.

¹²² There are no traces of a handle on the belly, shoulder or neck. It is therefore most likely that the vessel had a basket handle.

revised chronology 1100–1050 BCE (SCHREIBER 2003: 208). However, all these dates are mainly based on Gjerstad's chronology (see e.g. GJERSTAD 1948: 421–422) and not supported by radiocarbon. Schreiber's dates on Tyre, for instance, reflect this very well: they seem to be mainly based on Cypriote ceramics and the conventional Biblical chronology. More recent comparative dates for Tyre XIII are presented by NÚÑEZ CALVO (2008: 83, fig. 33): Tyre XIII corresponds in Phoenician terms to Early Iron a (second half 11th century BCE) which is contemporaneous with Al-Bass Period I and "Kouklia" in Cyprus. GILBOA (1999: 9) considers the narrow black lines enclosing wide red bands a typical Cypriote trait (*ibid.* 7, fig. 5). Of interest is the Cypriote vessel from Paleopaphos *Skales* Tomb 49 (*ibid.* fig. 5:9 and 10, and further references to Iron Age IB material).

Several of our pilgrim flasks are imports. The two pilgrim flasks with cup mouths (Fig. 412:1 bichrome-, and Fig. 412:2 monochrome-decorated) have no good parallels in Phoenicia or Cyprus. The centrally placed wheelspoke pattern is a reminder of decoration on Philistine vessels, and our vessels may be ascribed to the Philistine sphere of culture. The general shape of our pilgrim flask (Fig. 412:5) is reflected in a vessel from Tyre Stratum XIII-2 (BIKAI 1978: pl. XXX-VII:3 but here undecorated; see also NÚÑEZ CALVO 2008: 83, fig. 33).

The double-pyxis with a basket handle (Fig. 430:8) and one false spout resembles composite vases (and stirrup jars) from the Mycenaean sphere of culture (cf. MOUNTJOY 1986: 170, fig. 217 where the examples from Perati are dated to Late Helladic IIIC Middle, i.e. around 1100 BCE). The metope decoration on our double-pyxis is again a trait which is often found on vessels from the Southern Levant in the Late Bronze and early Iron Ages. In the Aegean this vessel type, the "rounded alabastron" (FS 80–86), flourished from Late Helladic I–IIIC Early.

Our closed cooking pots of the type illustrated in Figures 433:2–5 and 434 are represented in Phase IX and occur only sporadically in Phase X (see Fig. 435:1). This type of cooking pot shows Aegean and possibly Philistine traits (cf. the general Aegean type in YASUR-LANDAU 2010: 128–129 and the Philistine offspring, *ibid.* 232). In Palestine the majority of this type of cooking pots from, for instance, Pella, Megiddo, Tell Qasile, Yoqne'am, Ashdod, Ashkelon, Tel Mique/Ekron and Qubur al-Walaydah are dated to the (out-

going 12th and) 11th century BCE. At Tell Abu al-Kharaz this type appears together with the Canaanite standard cooking-pot type with the triangular rim (see in our Figs. 432–434 where both types from the same building are illustrated). It is worthwhile noticing that this closed type is very closely related to cooking pots from the current excavations of the author at Hala Sultan Tekke, Cyprus, which was a thriving city in the 12th century BCE (FISCHER 2011b; 2012b).

In summary, parallels from outside Palestine and those which demonstrate foreign influences from Palestine itself include material which is dated to the 12th and, mainly, 11th centuries BCE.

Phases X and XI

There is almost no material for intercultural synchronization from these two phases. They are very much related and obviously close in time. The assemblage of one of the best chronological indicators, the cooking pot, demonstrates that the cooking pots with closed shapes are rare in Phase X (Fig. 435:1) and totally missing in Phase XI. The standard Canaanite cooking pot type with the triangular rim and the rounded base dominates in both phases.

The shape of the krater with the triangular pattern from Phase X (Fig. 402:7) is reported from Late Bronze Age IIB and Iron Age IA contexts in both Cis- and Transjordan: it is possible that our sherd is residual.

