

A PRELIMINARY REPORT OF THE ARCHAEOLOGICAL EXCAVATIONS AT HIRBEMERDON TEPE, SOUTHEASTERN TURKEY, 2005

*Nicola Laneri,
Anacleto D'Agostino, Mark Schwartz, Stefano Valentini, and Giuseppe Pappalardo**

1. INTRODUCTION¹

Hirbemerdon Tepe is located along the west bank of the upper Tigris river valley in southeastern Anatolia (Turkey), about 40 km east of Bismil in the Diyarbakır province (Fig.1). The third season of archaeological work was conducted between July 10th and August 15th 2005,² as part of a broader rescue project related to the construction of the Ilisu dam along the Tigris river in Turkey.

Following the completion of the first two years of preliminary studies, the archaeologists were able to define the overall chronology of the site and, through a geophysical survey, a partial orientation of some of the sub-surface structures. The third season aimed to test these preliminary results with two principle objectives: first, to expose a large architectural sector in the High Mound (Area A) belonging to a late Third/first half of the Second Millennium BC local cultural horizon; and second, to perform a sounding in the Outer Town (Area B) for the purpose of obtaining a clear chronological stratigraphy for this specific part of the site.

* Nicola Laneri: Istituto Italiano per l'Africa e l'Oriente, Rome; Anacleto D'Agostino: University of Florence; Mark Schwartz: Grand State Valley University; Stefano Valentini: University of Florence; Giuseppe Pappalardo: CNR Italy.

¹ We would like to thank the Ministry of Culture and Tourism of Turkey for its support and the permit for our archaeological work at Hirbemerdon Tepe, and, especially, Ms. Nilufer Babacan (Ministry of Culture and Tourism, Ankara) who was our representative in the field and constantly helped us with her overwhelming support during the excavation season.

The project was jointly planned with Necdet Inal (Director of the Museum of Diyarbakır) as part of the Ilisu dam project, and to him goes our warmest acknowledgment.

Our special acknowledgments for the success of the third season of archaeological work at Hirbemerdon Tepe go also to the Italian Embassy of Ankara and to the Consulate of İzmir, to 7. Kolordu Komutanlığı Diyarbakır, to Emniyet Genel Müdürlüğü Yabancılar Şubesi, to Dr. P. Pugsley, to the people of Ahmetli, where we were based, and, most of all, to all the workmen without whom this project would not be possible.

But, our deepest acknowledgments go to Bradley Parker, Director of the UTARP. Without his incredible logistical and scientific support this season would not have been possible.

The project was financially supported by the Italian Ministry of Foreign Affairs, the Istituto Italiano per l'Africa e per l'Oriente, and private donors.

² The participants of the third season were: Ms. N. Babacan (representative, Ministry of Culture and Tourism), Mr. S. Valentini (field director, University of Florence), Mr. A. D'Agostino (area supervisor, University of Florence), Ms. F. Gulli (register and illustrator, University of Naples – L'Orientale), Ms. C. Okal (illustrator, University of Diyarbakır), Ms. D. Erdem (archaeologist, Middle East Technical University, Ankara), Ms. U. Devrim (archaeologist and illustrator, Middle East Technical University), Ms. K. Abend (conservator), and Dr. N. Laneri (project director, ISIAO).

Hirbemerdon Tepe has a size of about 10.5 hectares. The highest point of the site is positioned at 610 m above sea level and overlooks the entire valley created by the confluence of the Batman Su and Tigris Rivers. The site is bordered by the bed of the Tigris along the eastern side, while the northern side of Hirbemerdon Tepe has been eroded by a modern irrigation channel. Moreover, this region is separated from the Syrian Jazirah by the Tur 'Abdin mountains (Laneri 2005).

Hirbemerdon Tepe's ancient settlements were built atop a geological formation of a Pliocene continental rock structure that characterizes the entire region (Doyuran, Toprak and Akgün 2001: 848). In addition, the topographical map of the area highlights the importance of the plateau's natural structure in the development of the ancient site. During the first two seasons, the archaeologists were able to distinguish three main areas of occupation (Fig. 2 & 3):

- a) the High Mound and its surroundings, which occupy about 4 hectares of the total extension of the site;
- b) a flat Outer Town of about 3.5 hectares, which along the southern limit is distinctively separated from the mound by a natural, steep rock formation that in certain sections appears to have been shaped in the form of large steps. The eastern border of the Outer Town is defined by the Tigris, while the northern limit is difficult to define due to a modern *wadi* running west-east;³
- c) the Lower Town, measuring about 3.0 hectares and located in the north-western section of the site, which is separated from the mound by a natural rock formation.

In terms of chronological phases, the site was probably first occupied during the Late Chalcolithic period (Fourth Millennium BC), which is characterized by a local Chaff-Faced Ware. However, the most important archaeological phase occurred between the late Third to the mid Second Millennium BC and was distinguished by a high presence of the so-called Red Brown Wash Ware (hereinafter RBWW) ceramic assemblage, recognizable throughout the entire site. After a brief period of abandonment, Hirbemerdon Tepe was reoccupied during the Iron Age, and, in a much later period, a final settlement occurred during the Islamic period (for the site's relative chronology see Laneri 2005 and in press a). (NL)

2. THE SOUNDING IN THE OUTER TOWN (AREA B)

The Outer Town was intensively investigated during the first two years of preliminary studies. A group of scientists from the Dokuz Eylül University of Izmir⁴ performed a magnetic gradiometer survey with excellent results, including the detection

³ The steep slope that separates the main mound from the Outer Town is characterized by the presence of numerous caves that were used in ancient times as funerary chambers, and that during modern times have been transformed into dwellings for people and animals. The caves are still visible along this section of the Tigris valley, and are badly eroded probably due to the river's inundations.

⁴ The geophysical survey was performed by a team of the Dokuz Eylül University of Izmir directed by Prof. M. Drahor.

of a series of sub-surface architectural features (Laneri in press b). The high density of potsherds along the southern lobe of the Outer Town was the other key factor that convinced the archaeologists to open a 10x10m sounding trench (Area B) in this area (Fig. 3). The sounding aimed to better define the results of the gradiometer survey and to establish a chronological sequence of occupation for this area from the latest occupational period down to the virgin soil. This sequence, once completed, will serve as a comparative yard stick to be used for establishing the chronology of the entire site for the duration of the project.

Through the results obtained from the excavation of the sounding, it has been possible to establish the following four phases of occupation:

Iron Age

This archaeological phase is recognizable only in the western part of the trench. Here two perpendicular walls form a small room. One of these walls has an E-W orientation and is constructed from large-sized stones (Locus 3), while the other is badly preserved and composed of small to medium-sized stones placed on top of another wall belonging to an earlier phase (Locus 10). Due to its vicinity to the plough zone, the room's floor is in very bad condition, and only the remnants of an original pebble-paved floor are still visible. The material culture associated with this floor contains residual elements from earlier periods – mostly Red Brown Wash Ware – as well as objects belonging to a later Iron Age horizon (i.e. a fragmented of Grooved Ware and a spouted vessel, Fig. 4.10-12, see Russell 1980: 86, fig. 18). As a result, it can be assumed that this small section of architecture dates back to the Iron Age period. Furthermore, a potsherd of a deep ceramic bowl (Fig. 4.13) discovered in this area is closely comparable to other vessels coming from the Iron Age levels at Ziyaret Tepe (Matney and Rainville 2005: 58.8), while a fragment of a grooved basalt grinding maul (Fig. 4.14) has clear similarities to other artifacts found in Syro-Anatolian sites dating back to the Iron Age period, such as the sites of Tell Halaf (Oppenheim and Hrouda 1962: taf. 38.c), Sultantepe (Lloyd and Gökçe 1953: pl. 1.1) and probably Boğazköy (Bohmer 1979: taf. 38.3847).⁵ The importance of this object is that in later Iron Age periods it develops into a defining element of a much broader cultural and geographic horizon throughout the Eastern Mediterranean area (Frankel 2003). Based on the discovery of a basalt bowl with a ring-base and grooved rim, Hirbemerdon Tepe can also be chronologically linked to the late and post Neo-Assyrian periods (ca. Seventh to Sixth Century BC, for comparisons see Assur, Miglus 1996: taf. 58-59; Khirbet Qasrij, Curtis 1989: fig. 22.31; Tell Ahmar, Green and Hausleiter 2001: 105, fig. 4; Tell Halaf, Oppenheim and Hrouda 1962: taf. 51.2, 3, 36, taf. 52.34; and Boğazköy, Phrygian levels, Boehmer 1972: taf. LXXXIII. 2190; Bossert 2000: taf. 93.1103, 1104).

⁵ Even though these type of mauls are generally dated to the Iron Age period, similar examples are found in Middle Assyrian contexts (cf. Tell Sabi Abyad, Trokay 2000: 1668).

Middle Bronze Age (Sub-phase A)

After exposing the latest archaeological phase of occupation, the archaeologists decided to concentrate their efforts on digging the eastern section of the trench (5x5 m). The western limit of this excavation area is bordered by the wall (Locus 3) that was previously excavated. During its earliest construction phase, this wall was associated with a highly compacted layer of collapsed debris with traces of pebble-paved floor, which probably originally functioned as a pavement to level an external space. The material culture associated with this archaeological phase belongs to a Middle Bronze Age horizon (first half of the Second Millennium BC). This assumption is based on the discovery of RBWW and other potsherds that have close comparisons to other Middle Bronze Age sites of the upper Tigris valley, as well as northern Syria and central/eastern Anatolia (Figs. 6-8). RBWW is a very distinguishable local pottery assemblage, rarely found in other similar archaeological contexts outside of the upper Tigris valley (Parker and Swartz Dodd 2003). It is also important to note that throughout the entire site of Hirbemerdon Tepe the predominant presence of RBWW is striking, especially if this data is compared to other pottery assemblages found at the site.⁶ The RBWW assemblage has a distinctive surface treatment characterized by a highly burnished, monochrome or bi-chrome decoration, ranging in color from 'red' (10R 4/6) to 'dusky red' (10R 3/2) and covering either the entire exterior vessel body or only its upper rim-shoulder section (for a preliminary report on the chemical analysis of RBWW, cf. *Paragraph 6*). In terms of clays and tempers, it is possible to differentiate between 'fine' and 'medium to coarse' wares.⁷ The first category is usually associated with bowls and beakers (Fig. 5), while the latter is related to larger shapes (mainly storage jars, Figs. 6-7). From among the fine wares, it is possible to define the following shapes and corresponding comparisons: carinated beakers, carinated bowls with a slightly everted rim, globular bowls with a groove below the rim, and bowls with a club-shape rim (cf. Lidar H. Phase 3/2, Kaschau 1999: tav. 345, 4; Kenan Tepe, Parker and Swartz Dodd 2005: 107.K; Arslantepe VA, Di Nocera 1998: tafel 1.6, 14, 22). RBWW coarse ware is instead characterized by holemouth and short necked jars with thickened or grooved rims. This repertoire of storage jars has strong similarities with contemporaneous contexts at other sites along the upper Tigris valley (i.e. Gre Dimse, Krag 1999: 268, fig. 10.14; Kenan Tepe, Parker et al. 2003: 158.j, k; Ziyaret Tepe, Matney 1998: 23.13, 15). In addition to RBWW fragments, this phase is characterized by a few potsherds of Painted Ware (pseudo-Khabur Ware), helpful in connecting this archaeological phase to a specific Middle Bronze Age horizon (ca. 1815-1550 BC, cf. Khabur Ware Period 2-3, Oguchi 1997: 196-199, fig. 1). In the case of the Painted Ware fragments found in the Sounding (Area B), the exterior surfaces are decorated with a red paint applied either as horizontal stripes or vertical wavy lines,

⁶ The results obtained during the survey performed in the Outer Town have demonstrated that the percentage of RBWW compare to all other assemblages reaches ca. 70% (Laneri in press b).

⁷ The temper used for the RBWW is usually grit and mica with an addition of a low percentage of straw in the case of large storage jars.

which consistently embellish the upper section of the vessel bodies (for horizontal stripes, Fig. 6.4, see Girnavaz MB, Erkanal 1991: R. 1; Imikuşağı MB, Sevin 1987: R.22; Hakkari MB, Özfirat 2002: fig. 4/5; for wavy lines, Fig. 6.5, see Giricano, Schicht 1, Schachner 2002c: 48, abb. 38; Arslantepe VA, Di Nocera 1998: tafel 33.4, 8).⁸

Early Bronze/Middle Bronze Age (Sub-phase B)

Underneath Sub-phase A, the archaeologists discovered an area dedicated to craft manufacturing activities. This interpretation is based on the discovery of numerous small-sized stone nuclei used for making flint tools, as well as slag related to post-firing activities. Together with this discarded material, a few finished objects were found, such as a later type of Canaanean blade and a bronze pin with a pierced rectangle and two hollowed circles at the upper end (Fig. 11). In terms of architectural features, the remains of a few badly preserved walls were brought to light. These narrow walls are constructed of small-sized stones whose function it was to separate the open space into defined areas. The overall architectural structure was founded on top of a thick platform composed of a compacted deposit of pebbles and small-sized stones. This platform was built on top of a stratigraphic layer cut into a yellowish sandy layer that is probably the result of a Tigris river flood that took place during ancient times. Due to the instability of the terrain, the platform functioned as a foundation for the superimposed architectural structure.⁹ Furthermore, the discovery of a foundation deposit inside a niche embedded in the stone platform suggests a ritual importance given to the platform's construction by the ancient inhabitants. The deposit consists of a cache of two wedged fine ware globular bowls, both with a ring-base and club-shape rim (Fig. 10).¹⁰ One of the most interesting aspects of this discovery is related to the category of pottery represented by these two bowls: the larger one belongs to the RBWW assemblage, while the smaller one is a Dark Rimmed Orange Bowl (hereinafter DROB) (Fig. 8.1-2). The DROB is a type of bowl with a distinctive dark red dusky colored band along the exterior rim and chronologically belongs to a late Third Millennium BC horizon as demonstrated by comparisons with other late Third Millennium BC (post-Akkadian) examples found at Tell Brak/Nagar (Phase N, Oates et al. 2001: fig. 401.271-275), Tell Mozan/Urkish (Buccellati and Kelly-Buccellati 2000: 171), Üçtepe (Sevin 1993: R. 16.4), Kavuğan Tepe (Közbe 2004: fig. 19), and Ziyaret Tepe (Matney 1998: 23.5). Numerous additional fragments of DROB were also found in the layers corresponding to this phase. These potsherds are usually associated with the RBWW assemblage,¹¹ but surprisingly they are never found in association with the Painted Ware (pseudo-Khabur Ware) of the later Sub-phase A. In

⁸ For general references on the Khabur Ware and its distribution refer to Frabe 1996, Hamlin 1971, Oguchi 1997, 1998, 1999, and 2003.