Phase XII

There are three (almost) complete and several incomplete, monochrome- and bichrome-decorated, burnished jugs (Fig. 415:1–3). There are some traits, for instance the shape of the base and handles and the horizontal burnishing, which are typical of vessels from the cemetery of Al-Bass, Period III (roughly beginning 8th century onwards).¹²³ The general shape of these vessels also occurs in the western Mediterranean, Carthage, Malta, and even in the Tartessian area in Spain, where they are called "Urnas de Cruz del Negro" (AUBET 2009: 83). There is a very faint resemblance between the shapes of our jugs and some Black-on-Red II (IV) amphorae from Cyprus (GJERSTAD 1948: 70–71, pl. XL). It seems that these jugs were produced in an elusive centre, the location of which is not known to date. However, considering the

¹²³ This date seems to be based on parallels from other sites (AUBET 2004: 465, fig. 312). Al-Bass may be the principle cremation necropolis of Tyre throughout the Iron Age. I am grateful to F.J. Núñez for much of this information.

distribution of these vessels in Palestine a production centre in the north of Palestine is suggested.

Our red-slipped jug with three concentric incisions on the shoulder above a spherical body (Fig. 414:7) is of Phoenician style (cf. similar Phoenician vessels from Cyprus in BIKAI 1987: pls. XV and XVI; dates insecure). Amongst others one parallel is reported from Sarepta which produced a similar globular-shaped vessel from Stratum C1 (ANDERSON 1988: 635, pl. 37:1; according to p. 423 Strata C2 and C1 are dated 850/825–650? BCE).

There are some genuine Cypriote Black-on-Red I juglets from the site (see e.g. Fig. 415:4).¹²⁴ SCHREIBER (2003) suggests a date around 950 BCE for the production start of BoR Ware, and that it was in use throughout at least the 9th century BCE.¹²⁵

In summary, parallels to imports include primarily material which is dated at other sites mainly in the (10th) 9th and 8th centuries BCE.

Phase XIII

The red-slipped carinated bowl (Fig. 394:8) depicts a shape which is foreign to the standard vessel forms from our Iron Age contexts:¹²⁶ It obviously belongs to the Late Assyrian tradition and may have been locally made or imported (cf. ANASTASIO 2010: 107, pl. 15:1–10; he places this type in IA 2 and 3, i.e. from mid-8th century BCE).

The plain Phoenician-type jug (Fig. 416:9) is almost identical with the monochrome- and bichrome-decorated jugs from Phase XII (Figs. 415:1–3). It seems to be a late “budget version” of the jugs with identical shapes from the previous phase.

In summary, the parallels which are related to imports are dated mainly in the 8th century BCE.

Phase XIV

Another Assyrian-type vessel comes from this phase (Fig. 395:7). It seems to be a local copy of the Late Assyrian bowls (see above) which have a rounded base (see above).

A vessel which can be compared with our unusual globular krater standing on three loop-handles (Fig. 407:2) comes from Amathus Tomb 111/10 in Cyprus (BIKAI 1987: pl. VIII:130, proposed date “after 700 BCE” (*ibid.* 69)).¹²⁷ The Cypriote vessel is of obvious later date (as proposed) and may have been influenced

by prototypes from the Levant. A Cypro-Geometric (BoR I) juglet comes from a possibly disturbed context (Fig. 218:7 and context description in Chapter 2; Fig. 420:6).

Another import is the red-slipped, Phoenician-type, juglet with three concentric incisions on the shoulder above a slightly pear-shaped body (Fig. 419:6; cf. similar Phoenician vessels from Cyprus in BIKAI 1987: pls. XV and XVI; dates insecure). A similar one is from Sarepta from Stratum C1 (ANDERSON 1988: 635, pl. 37:1; here dated 850/825–650? BCE according to p. 423; see also our Phase XII juglet in Fig. 414:7).