⁹ This possible interpretation of the platform's function was discussed with by Tim Matney and some other members of the Ziyaret Tepe team during their visit to the site.

¹⁰ Residual analysis on the dirt contained in the smaller vessel will be done in the future.

¹¹ The RBWW assemblage is not very different from the previous sub-phase (A), and some bowls can be compared to late Third Millennium (post-Akkadian, Phase N) red slipped bowls from Tell Brak (Oates 2001: fig. 418.601, 428.628).

order to better understand the chronology of this phase, the discovery of a Gray Burnished Ware carinated beaker (Fig. 8.6, Middle Bronze Age levels at Lidar H., Kaschau 1999: taf. 113, 135; late Third/early Second Millennium BC Phases F/G at Korucutepe, Griffin 1980: 4, pl. 9H; late Third Millennium BC contexts at Tell Mozan/Urkesh, Kelly-Buccellati 2002: 60) has helped the archaeologists to pair this phase with a late Third/early Second Millennium BC chronological horizon.

Chalcolithic

The earliest phase of occupation in the Outer Town belongs to a local Chalcolithic horizon (ca. first half of the Fourth Millennium BC). This phase is found below a yellowish sandy layer that, as previously mentioned, is a clear indicator of an ancient flood of the Tigris river between the end of the Chalcolithic and the beginning of the site's occupation during the late Third Millennium BC. Due to a lack of time and also the need to reach virgin soil, the archaeologists were able to dig only a portion of the sounding (2x2m). During the excavation of this occupational phase, it was not possible to identify any architectural features. However, traces of an outer surface and a shallow pit were found underneath a thick ashy layer. This archaeological phase is characterized by an overwhelming presence of large potsherds comprised primarily of handmade vessels of the cream-brown Chaff-Faced Ware category (Fig. 8.1-9). The shapes of these vessels are very simple and range from globular bowls with simple rims, to jars with short necks and straight or slightly everted rims. This material is easily comparable to similar objects found in the upper Tigris valley (i.e. Salat Tepe, Ökse et al. 2001: 632-634, fig. 8) and in other Anatolian regions further north and east of Hirbemerdon Tepe (cf. the Keban region, Whallon 1979: 20-22, figs. 10-11; the Muş plain, Rothman 1995: 283-284, fig. 4; the eastern Anatolian provinces of Ağrı, Iğdır, and Van, Marro and Özfiat 2003: 389-390, pl. I-II); but it can also be related to a broader pottery horizon that is comparable to the Amuq E Simple Ware and Amuq F Chaff-Faced Simple Ware assemblages (Braidwood and Braidwood 1960: 180-181, 232-238). Moreover, a high percentage of the vessel fragments found in the Outer Town display traces of burning on the exterior surfaces, which appear to be a clear indicator of a violent fire that probably caused the abandonment of the settlement at the end of this period. In terms of pottery typology, one of the Chaff-Faced Ware globular bowls with patterns of scraping along the rim (Fig. 4.1) can be compared to other vessels found in Chalcolithic contexts in the upper Tigris valley (Salat Tepe, Ökse et al. 2001: 618, fig. 8.2), as well as the Keban region (Lupton 1996: 14, fig. 2:1G). Another important sample is a large bowl (with a simple rim and incised dots, Fig. 4.3) that can be compared to a Middle Chalcolithic example found at Tell Brak (area CH, Oates 1985: 183, fig. 2.23). In addition, a deep bowl with straight walls (Fig. 4.3) has similarities with an analogous object found at Tilkitepe (Phase II, Korffmann 1982: abb. 5.6). The jars with a short neck and straight rim (Fig. 4.6) have more comparable examples belonging to a local Chalcolithic horizon in the upper Tigris valley (Gre Dimse, Karg 1999: 267, fig. 9.1), while the jars with short necks and slightly everted rims (Fig. 4.4-5) can be easily dated to a Chalcolithic horizon thanks to clear parallels with other examples discovered at Salat Tepe (Ökse et al. 2001: 619, fig. 9.42), Gre

Dimse (Karg 1999: 266, fig. 8.5), Hazine Tepe (Marro and Özfiat 2003: Pl.II.3), Hacinebi (Pollock-Coursey 1995: 140-141, F, B; Stein et al. 1998: 189, tab. 16.O), Yarım Höyük (Közbe and Rothman 2005: 135, fig. 8.1-3), and Korocutepe (van Loon 1978: pl. 103. 4).¹² Two complete beakers with an S profile and flat base were found in the shallow pit (Fig. 4.7 & 12).¹³ This object is a remainder of other beakers found within a late Chalcolithic horizon at Norşuntepe (Hauptmann 1982: pl. 37.8) and at Tepecik (Esin 1982: pl. 72.18) in the Keban region, as well as an example found in the Chalcolithic layers at Giricano in the upper Tigris valley (Schachner 2002c: 55, abb. 45.J).¹⁴ (AD)

3. THE HIGH MOUND (AREA A)

During the first preliminary survey, the archaeologists were able to define the edges of several walls visible along the surface of the High Mound. It is for this reason that scientists from the Dokuz Eylül University of Izmir undertook the magnetic gradiometer survey in 2004 of a small area of the High Mound (Laneri in press b). These studies successfully detected the outlines of anomalies that are related to perpendicular limestone walls or foundations of architectural features that follow a SW-NE and a SE-NW direction.

As a consequence, the archaeologists decided to investigate an area along the western limit of the magnetic gradiometer survey through the opening of a 20x20 m excavation area (Area A, Fig. 3). After a week of excavation, it became clear that a thick layer of collapsed material (mostly large-sized stones) covered most of the eastern section of this excavation area. Thus, it was decided to reduce the working trench by 10 meters on the eastern side and to enlarge it for another 10 meters towards the SW in order to follow the anomalies detected during the magnetic gradiometer survey. The results in this section of the High Mound were more fruitful, and a first layer of architectural structures was brought to light.

This archaeological phase is badly disturbed and no associated floors were available. In terms of chronology, it is very difficult to date these structures; but due to the fact that later pits cut into some of the walls, it is possible to use the material found in the pit fillings as *terminus ante quem*.¹⁵ These pits are characterized by local Iron Age material (first half of the First Millennium BC) associated with residue material from earlier phases, mostly RBWW. The Iron Age period is exemplified by the following

¹² It is also important to notice that this last type of jar includes a very wide chronological (ca. 4000-3200 BC) and geographical range that encompasses from the Hatay plain to the lake Urmia region (i.e. Hammam et-Turkman VA, Akkermans 1988: 335, pl. 86.210, 102.571, 103.62, 103.67; Tell Leilan V, Schwartz 1988: 143, fig. 6014; Amuq F, Braidwood & Braidwood 1960: 236, 239, fig. 176.6, 18, 179.22; Keban, Lupton 1996: 14, fig. 2.1: O; Urmia region, Pecorella & Salvini 1984: 287, 289, fig. 78b.86, 87, fig. 81.26, 30). Moreover, a similar vessel was found at Tell Brak and dates to the 'early centuries of 4th millennium' (Matthews 2003: 82, fig. 4.20.7).

¹³ A fragment of obsidian was found inside one of these beakers (Fig. 12).

¹⁴ It is important to notice possible similarities with a similar example found at Kurban Höyük (Algaze 1990: pl. 28D).

¹⁵ This badly preserved architectural phase is stratigraphically followed by the collapsed debris that are associated with the abandonment of building of the Second millennium BC. In this case it is possible to use this data as *terminus post quem*.

examples: jars with painted triangles, small holemouth jars slightly burnished on the exterior, a fragment of a spouted jar, and a small Plain Simple Ware jar with a knobbed decoration along the rim. All these types have clear comparisons both from this region as well as from nearby areas. For example, the spouted jar can be compared to a similar vessel found at Giricano (Schachner 2002c: abb.14.e), while the knobbed decoration is reminiscent of another fragment belonging to a local Iron Age horizon found at Tell Jhash in the upper Khabur valley in Syria, not far from the modern Syrian-Turkish border (Anastasio 1999: fig. 5.d). In addition, the painted jar found inside one of these pits (Locus 50, Fig. 13) belongs to a local Iron Age horizon, which is frequently uncovered in other archaeological contexts within the upper Tigris valley (Salat Tepe, Ökse and Alp 2002: fig. 16; Giricano, Schachner 2002c: abb. 15.a-b).¹⁶

The stratigraphically subsequent layer is characterized by a thick layer of collapsed debris (i.e. mostly mud-bricks), and by the constant presence of RBWW type potsherds. It is important to notice that a few fragments of so-called 'late' Khabur (Nuzi) Ware were found (ca. 1550-1400 BC, Fig. 6.6-7) among the pottery associated with this layer (Oguchi 1997: 196-199).

Underneath this thick layer of collapsed debris, the archaeologists brought to light a large architectural structure. The whole complex was planned following a NW-SE axis and is probably characterized by a series of terraces that served as levelers for the natural slope of the hill. Due to the presence of double-walls separating clusters of rooms, the entire complex was possibly subdivided into several agglutinated sections (Buildings A-G) (Fig. 18). The overall architectural plan of this complex was centered on a staircase (Building B, rooms 4-5-6) comprised of flat limestone slabs that functioned as a link between two different terraces on which the whole building was founded (i.e. in respect to Building A, Building B is located at a lower level, Figs. 18-20). Along the northeastern and southwestern sides of the staircase, numerous small, rectangular-shaped rooms are connected through doors and outer alleyways. In some cases the connecting doors are in alignment with each other. It is important to highlight that most of the rooms are characterized by the presence of benches constructed from mid-sized stones, positioned along the inner walls. Based on the presence of numerous fragmented mud-bricks in the previously mentioned layer of collapsed debris, it can be assumed that the complex was probably constructed using a building technique that incorporated a first layer of mid-sized stone walls with a superimposed layer of mud-bricks. Drawing on this initial archaeological data, it also can be stated that the external courtyards were stone-paved, while the other internal rooms contained compacted clay floors (comprised of mid-sized limestones to large river pebbles). In some of the rooms the doors have both internal and external niches as well as recesses (i.e. Buildings D-F).¹⁷

¹⁶ It is interesting to notice that none of these jars have been found associated with floors, but they were constantly found during survey on in refusal pits (see Schachner 2002c: abb. 7).

¹⁷ The construction technique of this complex has strong similarities with numerous southeastern Anatolian sites that belong to a comparable chronological horizon (i.e. the Middle Bronze Age building found at Gırnıvaz, Erkanal 1991: R.1).

Due to the site's natural formation and a high percentage of rainfall, the water drainage system appears to have been one of the most important architectural elements within the overall planning of the complex. One key component of this system is a drainage channel (Building B, room 4) built between the external wall of a room dedicated to working activities (Building A, room 3) and the southwestern side of the main staircase (Building B, room 6, Fig. 20). In this case room 3 was connected to the main drainage system through a hole reserved within the wall (Fig. 18). This type of drainage system has comparable examples dating to both the Middle Bronze (e.g. the site of Imamoğlu along the upper Euphrates valley, Uzunoglu 1985: R.7-8) and more recent periods, such as those used in numerous Tur 'Abdin area villages near the modern Turkey-Syria border (i.e. Midyat in the Mardin province).

In terms of the complex's chronological framework, the archaeologists were able to define two sub-phases of occupation that can easily be related to those highlighted during the excavation of Area B; that of the Middle Bronze Age, *Sub-phase A*, and the Early Bronze/Middle Bronze Age, *Sub-phase B*. This later phase of occupation (*Sub-phase A*) is distinguishable by modifications carried out on some sections of the Area A complex, including the blocking of several doors built during the earlier period and the reduction in size of some of the rooms. This latter architectural transformation was performed through the use of dividing walls that were built on top of the floors of the earlier occupational phase (i.e. rooms 10/11, Building C and 16/17, Building E, Fig. 18).