The Phoenician-type jug with the imitation of rivets (Fig. 420:4) is a copy of metallic prototypes. It fits Phoenician metropolitan standards but is devoid of any surface finish. Similar vessels come from Cyprus. BIKAI (1987: 53, pl. XIV) ascribes these vessels to the “Salamis Horizon”, the beginning of which is problematic (850 BCE?, *ibid.* 69) but whose first half corresponds to Al-Bass cemetery Period II (AUBET 2004: 465). The end of the “Salamis Horizon” (end of Al-Bass III) is tentatively placed around 750 BCE (NÚÑEZ CALVO 2008: 83, fig. 33). The period of Al-Bass II and III combined corresponds to Tyre X-IV (AUBET 2004: 465, fig. 312; NÚÑEZ CALVO 2008: 83, fig. 33). It seems that this type is usually dated earlier than our context would allow. However, this obvious copy of other vessels lacks the standard surface finish of such vessels, namely the thick red slip, and may therefore be a very late copy of earlier originals, a kind of “survivor”.

The jugs in Figures 419:1 and 4 are derivatives of the Phoenician jugs in Phase XII (Figs. 415:1–3). However, they seem to represent local copies of an older, imported, prototype.

Phase XV

The pottery from this superficial and consequently fairly disturbed phase is mainly from the conventional Iron Age IIC period. From the terminal Iron Age comes a scarab of blue faience (N38, Fig. 47:12) which is of the Egyptian Naukratis-type. The suggested date for this scarab from the 26th Dynasty is 620/600 to shortly after 550 BCE (e.g. EGGLEER and KEEL 2006: 278, 1).

¹²⁴ These are Cypriote imports and not local copies.

¹²⁵ Cf. the much lower chronology of GJERSTAD 1948: 423 and 423.

¹²⁶ There are a few other sherds which may belong to this vessel type.

¹²⁷ This date is by no means a fixed date. Bikai points to several problems.

B. Absolute chronology and chronological conclusions

The uncalibrated and calibrated dates can be studied in Table 75A in Chapter 4 (see also Plot 1 in the same chapter). The radiocarbon samples from Phase IX, Area 9 East, are from a single destruction event. The exact date of this destruction cannot be resolved by radiocarbon alone. This is due to the flat calibration curve – which also exhibits some wiggles – in the area of the determined mean value, viz. 2917 ^{14}C years BP (see Plot 1 in Chapter 4). This determined mean value is very precise with an uncertainty of only ten ^{14}C years. Therefore – ignoring an eight-year period with a lower probability – we conclude that the phase IX destruction event must have occurred between 1193 BCE and 1049 BCE on the basis of the usual 95.4 % probability. If we reduce the requested probability to 68.2 % the time frame for this event is narrowed from 1128 BCE to 1055 BCE. In any case, a date later than 1049 BCE is not possible for the destructive event of Phase IX taking both 1σ and 2σ probabilities into consideration.

The unsequenced calibrated dates from Phase X onward follow very well the occupational sequence. There is, however, some scatter in Phase XI. From Phase XII onward, the calibration of the radiocarbon date produces broader time ranges which are caused by the well known Hallstatt plateau in the calibration curve. Considering the calendar date of 732 BCE, the well-documented conquest of the area by the Neo-Assyrian empire, as a *terminus ante quem* for Phase XIV, it was possible to calculate a short Bayesian sequence for the Phases XII to XIV. After removing two dates with low agreement indices from Phase XIII (VERA-5282HS and VERA-5275HS) an overall agreement index of ~90 % was achieved: the transition from Phase XIII to XIV is within the time span from 787BCE to 759BCE (95.4 % probability).

Table 83 shows the complete Bronze and Iron Age occupation of the site including the proposed duration of the various phases as a result of the previous discussion on relative and absolute chronology, and earlier publications.