During both sub-phases the function of the rooms seems to have been predominantly dedicated to the processing and storage of food, as is demonstrated by the high number of storage and cooking jars, as well as grinding stones and mortars found *in situ* (i.e. Building A, Fig. 19). The pottery containers were probably originally located on the benches, and only the collapsing and subsequent sliding movement of the surrounding dirt transported them to a more central position. The discovery of a thick layer of burnt material associated with a curved wall supports the interpretation that one of the rooms (10/11, Building C, Fig. 18) was probably dedicated to working activities connected with the use of fire. As indicated by the discovery of stone mortars, two small rooms (14 and 15, Building D, Fig. 18) located along the outer alleyway in the NE section were used to grind and process food.

From among the material culture found inside the rooms, the most common represented form is ceramic vessels. But together with the pottery, a high number of basalt grinding stones, limestone mortars, stone pestles, and terracotta portable hearths were also discovered. Within the overall assemblage, the presence of decorated portable hearths (Figs. 9 & 16-17) can be interpreted both as part of the rooms' function and as evidence of ritual activities performed by individuals in some rooms of the Area A complex (see Paragraph 5). Furthermore, in one of these rooms (court 12, Building D) the archaeologists discovered a tripartite ceramic basin (Fig. 14) laying nearby a the portable hearths decorated with anthropomorphic motifs. This object further emphasizes the possible ritualistic function of this section of the building, and, due to a possible comparison with a similar object found in the pre-Mitanni levels at Nuzi (Starr 1939: 405, pl. 95.a), helps the

archaeologists in determining chronological links with the northern Mesopotamia regions between the late Third and the first half of the Second Millennium BC.

In terms of pottery analysis, the Area A architectural complex reflects what has been found throughout the entire site and is mainly characterized by the production of pottery vessels belonging to the so-called Red Brown Wash Ware (RBWW) assemblage (Figs. 5-7). Even though the archaeologists were able to define two occupational sub-phases, it is very difficult to differentiate chronological phases within RBWW pottery production. An earlier phase of pottery production (Sub-phase B) seems to be characterized by hemispherical bowls with flattened rims that have an incurved blunt and club-shape. In some cases a groove is visible along the exterior surface of these vessels just below the rim (Fig. 5.13). This pottery category is usually associated with Dark-Rimmed Orange Bowls (Fig. 8.3), Gray Burnished Ware (Fig. 8.5), and, in one case, a complete profile of a fine ware bowl with a beaded rim (Fig. 8.4). Although these shapes are only rarely represented at Hirbemerdon Tepe, they are comparable to other assemblages from a wide range of sites with material culture dating to the late Third Millennium BC. For example, this is demonstrated by the case of Tell Brak/Nagar in the Syrian Khabur valley, where similar shapes are associated with the site's post-Akkadian phase of occupation (Phase N: Oates et al. 2001: 161-163, figs. 401.271-275, 415.526). As already mentioned in the paragraph dedicated to the Sounding in Area B (see *Paragraph 2*), other possible comparisons for this specific assemblage are related to other sites of the Khabur valley (Tell Mozan/Urkesh), as well as settlements of the late Third Millennium BC along the upper Tigris valley (Üçtepe, Kavuşan Tepe, and Ziyaret Tepe).

The later occupational phase (Sub-phase A) of the Area A complex is characterized by an increased presence of vessels with carinated shapes – i.e. bowls and beakers – and large storage jars (Figs. 5.1-3, 6.2, & 7.4-7). Even though these RBWW forms are also present in the earlier occupational phase, the bowls of the later RBWW assemblage are definable by a clearer carination along the vessel shoulder. From among the carinated vessels, beakers with slightly everted rims appear as a constant marker for this specific phase. These also have a distinctive 3-groove decoration along the outer surface, just below the carination.

Due to the functional context of this later archaeological phase, the range of vessel shapes of the RBWW found in the architectural complex is varied, but with a predominance of large storage jars. These usually have an open or holemouth with either rounded, externally thickened rims or, in fewer cases, highly decorated ones (Fig. 7.2). Another characteristic of RBWW storage jars is represented by the presence of bands applied around the central part of the vessel body's exterior surface, or by a wavy incised decoration on the upper exterior section (Fig. 6.8-13).¹⁸ These types of pottery have strong similarities to those discovered at other upper Tigris valley Middle Bronze Age sites (Parker et al. 2003: fig. 9G-I; Parker and Swartz Dodd 2003: fig. 5T, 8L; Schachner 2002c: abb.33, 34.a, 35.b, d-e). But some of the shapes and decorative motifs also have

¹⁸ In a few cases this incised decoration is based on half-moon or full-circle motifs made with reed tools (Fig. 6.13).

comparisons with material from other neighboring regions, such as northern Syria and the upper Euphrates valley (for good comparisons see Nigro 1998).¹⁹

The discovery of a few potsherds of painted pottery (pseudo-Khabur Ware, Fig. 6.3) and of Gray Burnished Ware are particularly helpful in better defining the relative chronology of the architectural complex (cf. *ibid.* 1998: 273-274; Oguchi 1997). This can be done through a close comparison of these potsherds with similar material discovered in other Near Eastern contexts of the first half of the Second Millennium BC that are historically embedded in the Old Assyrian period (Parker and Swartz Dodd 2003: 42-64). In addition, the carinated bowls and beakers belong to a much wider cultural phenomenon that strongly distinguish Middle Bronze Age horizons of northern Mesopotamia, Syria, and Anatolia (Nigro 1998: 289). This Middle Bronze Age ceramic production is directly linked to a wider network of cultural and economic exchanges highlighted by an increase in the number of written texts throughout the entire Syro-Anatolian and Mesopotamian area. But, as can be seen at Hirbemerdon Tepe, local traditions have revised the global *ecumene*. In the case of pottery production the local traditions are more evident as differences in surface treatment as well as in the use of clay tempers.

Another example of local ceramic production at Hirbemerdon Tepe includes decorated lids (Figs. 8.10-13 & 15). The peculiarity of these objects is related to unusual types of decoration that include concentric circles, bull-shaped handles, incised zig-zag decorations, and other in-relief embellishments (for possible comparisons cf. Tepecik, Esin 1970: pl. 14; Norşuntepe, Hauptmann 1972: pl. 75.9; Çattepe survey, Velibeyoglu 2002: fig. 42.4; Lidar H. Phase 3, Kaschau 1999: taf. 90, 6; Tell Brak, Ninivite V period, Oates et al. 2001: fig. 468: 1713-1715). Some of these lids belong to the RBWW horizon, while others are associated with jars of the Cooking Ware type.

In fact, within the Area A complex, the Cooking Ware represents another category of pottery usually coupled with RBWW.²⁰ This type of pottery is characterized by jars with distinctive globular shapes, short necks, rounded rims, and triangular lugs attached to the rim area (Fig. 7.8-9). The clay is very coarse with mica and chaff temper, the color is 'weak red' (10R 4/3) and the surface is burnished. Through the presence of the Cooking Ware jars with triangular lugs, it is possible for the archaeologists to link Hirbemerdon Tepe production with late Third and early Second Millennium BC contexts in northern Syria and eastern Anatolia (Norşuntepe, Hauptmann 1972: pl. 72.2; Kurban H. IV, Algaze 1990: pl. 93.A-B, I-J; Salat Tepe, Ökse 1999: fig. 4, Ökse et al. 2001: fig. 7.1; Giricano, Schicht 01, Schachner 2002c: abb.12.2; Lidar H., Phase 1-3, Kaschau 1999: abb. 42, KT 4; Tell Brak, Ninivite V period, Oates et al. 2001: fig. 466. 1676-1677; Tell Mozan,

¹⁹ In the case of the 'wavy incised' decoration found at Hirbemerdon Tepe, the available comparisons are with a long-term decorative tradition that was used by potters in Syria and southeastern Anatolia during the end of the Third and first half of the second Millennium BC (cf. Algaze 1990: pls. 114.F,G, 121.A, E-J, Nigro 1998: figs. 3.6, 4.6, 6.9). But, it is also important to notice that the incised decoration at Hirbemerdon Tepe is based on one simple incised line, while in the other sites it is a combed incision.

²⁰ During both occupational sub-phases of Area A complex the Cooking Ware is constantly associated with storage jars of the RBWW.

Buccellati and Kelly-Buccellati 1988: fig. 21.M1 20; Tell Chuera, Kühne 1976: abb. 383-395; Tell Es-Sweyhat, Holland 2006: Pl. 275.3,6-7).

In summary, the overwhelming discovery of material culture in the Area A complex clearly supports a relative chronology for the occupation of the complex thanks to the presence of certain types of ceramic vessels that can be easily related to both indigenous and exogenous examples. More specifically, the overall occupation of the complex should correspond to a chronological phase that begins sometime during the late Third Millennium BC (i.e. post-Akkadian period) and ends during the mid Second Millennium BC (i.e. beginning of the Mitanni period). (NL & SV)

4. CHRONOLOGY OF THE AREA A ARCHITECTURAL COMPLEX (SUB-PHASE A)

During the 2005 field season, a total of three wood charcoal samples were collected from within the layers belonging to *Sub-phase A* of the Area A architectural complex. Two of them (HM05-C14-01 and HM05-C14-03) were sampled from Room 10 of Building C on top of a compacted floor from sub-phase A, and appear to be the remnants of roof beams. The third sample (HM05-C14-02) was collected from Room 15 of Building D. Due to the reduced size of the latter one, only the first two samples were processed by the Geochron laboratory in Cambridge Massachusetts using conventional (non-AMS) dating techniques, and the raw dates were calibrated using the CALIB 5.0.1 calibration program (Stuiver and Reimer 1993). The dates (Table 1) are fairly consistent with each other. Sample # HM05-C14-03 was smaller than HM05-C14-01 and was counted with an extended period of time by Geochron and had a wider age range. The dates were corrected for isotopic fractionation and the $\delta^{13}\text{C}$ values were consistent with the materials analyzed (Stuiver and Ploach 1977).

The two calibrated dates fall within the Middle Bronze Age time period and are consistent with the dates of the associated pottery from these contexts (Laneri in press). Further support in terms of absolute chronology at Hirbemerdon Tepe comes from the C14 calibrated dates (2SD) now available from Kenan Tepe that is another site with Middle Bronze Age levels located in the Upper Tigris Valley. These radiocarbon dates suggest a chronological range of this assemblage from ca. 1960 to 1630 BC (Parker and Swartz Dodd 2003: tab. 2-3).

Obviously, these dates and the comparisons of diagnostic pottery will also help in determining the exact period of occupation of the entire complex discovered in Area A. Further calibrated radiocarbon dates and archaeological data from Area A architectural complex will strongly support the work of the archaeologists in outlining the role played by Hirbemerdon Tepe in the wider historical and geographical environment of the late Third and mid Second Millennium BC. (MS)

5. PORTABLE HEARTHES FROM THE AREA A ARCHITECTURAL COMPLEX

During the excavation of the Area A architectural complex, a total of four portable hearths were uncovered. Of these low-fired ceramic objects, two are small fragments, while the remaining two are in a very good state of preservation and can be described as follows:

1. This portable hearth (Fig. 9.3 & 16) was found in the court 3 of Building A next to two stone mortars and a grinding stone. This hearth is complete, semi-circular in shape, and is embellished with incised decorations along the vertical elements framing the front-facing side. The object is comprised of two levels with a shallow, spouted upper receptacle, and a lower enclosed interior space accessible only from the front opening. The edge of the upper receptacle is embellished with three inlaid pebbles evenly spaced around the perimeter (one on each front corner and one on the center back edge). The incised decorations on each of the front-facing vertical elements are fishbone in pattern and surmounted by a series of horizontal incised lines and dots that recall stylized anthropomorphic motifs. Traces of burning are visible on the inside walls of the lower interior space, including the underside of the upper receptacle; as a result, it can be suggested that this object was definitely associated with firing activities.²¹
2. The second object (Fig. 9.1 & 17) was found on top of the stone-paved floor of court 12 in Building D. Its identification is more difficult because it has only a few parallels, was found in a secondary context, and is a fragment of a larger low-fired ceramic hearth stand or a stand to support a portable hearth. The object is rectangular in shape, vertical in orientation, and tapers down to a narrower bottom end. Each of its four faces is decorated with different incised and relieved schematic anthropomorphic motifs. Even though the top and the bottom surfaces are badly preserved, they exhibit clear traces of burning associated with firing activities. Areas of loss are visible at the four corners of the narrower bottom surface; this damage has been interpreted by the archaeologists to indicate the loss of four original supporting legs. The recessed cavity of the upper surface functioned as the area used for the hearth's firing activities.

Despite some differences, these two objects can be paired with other examples coming from Third and early Second Millennium BC contexts in the Syro-Anatolian region. They belong to a wide category of fire-related objects that scholars have labeled as movable/portable hearths, hearth stands, andirons, fenders, and/or pot-stands (Kelly-Buccellati 2002 & 2004; Smogorzewska 2004; Takaoğlu 2000). Through her study of the hearths found at Tell Mozan/Urkesh, Kelly-Buccellati (2004: 70) distinguishes at least

²¹ Another two fragments of similar objects were found within Area A architectural complex. One of these is characterized by an incised snake-like decoration along the front side, which is a typical late Third Millennium BC decorative motif (Fig. 9.2).

two categories of portable hearths; ‘fixed horseshoe-shaped hearths’ and ‘smaller portable andirons.’²²

According to stratigraphic relationships at other sites, these kind of objects are usually associated with a specific type of pottery assemblage – the so-called Red-Black Burnished Ware – belonging to the Early Transcaucasian Culture (ETC) horizon, which has been used to define nomadic and transhumant groups that continuously moved between northeastern Anatolia, the Syro-Anatolian region, and Palestine (cf. Khirbet Kerak Culture) during the Early Bronze Age (cf. Third Millennium BC, Takaoğlu 2000: 11; Smogorzewska 2004: note 2). In fact, as highlighted by several scholars, cultural exchanges between the Highlands and northern Syrian region have a long-term tradition that dates back to sometime during the Third Millennium BC and continued on throughout the first half of the Second Millennium BC (cf. Sagona 2000: 336-340; Kelly-Buccellati 2002: 60 & 2004: 71-74).²³ Therefore, the andirons/portable hearths, as well as other material culture associated with northeastern Anatolian nomadic/transhumant groups, can significantly contribute to the interpretation of the role played by these groups in shaping Ancient Near Eastern complex societies during the Third and the first half of the Second Millennium BC.

More specifically, from both a decorative and typological point of view, one of the Hirbemerdon Tepe portable hearths (1) is most similar to two horseshoe-shaped hearths discovered in one of the ‘Khabur period houses’ at Tell Mozan/Urkesh (early Second Millennium BC, *ibid.* 2004: 71-73, figs. 1-3, 6.2-3). This object’s schematic incised anthropomorphic motifs are also comparable to another portable hearth found at Cinis Höyük (Takaoğlu 2000: fig. 2a), as well as other hearths discovered at Beth Shan (Palestine), Tabara el-Akrad (Amuq region), and Shengavit (Armenia) (Takaoğlu 2000: 11-13).

Although it is more difficult to establish parallels to the second object here considered – the stand for a portable hearth (2) – it can be included among the hearth stands that, according to Smogorzewska (2004: 157-158), can either have a spool or a prism-like shape. These kinds of objects are usually characterized by perforations that probably allowed for the insertion of filaments necessary for carrying.²⁴ In terms of the decorative elements, it is quite astonishing to notice the similarities between the Hirbemerdon Tepe piece and the relieved decoration generally associated with the Black Burnished Ware of the mid Third Millennium BC levels at Pulus (Rooms 79-80, Level X,

²² In 1969, Diamant and Rutter (1969: 147) were already able to embed these fire related objects within the three following categories: 1. horned altars; 2. pot-stands or andirons; 3. loom stands, pot-supports or spit-supports.

²³ The geographical distribution of these andirons and portable hearths is very wide and includes an area encompassing eastern Anatolia, the Amuq region, the Euphrates valley, the upper Tigris valley, western and northern Syria, and Palestine (Takaoğlu 2000; Smogorzewska 2004).

²⁴ Among these objects, it is important to mention two portable hearts decorated with anthropomorphic designs that were found in mid Third Millennium contexts at Pulus (Keban region, Koşai 1976: 32), and at Aivan Kale (Sagona 1984: fig. 135: 6).

Koşay 1976: 48-49 & 83-85).²⁵ Furthermore, Pulur's decorated Black Burnished Ware is usually coupled with anthropomorphic decorated andirons; as a consequence, Pulur's field director interpreted these rooms as part of an area associated with 'domestic ritual activities' (Koşay 1976: 145-148). Following this hypothesis, archaeologists have started to interpret the andirons/portable hearths as objects with ritualistic properties but often coupled with domestic activities (Amiran 1989; Kelly-Buccellati 2004; Smogorzewska 2004; Takaoğlu 2000).²⁶

To summarize this data, the portable hearths discovered at Hirbemerdon Tepe seem to be linked to the storing and working functions of the rooms in the Area A architectural complex. This contextual data is in contrast to the contexts in which andirons/portable hearths are generally found in Syro-Anatolian sites dating to the Third and early Second Millennium BC. In addition, the discovery of these objects further highlights the important role played by Hirbemerdon Tepe in connecting the eastern Anatolian communities with those living in northern Syria between the late Third and mid Second Millennium BC. (SV)

6. CHEMICAL ANALYSES OF A SAMPLE OF RED BROWN WASH WARE

As mentioned before, the RBWW assemblage has a very characteristic surface treatment, generally visible as bi-chrome variations of red and blackish (dusky red) coloration along the exterior surfaces.

In order to understand the chemical properties of this technique, two samples of the RBWW assemblage were analyzed by the CNR – Institute of Biostructure and Bioimaging of Catania (Italy) using the following non-destructive analytical methods:²⁷

- Proton Induced X-Ray Emission Spectroscopy (PIXE),
- X-Ray Diffraction (XRD),
- X-Ray Fluorescence Spectroscopy (XRF).

For comparative purposes, the surface treatment of RBWW samples was compared to the well-understood technology of Attic Black-figure vases. Results indicate that the RBWW samples have a higher concentration of aluminum (Al), potassium (K), and iron (Fe) and a lower presence of calcium (Ca) as compared to the Attic Black-figures vases. These differences are the result of the environments in which the ceramic was fired: a reducing environment for the RBWW versus an oxidizing environment for the Attic Black-figure vases.

²⁵ A prototype of this anthropomorphic motif can be found in an impressed decoration of a potsherd belonging to Phase G at the site of Judaidah in the Amuq plain (Braidwood & Braidwood 1960: fig. 236).

²⁶ It is important to notice that these authors have considered these objects as ritualistic elements of domestic activities due to their anthropomorphic decorative pattern (Kelly Buccellati 2004: 76-79), and to later Hittites documents and ethnographic parallels with modern Anatolian transhumant groups (Smogorzewska 2004: 152).

²⁷ *PIXE-alfa* for the analysis concerning the superficial pigments, XRD to identify the mineralogical phases, XRF to analyze the trace elements of the ceramic body.

The preliminary results of this first analysis of a few samples of RBWW can be summarized as follows:

- a) the red and blackish (dusky red) pigments of all analyzed samples have the same chemical composition;
- b) these pigments show a high concentration of hematite/Iron (Fe), silicone (Si), aluminum (Al), and potassium (K).

The surface treatment of the analyzed RBWW samples therefore seems to contain a high percentage of either red iron oxide or an iron oxide-based purified clay (wash-slip). The transformation of the color from red to dusky red is due to the firing of the ceramic in a reducing environment. However, it is still unclear whether or not the bichrome effect is due to the intentional application of layers of wash followed by purposeful firing, or rather just a result of random unevenness in the level of oxygen during the firing process.

Despite the importance of these first results, it is important to emphasize that this analytical study is preliminary and only a larger sample will allow for a more conclusive interpretation of the RBWW's surface treatment. (NL & GP)

7. CONCLUSIONS

The initial 2005 season of archaeological excavation at Hirbemerdon Tepe has brought to light material culture related to an archaeological phase dating from the late Third to the mid Second Millennium BC. Although of great importance for the history of the Ancient Near East, this period is still vaguely known by Near Eastern scholars. In fact, although the increased numbers of archaeological activities along the Tigris river in southeastern Anatolia have resulted in the discovery of numerous structures associated with the material culture of this chronological period, it has not been clearly linked to other contemporaneous phases within a broader Ancient Near Eastern historical scenario. For this reason, the archaeological assemblages found at Hirbemerdon Tepe can be of fundamental value for future research in this direction. This notion is supported by the discovery of overwhelming data in the Area A architectural complex. This data corresponds to the predominance of a distinctive local ceramic production, the so-called Red Brown Wash Ware, consistently associated with materials similar to those available from contemporaneous periods in northern Mesopotamia and Syria, such as a Fine Ware bowl with a beaded rim, Gray Burnished Ware, and Painted Ware (Pseudo-Khabur Ware). Moreover, several elements of this local production recall examples available from Third Millennium BC contexts in central and northeastern Anatolia, such as the presence of decorated portable hearths (Kelly-Buccellati 2004 and 2005) as well as the construction techniques evident in the Area A architectural complex.

With this geographical and chronological framework in mind, the site of Hirbemerdon Tepe clearly represents an example of an ancient local settlement that played a fundamental role in connecting the northern Mesopotamian communities to those living in central and northern Anatolia, primarily during late Third and first half of the Second Millennium BC. It is important to keep in mind that this archaeological phase

corresponds to the earliest known evidence of the presence of Hurrian groups in the Near East in the form of written documents, in which the location of Hurrian speaking people is described as the 'ancient land of Subartu' (Wilhelm 1989: 7-15). This 'ancient land' refers to a vast area that today encompasses southeastern Turkey and parts of northern Syria and northwestern Iran (Salvini 2000; Steinkeller 1997). Furthermore, the early Second Millennium BC is also characterized by the establishment of a long-distance commercial network that was organized by Assyrian merchants in order to link Mesopotamian regions with central Anatolian centers and sources for raw materials (Eidem 2000; Oguchi 1999).²⁸ It is for these reasons that the region of the upper Tigris valley appears to us as an interesting cultural and geographical niche that was pivotal in linking communities of the northern and southern regions of the Ancient Near East between the late Third and the mid Second Millennium BC.

In conclusion, the archaeological investigations at the site of Hirbemerdon Tepe will probably support the analysis and interpretation of such an important period, as well as help archaeologists and historians in investigating the apparent cultural interactions that took place between the Mesopotamian and Anatolian regions during the above-mentioned period. An additional objective of this overview is to bring to a wider audience the material culture of this relatively little known but highly significant region of the Ancient Near East.

²⁸ As correctly pointed out by Burney (1997: 178), in the Third Millennium BC 'Hurrians may well have penetrated widely through Syria and Mesopotamia by virtue of their skills as coppersmiths and very probably also as traders'. Within this perspective, it is also important to remember that the upper Tigris valley is logical connector between the Ergani-Maden copper mines (north of Diyarbakır) and northern Syria (Kelly-Bucellati 1990).

Bibliography

- Akkermans, P.M.M.G., 1988 – The Period V Pottery, in M.N. van Loon (ed.), *Hamam et-Turkman I* (Istanbul-Leiden).
- Algaze, G., 1990 – Town and Country in Southeastern Anatolia, II: The Stratigraphic Sequence at Kurban Hoyuk, OIP 110 (Chicago).
- Amiran, R., 1989 – A Note on two Items of the Khirbet Kerak Ware Culture, in K. Emre, B. Hrouda, M. Mellink and N. Özgüç (eds.), *Anatolia and the Ancient Near East. Studies in Honor of Tahsin Özgüç* (Ankara), 9-10.
- Anastasio, S., 1999 – ‘Prospection archéologique du Haut-Khabur occidentale (Syrie du N.E.). Preliminary Information on the Pottery of the Iron Age’, in A. Hausleiter and A. Reiche (eds.), *Iron Age Pottery in Northern Mesopotamia, Northern Syria and South-Eastern Anatolia* (Münster), 173-91.
- Boehmer, R.M., 1972 – Die Kleinfunde von Boğazköy aus den Grabungskampagnen 1931-1939 und 1952-1969, Boğazköy-Hattuša VII, WVDOG 87 (Berlin).
- Bossert, E.M., 2000 – Die Keramik phrygischer Zeit von Boğazköy: Funde aus den Grabungskampagnen 1906, 1907, 1911, 1912, 1931-39 und 1952-60, Boğazköy-Hattuša XVIII (Mainz am Rhein).
- Braidwood, R.J. and Braidwood, L.S., 1960 – Excavations in the Plain of Antioch, I: The Earlier Assemblages Phases A-J, OIP 61 (Chicago).
- Buccellati, G., and Kelly-Buccellati, M., 1988 – Mozan I. The Soundings of the First Two Seasons, *Bibliotheca Mesopotamica* 20 (Malibu).
- Buccellati, G., and Kelly-Buccellati, M., 2000 – ‘The Royal Palace of Urkesh. Report on the 12th Season at Tell Mozan/Urkeh: Excavations in Area AA, June-October 1999’, *Mitteilungen der Deutschen Orient-Gesellschaft zu Berlin* 132 (Tübingen), 133-184.
- Burney, C., 1997 – ‘Hurrians and Indo-Europeans in their Historical and Archaeological Context’, *Al-Rafidan* 18 (Tokyo), 175-194.
- Curtis, J., 1989 – Excavations at Qasrij Cliff and Khirbet Qasrij, British Museum Western Asiatic Excavations I (London).
- Diamant, S., and Rutter, J., 1969 – ‘Horned Objects in Anatolia and the Near East and Possible Connections with the Minoan “Horns of Consecration”’, *Anatolian Studies* 19 (London), 147-177.
- Di Nocera, G., 1998 – Die Siedlung der Mittelbronzezeit von Arslantepe: eine Zentralsiedlung von Beginn des zweiten Jahrtausends v.Chr. in der Ebene von Malatya (Türkei) (Rome).
- Doyuran, V., Toprak, V., and Akgün, H., 2001 – ‘Geotechnical Problems of Hasankeyf Settlement Area’, in N. Tuna, J. Öztürk and J. Velibeyoğlu (eds.), *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 1999* (Ankara), 833-54.
- Eidem, J., 2000 – ‘Northern Jezira in the 18th Century. Aspects of Geo-Political Patterns’, *Subartu* VII (Turnhout), 255-264.
- Erkanal, H., 1991 – ‘1989 Gırnava kazıları’, *Kazı Sonuçları Toplantısı* XII.1 (Ankara), 261-273.
- Esin, U., 1970 – ‘Tepecik Excavations: 1968 Campaign, Preliminary Report’, in METU, *Keban Project 1968 Summer Work* no. 1 (Ankara), 159-172.
- Esin, U., 1982 – ‘Tepecik Excavations’, in METU, *Keban Project* 1982 no. 7 (Ankara), 96-118.
- Frabe, J.E., 1996 – The Tell Leilan Period I Habur Ware Assemblage (unpublished Ph.D. dissertation).
- Frankel, R., 2003 – ‘The Olynthus Mill, Its Origin and Diffusion: Typology and Distribution’, *American Journal of Archaeology* 107.1 (Boston), 1-21.
- Griffin, E., 1980 – ‘The Middle and Late Bronze Age Pottery’, in M. van Loon (ed.) *Korucutepe III* (Istanbul), 3-110.