Phases ¹²⁸	Duration BCE	Periods	Comments
IA-B	3150–3050	EB IB	Chalcolithic sherds but earliest structures in Phase IA (EB IB), possible earthquake ends Phase IA; much preserved of Phase IB, many well-preserved structures, first city wall, flourishing society with rich find assemblage, imports from Egypt (Naqada IIIB) and Lebanon (Proto Metallic), major catastrophe/conflagration (earthquake?), possibly short occupation lacuna
IIA-B	3050–3000	EB II	Well-preserved, massive city wall with possible tower, well-preserved domestic compounds, flourishing society, imports from Lebanon, probable earthquake ends Phase IIA, immediate reoccupation in Phase IIB (similar material) which ends in a major catastrophe/conflagration (earthquake?)
IIIA-B	3000–2900	EB II	Small scale reoccupation (“squatter occupation”), typical EB II pottery, minor destruction ends Phase IIIA, another destruction ends the Early Bronze Age occupation
Lacuna	2900–?1800	EB III-MB I	Site abandoned for 1100 (?) years
IV/0	18th cent.	MB I	Presence of people ascertained through early Tell el-Yahudiyeh Ware
IV/1	c. 1600	MB III	Little preserved, reuse of the EB defence system, industrial activities, typical late MB pottery, imports from Cyprus, Lebanon, general conflagration/destruction
IV/2	1600–1525	MB/LB	Limited material preserved, city wall with casemate system, tower, commercial activities, imports from Lebanon from Phase IV/1 or 2, Chocolate-on-White Ware parallel with Tell el-Dab’a e/2, general conflagration/destruction ends this phase
V	1525–1450	LB IA	Well-preserved, casemate system, commercial activities (bakery), pottery production, rich find assemblages incl. Cypriote Base-ring I, Cypriote White Slip I from Phase IV/2 or V, imports from Lebanon, violent conflagration/destruction
VI	1450–1400	LB IB	Limited material preserved, partial repair, casemate system, new structures, Cypriote early White Slip II from Phase VI (or VII), no clear traces of destruction
VII	1400–1350	LB IB/C-IC	Well-preserved small temple with rich finds, Cypriote White Painted Wheel-made, White Slip II (bowls and tankard) and Base-ring I, conflagration/destruction
VIII	1350–?	LB IC-II	Scanty remains, much destroyed by Iron Age settlers, likely destruction
Lacuna		LB II	
IX	1100–1050	IA IB	Well-preserved, flourishing multicultural society, centralized planning, reuse and improvement of older defence installations, cell-plan structures with upper storey, Sea Peoples/Philistine-related finds, (direct/indirect) contacts with Cyprus, Phoenicia and the Aegean sphere, Egyptianizing pottery, major catastrophe/conflagration (assault)
X	1050?–930	IA IB/(IIA)	Moderately well-preserved, only regional cultural connections, certain repair of cell-plan structures, destruction
XI	930–850	IA IIA	Moderately well-preserved, only regional cultural connections, repair of older structures, destruction/conflagration
XII	850–800	IA IIA/B	Fairly well-preserved, new towers, contacts with Cyprus and Phoenicia, destruction/conflagration
XIII	800–770	IA IIB	Fairly well-preserved, new towers, non-standardized domestic structures, contacts with the Cyprus, Phoenicia and the Neo-Assyrian cultural sphere, destruction/conflagration
XIV	770–732	IA IIB	Well-preserved, prosperous society, new towers, fairly standardized interconnected domestic structures (4-room house type, more than one storey), metal workshop, contacts with the Cypriote, Phoenician, and Neo-Assyrian cultural sphere, destruction/conflagration – most likely by Assyrian invaders
XV	732–600	IA IIC	Little preserved (on today’s surface), impoverished small settlement

Table 83 Summarizing comments and suggested dates for the Bronze and Iron Age occupation of Tell Abu al-Kharaz

¹²⁸ Pre-Iron Age periodization according to FISCHER 2006a, 362–374 and 2008, 340–385. First evidence of another phase, Phase IV/0, comes from the excavations in 2013.