- Hamlin, C., 1971 – The Habur Ware Ceramic Assemblage of Northern Mesopotamia: An Analysis of Its Distribution (unpublished Ph.D. dissertation).
- Hamlin, C., 1974 – 'The Early Second Millennium Ceramic Assemblage of Dinkha Tepe', *Iran* XII (London), 125-154.
- Hauptmann, H., 1972 – 'Die Grabungen auf dem Norşuntepe, 1970', in *METU, Keban Project 1970 Activities* no. 3 (Ankara), 103-132.
- Hauptmann, H., 1982 – 'Die Grabungen auf dem Norşuntepe, 1974', in *METU, Keban Project 1982* no. 7 (Ankara), 41-70.
- Holland, T.A., 2006 – Archaeology of the Bronze Age, Hellenistic, and Roman Remains from an Ancient Town on the Euphrates River. Excavations at Tell Es-Sweyhat, Syria. Volume 2, OIP 125 (Chicago).
- Hoppenheim, M.F. von, and Hrouda, B., 1962 – Tell Halaf IV. Die Kleinfunde aus historischer Zeit (Berlin).
- Karg, N., 1999 – 'Gre Dimse 1998: Preliminary Report', in N. Tuna and J. Öztürk (eds.), *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 1998* (Ankara), 237-97.
- Kaschau, G., 1999 – Lidar Höyük. Die Keramik der Mittleren Bronzezeit (2 volumes), *Archaeologica Euphratica* 3 (Mainz).
- Kelly-Buccellati, M., 1990 – 'Trade in Metals in the Third Millennium: Northeastern Syria and Eastern Anatolia', in M. van Loon, P. Matthiae and H. Weiss (eds.), *Resurrecting the Past: a joint tribute to Adnan Bounni* (Istanbul), 117-131.
- Kelly-Buccellati, M., 2002 – 'L'arte di Urkesh', in S. Bonetti (ed.), *Gli Opifici di Urkesh, Urkesh/Mozan Studies* 4 (Malibu), 47-62.
- Kelly-Buccellati, M., 2004 – 'Andirons at Urkesh: New Evidence for the Hurrian Identity of the Early Trans-Caucasian Culture', in A. Sagona (ed.), *A View from the Highlands: Archaeological Studies in Honour of Charles Burney*, ANES suppl. 12 (Harentl), 67-89.
- Kelly-Buccellati, M., 2005 – 'Urkesh and the North. Recent Discoveries', in D.I. Owen and G. Wilhelm (eds.), *General Studies and Excavations at Nuzi 11/1, Studies of the Civilization and Culture of Nuzi and the Hurrians* 15 (Bethesda), 29-40.
- Korfmann, M., 1982 – Tilkitepe. Die ersten Ansätze prähistorischer Forschung in der Östlichen Türkei, *Istanbuler Mitteilungen-Beiheft* 26 (Tübingen).
- Koşai, H.Z., 1976 – Keban Project. Pulur Excavations 1968-1970. *METU, Keban Project Publications*, Series III.1 (Ankara).
- Közbe, G., et al. 2004 – '2001 Excavations at Kavuşan Höyük', in N. Tuna, J. Greenhalgh and J. Velibeyoğlu (eds.), *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 2001* (Ankara), 463-504.
- Közbe, G., and Rothmann, S., 2005 – 'Chronology and Function at Yarım Höyük, Part II', *Anatolica* XXXI (Leiden), 111-144.
- Kühne, H., 1976 – Die Keramik vom Tell Chuera und ihre Beziehungen zu Funden aus Syrien-Palästina, der Türkei und dem Iraq, *Vorderasiatische Forschungen der Max Freiherr von-Oppenheim-Stiftung* 1 (Berlin).
- Laneri, N., 2005 – 'Hirbemerdon Tepe 2003: A Preliminary Report', *Kazı Sonuçları Toplantısı* XXVI (Ankara), 63-72.
- Laneri, N., in press a – A Preliminary Report of the 2003 Survey and Excavation at Hirbemerdon Tepe (Southeastern Anatolia, Turkey), *Annali dell'Istituto Orientale di Napoli – Dip. Studi Asiatici* 64 (Naples).
- Laneri, N., in press b – The Second Season of Archaeological Work at Hirbemerdon Tepe (Turkey): A Preliminary Report, *East and West* 55 (Rome).

- Lloyd, S., and Gökçe, N., 1953 – ‘Sultantepe. Anglo-Turkish Joint Expedition, 1952’, *Anatolian Studies* 3, (London) 27-51.
- Lupton, A., 1996 – Stability and Change. Socio-political development in North Mesopotamia and South-East Anatolia 4000-2700 BC, BAR International Series 627 (Cambridge).
- Marro, C., and A. Özfirat 2003 – ‘Pre-Classical Survey in Eastern Turkey. First Preliminary Report’, *Anatolia Antiqua* XI (Paris), 385-423.
- Matney, T., 1998 – ‘The First Season of Work at Ziyaret Tepe in the Diyarbakır Province: Preliminary Report’, *Anatolica* XXIV (Leiden), 7-30.
- Matney, T., et al. 2002 – ‘Archaeological Excavations at Ziyaret Tepe, 2000 and 2001’, *Anatolica* XXVIII (Leiden), 46-89.
- Matney, T., et al. 2003 – ‘Archaeological Investigations at Ziyaret Tepe, 2002’, *Anatolica* XXIX (Leiden), 175-221.
- Matney, T., and Rainville, L., (eds.) 2005 – ‘Archaeological Investigations at Ziyaret Tepe, 2003-2004’, *Anatolica* XXXI (Leiden), 19-68.
- Matthews, R., (ed.) 2003 – Excavations at Tell Brak, 4: Exploring an Upper Mesopotamian Regional Centre, 1994-1996, McDonald Institute Monographs, British School of Archaeology in Iraq (Cambridge-London).
- Merluzzi, E., 2000 – ‘Basalt Tools at Ebla: An Example of “Ground Stone” Industry in a Central Site of the Bronze Age Period’, in P. Matthiae et al. (eds.), Proceedings of the First International Congress on the Archaeology of the Near East, Rome, May 18th-23rd 1998. Vol. II (Rome), 1061-1078.
- Miglus, P., 1996 – Das Wohngebiet von Assur. Stratigraphie und Architecture, Ausgrabungen der Deutschen Orient-Gesellschaft in Assur – D, Allgemeines (Berlin).
- Nigro, L., 1998 – ‘Ebla and the Ceramic Provinces of Northern Syria in the Middle Bronze Age: Relationship and Interconnections with the Pottery Horizons of Upper Mesopotamia’, *Subartu* IV.1 (Turnhout), 271-304.
- Oates, J., 1985 – ‘Tell Brak: Uruk pottery from 1984 season’, *Iraq* XLVII (London), 175-186.
- Oates, D., Oates, J., and McDonald, H., 2001 – Excavations at Tell Brak, II: Nagar in the Third Millennium, McDonald Institute Monographs, British School of Archaeology in Iraq (Cambridge-London).
- Oguchi, H., 1997 – ‘A Reassessment of the Distribution of Khabur Ware: An Approach from an Aspect of its Main Phase’, *Al Rafidan* XVIII (Tokyo), 195-224.
- Oguchi, H., 1998 – ‘Notes on Khabur Ware from Outside Its Main Distribution Zone’, *Al Rafidan* XIX (Tokyo), 119-133.
- Oguchi, H., 1999 – ‘Trade Routes in the Old Assyrian Period’, *Al Rafidan* XX (Tokyo), 85-106.
- Oguchi, H., 2003 – ‘20th Century BC North Mesopotamia: An Archaeological Dilemma’, *Al Rafidan* XXIV (Tokyo), 83-100.
- Ökse, T., 1999 – ‘Salat Tepe: Research in 1998’, in N. Tuna, and J. Öztürk (eds.), Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 1998 (Ankara), 333-351.
- Ökse, T., et al. 2001 – ‘Salat Tepe, 1999 Survey’, in N. Tuna, J. Öztürk, and J. Velibeyoğlu (eds.), Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 1999 (Ankara), 620-670.
- Özfirat, A., 2002 – ‘Khabur Ware from Hakkari’, *Ancient Near Eastern Studies* 22 (Melbourne), 141-151.
- Parker, B., and Creekmore, A., 2002 – ‘The Upper Tigris Archaeological Research Project (UTARP): A Final Report from the 1999 Field Season’, *Anatolian Studies* 52 (London), 19-74.
- Parker, B., and Swartz Dodd, L., 2003 – ‘The Early Second Millennium Ceramic Assemblage from Kenan Tepe, southeastern Turkey. A Preliminary Assessment’, *Anatolian Studies* 53 (London), 33-70.

- Parker, B., et al. 2003 – ‘The Upper Tigris Archaeological Research Project (UTARP): A Preliminary Report from the 2001 Field Season’, *Anatolica* XXIX (Leiden), 102-174.
- Parker, B.J., and Swartz Dodd, L., (eds.) 2005 – ‘The Upper Tigris Archaeological Research Project. A Preliminary Report from the 2002 Field Season’, *Anatolica* XXXI (Leiden), 69-110.
- Pecorella, P.E., and Salvini, M., 1984 – Tra lo Zagros e l’Urmia. Ricerche storiche e archeologiche nell’Azerbaijani iraniano (Rome).
- Pollock, S., and Coursey, C., 1995 – ‘Ceramics from Hacinebi Tepe: chronology and connections’, *Anatolica* XXI (Leiden), 101-141.
- Rothman, M., 1995 – ‘The Pottery of the Muş Plain and the Evolving Place of a High Border Land’, *Araştırma Sonuçları Toplantısı* XII (Ankara), 281-304.
- Russell, H., 1980 – Pre-Classical Pottery of Eastern Anatolia, BAR International Series 214 (Oxford).
- Sagona, A.G., 1984 – The Caucasian Region in the Early Bronze Age, BAR International Series 214 (Oxford).
- Sagona, A.G., 2000 – Sos Höyük and the Erzurum Region in Late Prehistory: A Provisional Chronology for Northeast Anatolia, in C. Marro and H. Hauptmann (eds.), *Chronologies des Pays du Caucase et de l’Euphrate aux IVE-IIIe Millénaires*, Varia Anatolica XI (Paris-Istanbul), 329-373.
- Salvini, M., 2000 – ‘Les Hourrites dans la Djéziré syrienne’, *Subartu* VII (Turnhout), 287-198.
- Schachner, A., 2002a – ‘From the Bronze to the Iron Age: Identifying Changes in the Upper Tigris Region. The Case of Giricano’, in B. Fischer, H. Genz, É. Jean, and K. Köroğlu (eds.), *Identifying Changes: The Transition from Bronze to Iron Ages in Anatolia and its Neighboring Regions* (Istanbul), 151-167.
- Schachner, A., 2002b – ‘2000 Yılı Giricano Kazıları On Raporu’, in N. Tuna, J. Öztürk, and J. Velibeyoğlu (eds.), *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 2000* (Ankara), 549-612.
- Schachner, A., 2002c – ‘Ausgrabungen in Giricano (2000-2001). Neue Forschungen an der Nordgrenze des Mesopotamischen Kulturraums. Mit Beiträgen von Peter V. Bartl und Josef Heigermoser’, *Istanbuler Mitteilungen* 52 (Tübingen), 9-57.
- Schachner, A., 2004 – ‘2001 Yılı Giricano Kazıları’, in N. Tuna, J. Greenhalgh, and J. Velibeyoğlu (eds.), *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 2001* (Ankara), 505-546.
- Schwartz, G., 1988 – A Ceramic Chronology from Tell Leilan: Operation 1, Yale Tell Leilan Research I (New Haven).
- Sevin, V., 1987 – ‘İmikuşağı kazıları’, *Kazı Sonuçları Toplantısı* IX.1 (Ankara), 299-333.
- Sevin, V., 1993 – ‘1992 yılı Diyarbakır/Üçtepe höyüğü kazıları’, *Kazı Sonuçları Toplantısı* XV.1 (Ankara), 399-416.
- Smogorzewska, A., 2004 – ‘Andirons and Their Role in Early Transcaucasian Culture’, *Anatolica* XXX (Leiden), 151-177.
- Starr, R.F.S., 1939 – Nuzi. Report on the excavations at Yorgan Tapa near Kirkuk, Iraq conducted by Harvard University in conjunction with the American Schools of Oriental Research and the University Museum of Philadelphia, 1927-1931 (Cambridge).
- Stein, G.J., et al. 1998 – ‘Southeast Anatolia before the Uruk Expansion: Preliminary Report on the 1997 Excavations at Hacinebi’, *Anatolica* XXIV (Leiden), 143-193.
- Steinkeller, P., 1997 – ‘The Historical Background of Urkesh and the Hurrian Beginnings in Northern Mesopotamia’, in G. Buccellati and M. Kelly-Buccellati (eds.) *Urkesh - Mozan Studies 3: Urkesh and the Hurrians: Studies in Honor of Lloyd Cotsen* (Malibu), 75-98.
- Stuiver, M., and Ploach, H.A. 1977 – ‘Discussion: Reporting of 14C Data’, *Radiocarbon* 19 (Tucson), 355-363.

- Stuiver, M., and Reimer, P. 1993 – ‘University of Washington Quaternary Isotope Lab Radiocarbon Calibration Program Rev. 3.0.3A’, *Radiocarbon* 35 (Tucson), 215-30.
- Summers, G.D., (ed.) 1993 – Tille Höyük 4, the Late Bronze Age and the Iron Age Transition, The British Institute of Archaeology at Ankara, Monograph n. 15 (Ankara).
- Takaoğlu, T., 2000 – ‘Hearth Structures in the Religious Pattern of Early Bronze Age Northeast Anatolia’, *Anatolian Studies* 50 (London), 11-16.
- Trokay, M., 2000 – ‘Le matériel de broyage en basalte du Tell Ahmar (Area C, fouilles 1989-1996)’, in P. Matthiae, A. Enea, L. Peyronel, F. Pinnock, Proceedings of the First International Congress on the Archaeology of the Near East, Rome, May 18th-23rd 1998, vol. II (Roma), 1665-1677.
- Uzunuşlu, E., 1985 – ‘İmamoğlu kazıları’, *Kazı Sonuçları Toplantısı* VII (Ankara), 162-180.
- Loon, M.N. van, (ed.) 1978 – Korucutepe. Final Reports on the Excavations of the University of Chicago, California (Los Angeles) and Amsterdam in the Keban Reservoir, Eastern Anatolia, 1968-1970. Vol II (Amsterdam-New York).
- Velibeyoğlu, J., Schachner, A., and Schachner, S., 2002 – ‘Botan Vadısı ve Çattepe (Tilli) Yusey Araştırmalarının İlk Sonuçları’, in N. Tuna, J. Öztürk, and J. Velibeyoğlu (eds.), *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs Activities in 2000* (Ankara), 783-857.
- Whallon, R., 1979 – An Archaeological Survey of the Keban Reservoir Area of East-Central Turkey (Ann Arbor).
- Wilhelm, G., 1989 – The Hurrians (Warminster).

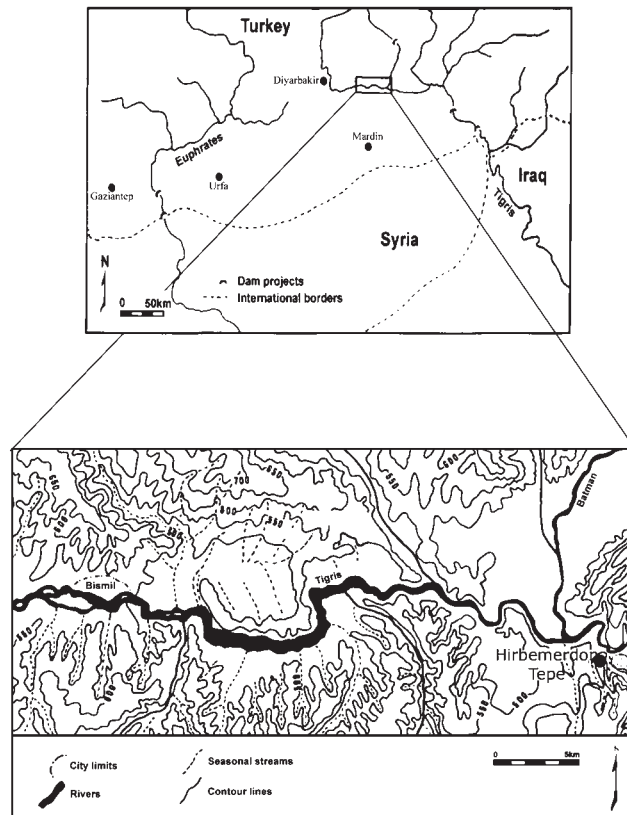


Fig. 1. Geographical position of Hirbemerdon Tepe within the upper Tigris valley (adapted from Parker & Creekmore 2002: figs 1-2).



Fig. 2. The site of Hirbemerdon Tepe viewed from the north.

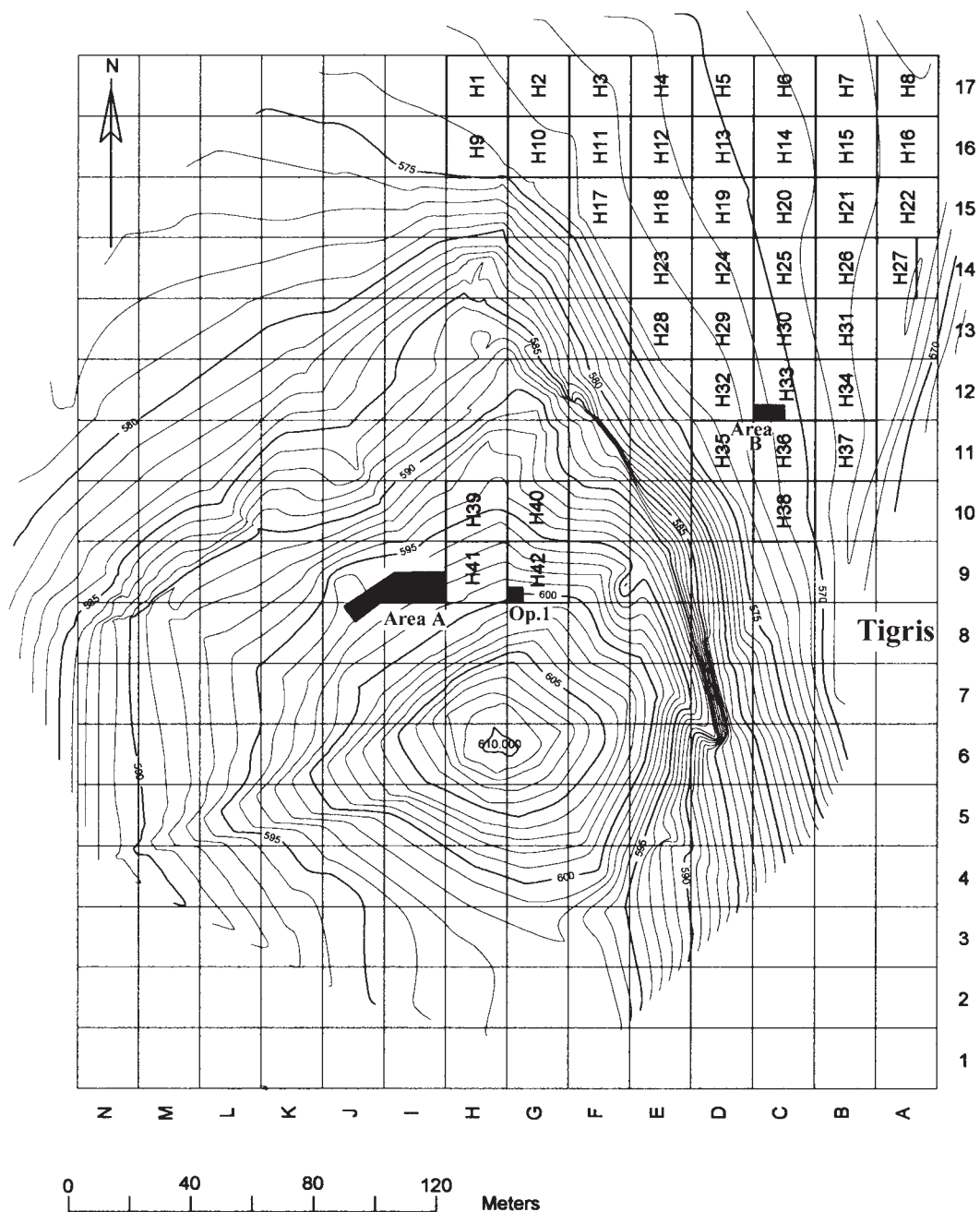


Fig. 3. Topographical map of Hirbemerdon Tepe showing the excavated areas (A, B, and Op. 1 a sounding dug in 2003), and the sections (H1-40) in which the magnetic gradiometer survey was performed in 2004.

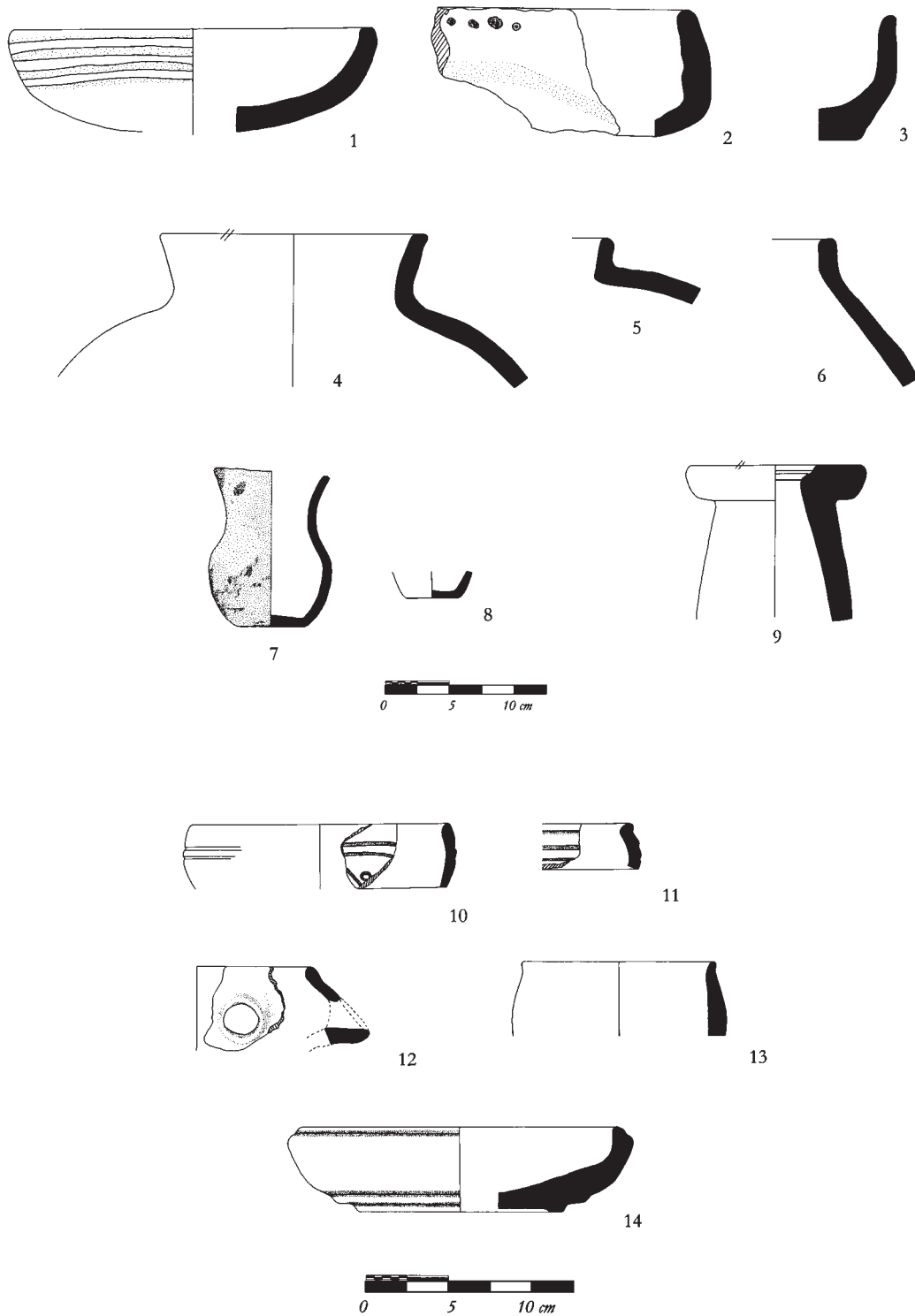


Fig. 4. Drawing of selected potsherds from Area B of the Chalcolithic (1-9) and the Iron Age (10-14) periods.

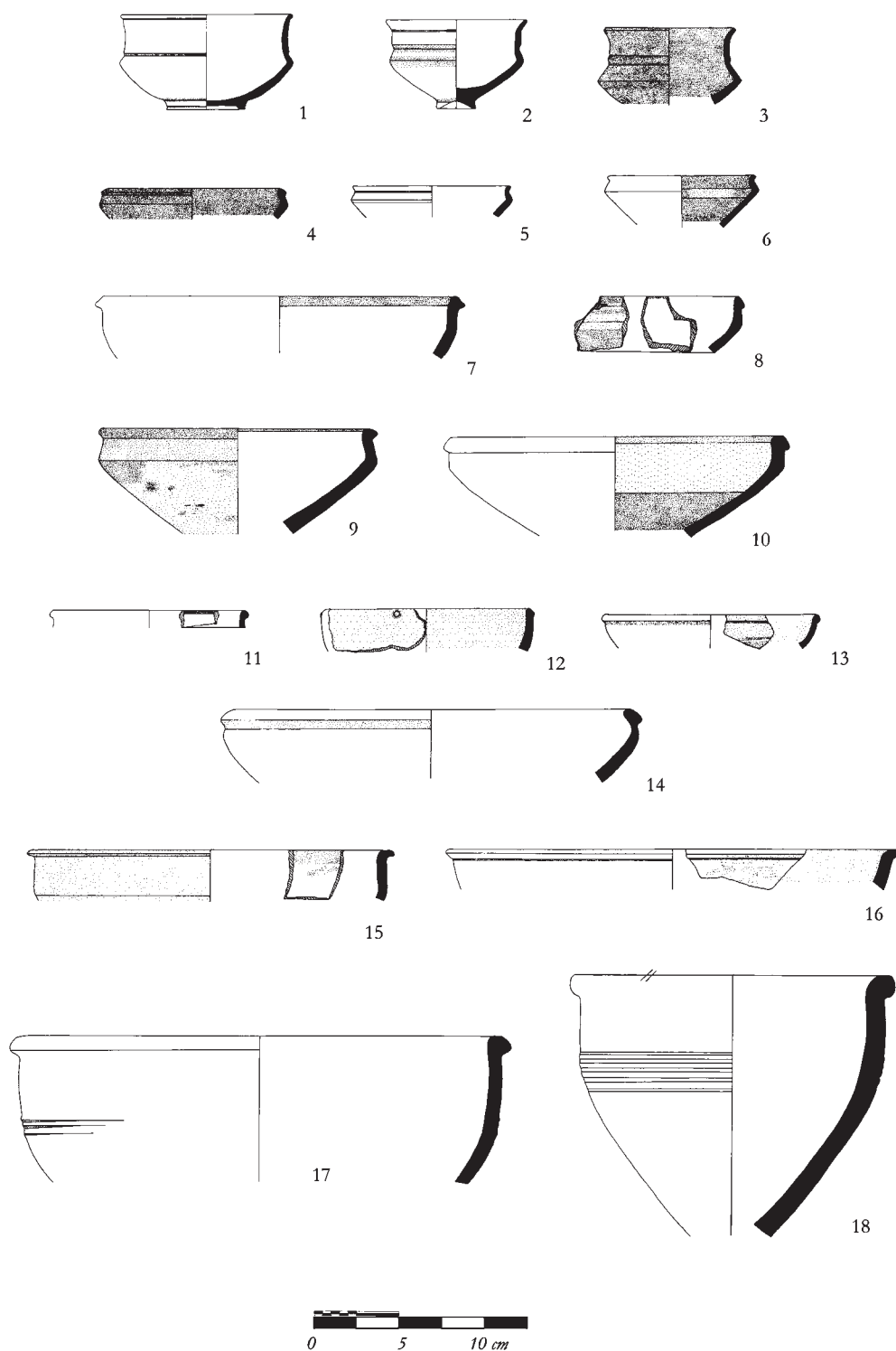


Fig. 5. Drawing of selected potsherds of the Red Brown Wash Ware (RBWW) assemblage from both Area A and B.

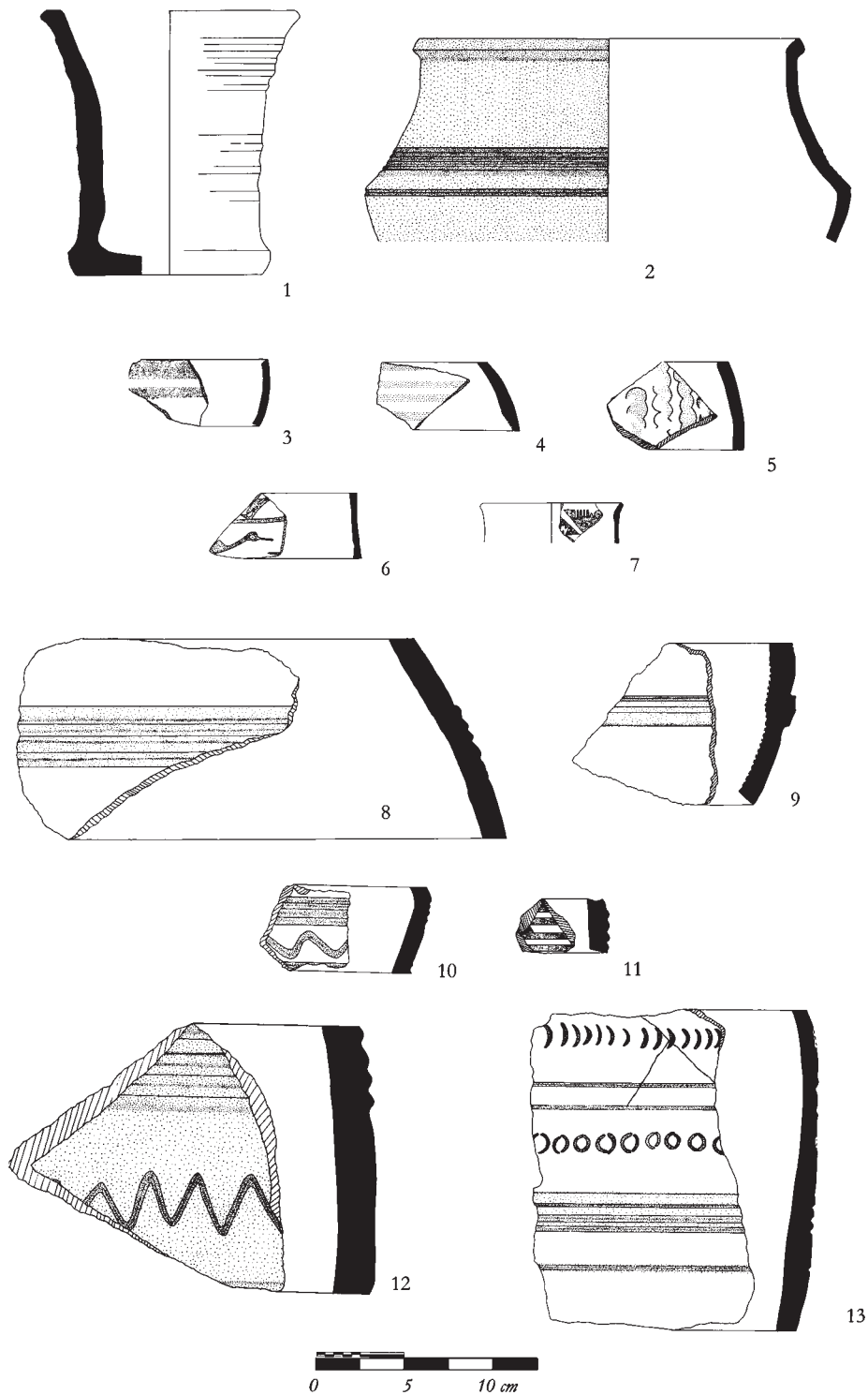


Fig. 6. Drawing of selected potsherds of the Middle Bronze Age (first half of the Second Millennium BC) from both Area A and B.

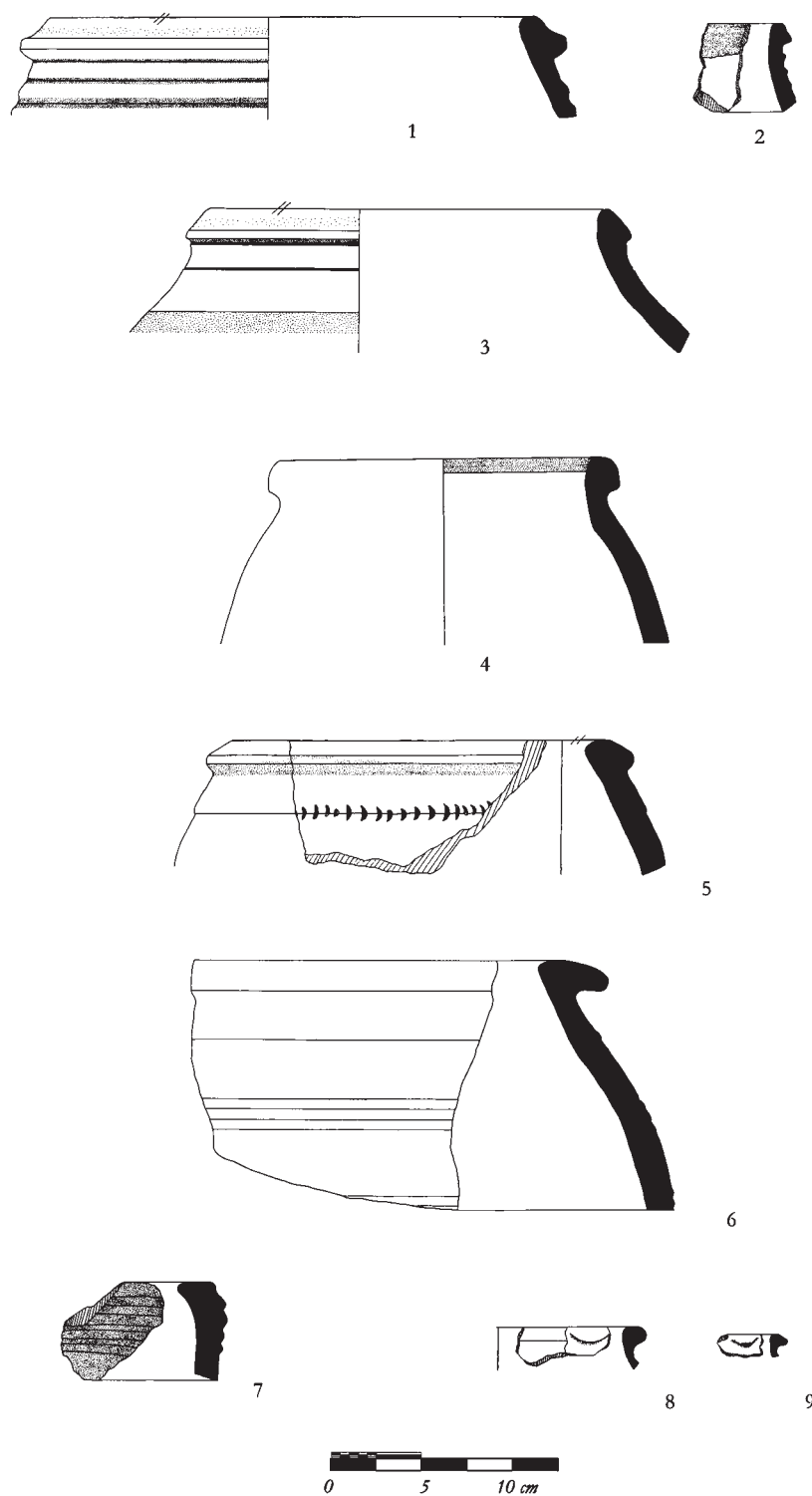


Fig. 7. Drawing of selected potsherds of the storage jars and Cooking Ware (8-9) categories from both Area A and B.

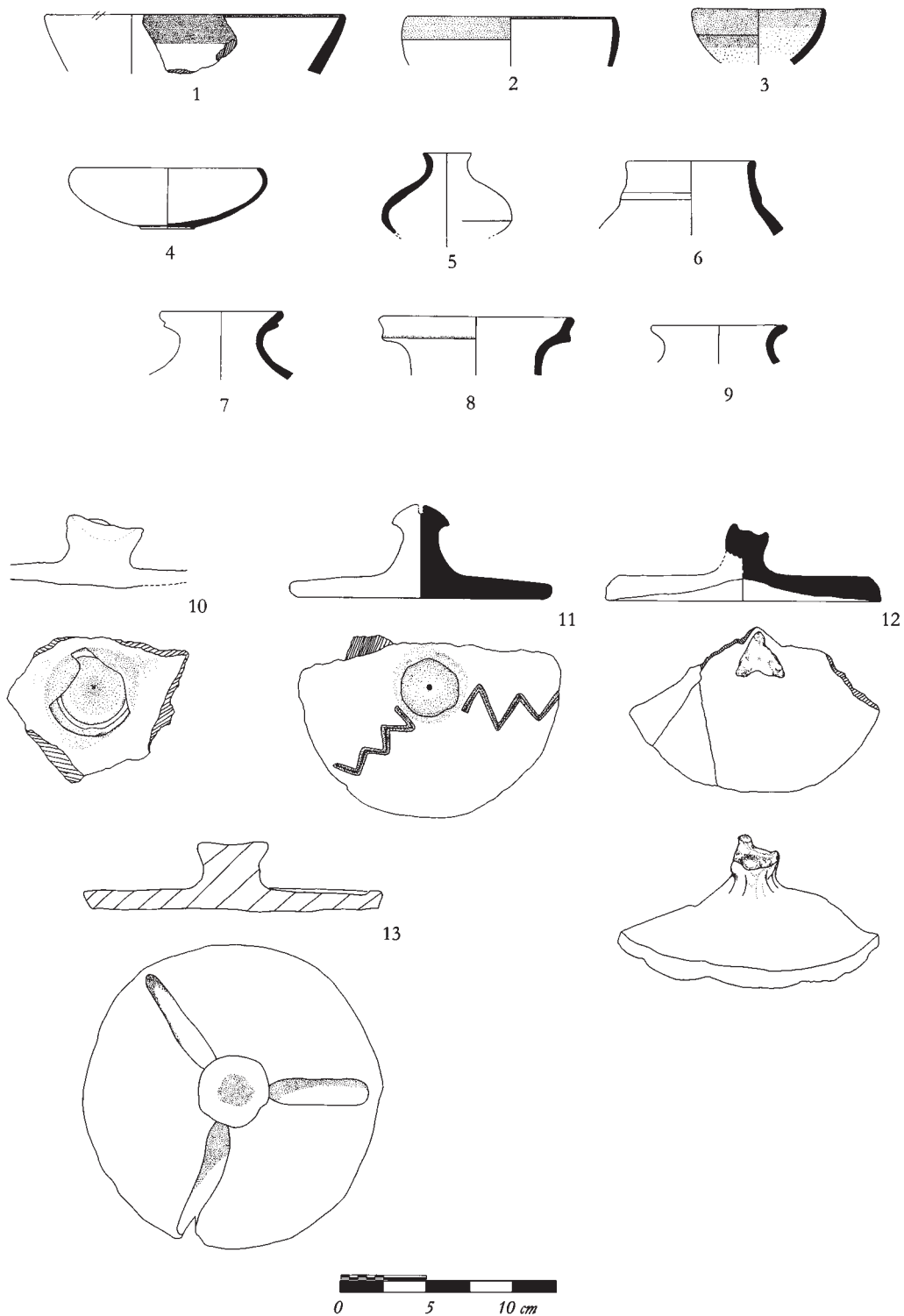


Fig. 8. Drawing of selected potsherds of the late Third Millennium BC (1-9) and of decorated lids (10-13) from both Area A and B.

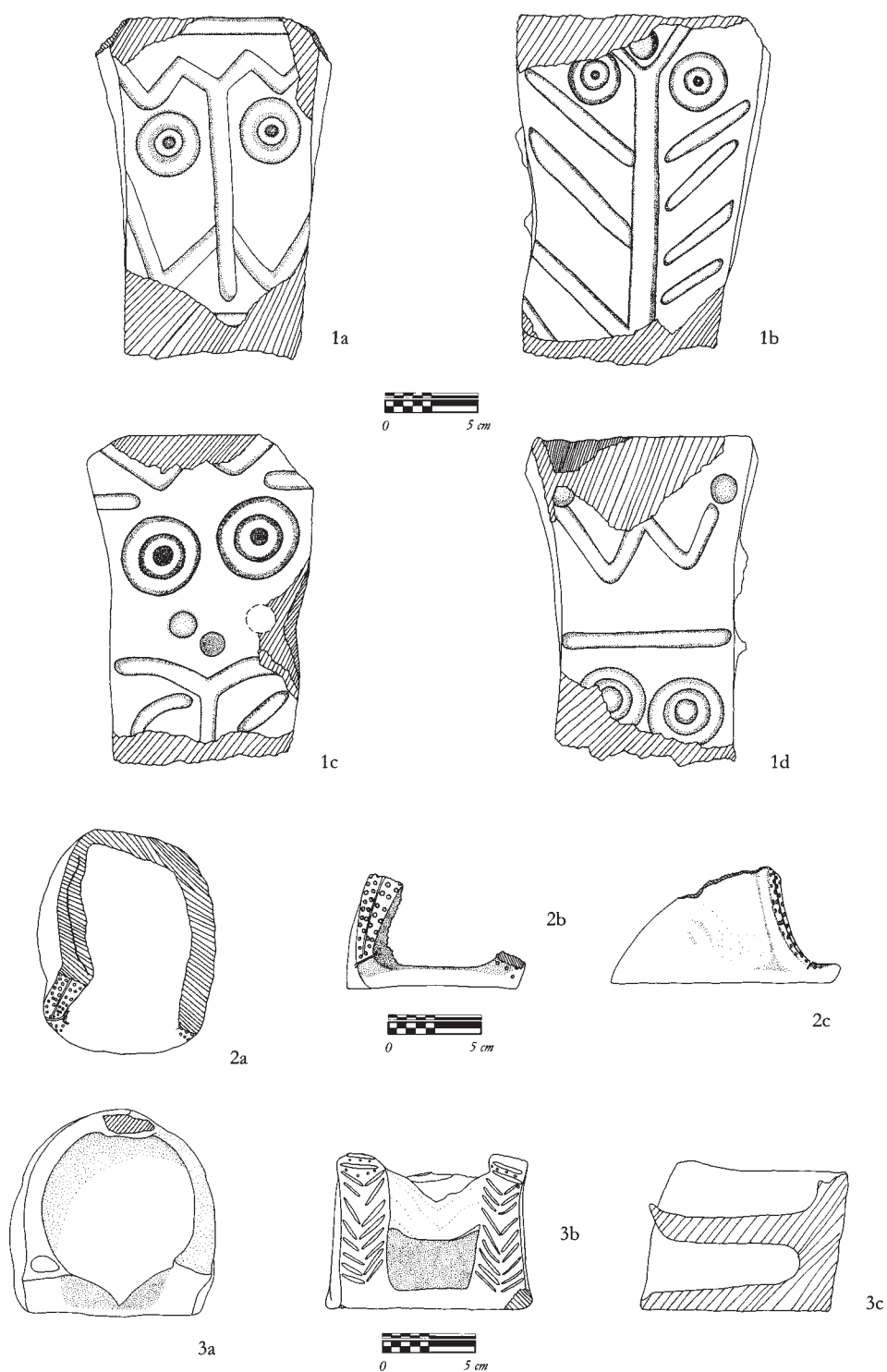


Figure 9. Drawing of portable hearths from the Area A architectural complex.



Fig. 10. One bowl of the RBWW assemblage (top) and of the Dark-Rimmed Orange Bowl type (bottom) found in the niche of a stone platform in Sub-phase B, Area B.

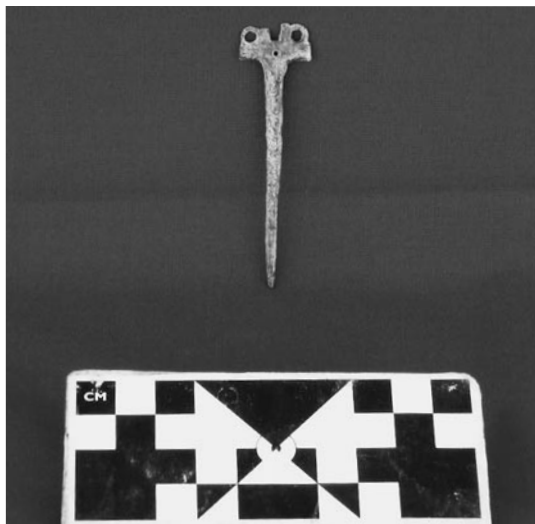


Fig. 11. A bronze pin from Sub-phase B in Area B.



Fig. 12. A beaker (Chaff-Faced Ware) and fragment of obsidian, from inside the beaker, discovered in a pit of the Chalcolithic period in Area B.



Fig. 13. A painted jar of the Iron Age period found inside a pit in Area A.



Fig. 14. A tripartite ceramic basin found in court 12 of Building D within the Area A architectural complex.



Fig. 15. Decorated lids discovered in the storage rooms of the Area A architectural complex.



Fig. 16. A portable hearth brought to light in court 3 of Building A of the Area A architectural complex.



Fig. 17. A portable hearth with anthropomorphic decoration found as a secondary deposit in court 12 of Building D of the Area A architectural complex.

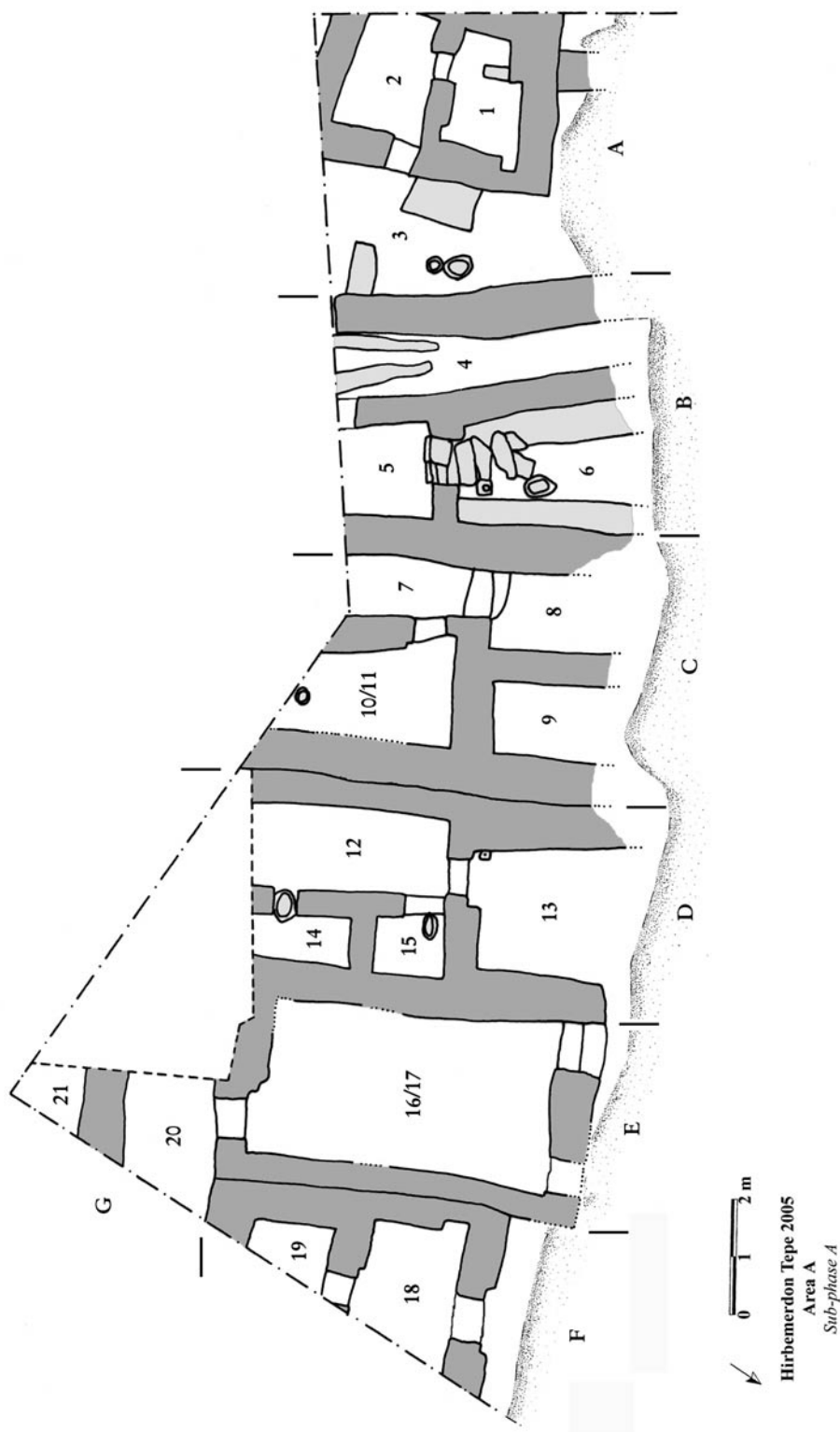


Fig. 18. Detailed plan of Area A architectural complex (Sub-phase A).



Fig. 19. Building A (Sub-phase A) of Area A architectural complex viewed from the eastern side.



Fig. 20. The main staircase of Area A architectural complex (Building B) viewed from the north.

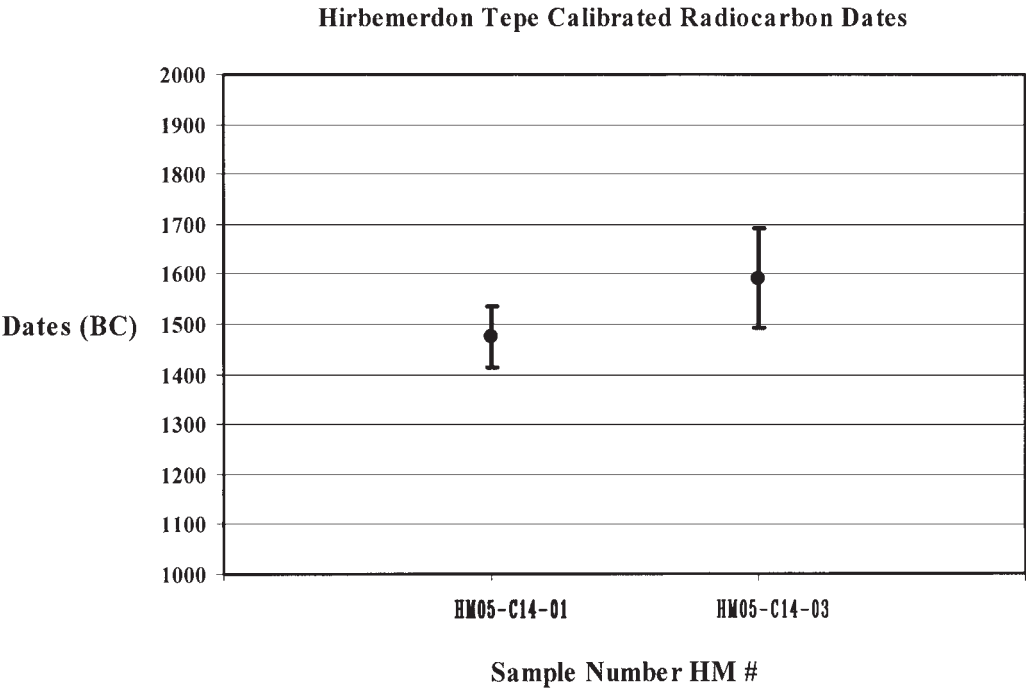


Table 1. Calibrated Radiocarbon dates from Sub-phase A of Area A architectural complex.