CHAPTER SEVEN

THE TAʿYINAT SURVEY, 1999–2002

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INTRODUCTION

Tell Taʿyinat (AS 126) forms a large, low-lying mound 1.5 km east of Demir Köprü on the northern bend of the Orontes River at the point where it turns west and winds around the southern edge of the Amuq Valley (fig. 7.1). Tell Taʿyinat was the scene of large-scale excavations in the 1930s, conducted as part of the University of Chicago's Syro-Hittite Expedition, which revealed a lengthy occupational history dating to the Early Bronze and Iron Age periods. This archaeological record and the available documentary evidence indicate that the site preserves the remains of ancient Kunulua, capital of the Neo-Hittite/Aramaean Kingdom of Patina/Unqi. Since the results of the Chicago excavations remain largely unpublished, the Taʿyinat survey was initiated in part with the aim of producing a final report that integrates the results of this earlier research effort.

The Taʿyinat survey was conceived within the broader research framework of the Amuq Valley Regional Projects, which has been systematically investigating the archaeology of the Amuq Valley in southeastern Turkey since 1995. From its inception this explicitly regional project has employed a multi-scalar approach, conducting both trans-regional and site-specific field investigations in the effort to create a more comprehensive record of the economic and sociocultural history of the first sedentary communities to emerge in this part of the ancient Near Eastern world.

As part of this effort, the Amuq Valley Regional Projects have documented a distinct change in settlement on the Amuq Valley that occurred toward the end of the fourth millennium B.C. (Yener et al. 2000b: 183–84). Throughout most of the fourth millennium (particularly Amuq Phase G), settlements appear to have been concentrated primarily in the central part of the plain, forming a loosely integrated pattern. After a (possible) hiatus, a decisive shift is evident in the early part of the third millennium (corresponding with Amuq Phase H) toward the southern fringes of the plain, with Tell Taʿyinat (AS 126) emerging as the largest settlement in the region at approximately 20 ha. Its position along the main east–west route linking inland Syria with the Mediterranean coast suggests a corresponding shift in the economic and political organization of the region. In addition to the introduction of red-black burnished ware, Amuq Phase H witnessed the emergence of a dense configuration of small (1–2 ha) sites, replacing the dispersed pattern of moderately-sized Amuq Phase G settlements that had preceded it. These sites were heavily concentrated in the southern part of the plain and at all the principal entry points into the valley.

However, several questions remain concerning the historical development of the Amuq region. Was this settlement shift part of an indigenous urbanization process, or the result of a large-scale migration associated with the introduction of the distinctive red-black burnished ware tradition that fundamentally transformed the social and cultural landscape of the plain during this period? Did a corresponding economic shift take place from the predominantly localized production and consumption of agricultural goods to more extensive, inter-regional networks that facilitated the commercial exchange of agricultural surplus as well as non-agricultural products? Furthermore, what role did these communities play in the extraction, processing, and distribution of the metals and other natural resources available in the mineral-rich mountains that surround the plain? The renewed investigations at Tell Taʿyinat (AS 126) were initiated as part of the broader effort to create a regional database capable of facilitating the detailed comparative analyses necessary to address these research questions and thereby achieve greater insight into the historical development of the first state-ordered societies to emerge in this part of the ancient Near East.

The large-scale excavations of the original Chicago Expedition also produced substantial exposures of cultural strata dating to the Iron Age. Preliminary indications suggest that the site expanded considerably during the early phases of the Iron Age II period (specifically Amuq Phase Ob, ca. 900–800 B.C.), corresponding with an urbanization process that saw the region transformed into a small Neo-Hittite/Aramaean state. Contemporary Neo-Assyrian sources, as well as epigraphic evidence recovered during these excavations, identify Iron Age Tell Taʿyinat (AS 126) with Kunulua, capital of the Kingdom of Patina/Unqi. The Iron Age levels at Tell Taʿyinat, therefore, also offer an opportu-

nity to correlate archaeological remains with the historical development of one of the small territorial nation-states that emerged along the eastern Mediterranean seaboard during the first millennium B.C.

Due to the considerable size and importance of Tell Ta'yinat (AS 126), the survey was conceived and initiated as part of a long-term project, committed to fully and systematically documenting the archaeological record preserved at the site. Given the extensive architectural remains preserved on the site, conservation will also play a central role in this project. Furthermore, these remains will be linked to the original Chicago excavations, with the aim of producing a comprehensive final report that integrates the results of both projects.

PREVIOUS INVESTIGATIONS AT TELL TA'YINAT

THE SYRO-HITTITE EXPEDITION

Large-scale excavations were conducted by the University of Chicago at Tell Ta'yinat (AS 126) over four field seasons between 1935 and 1938 as part of the Syro-Hittite Expedition. The excavations focused primarily on the west central part of the upper mound, although areas were also opened on the eastern and southern edges of the upper mound and in the lower city (see fig. 7.2). In all, the excavations achieved large horizontal exposures of five distinct architectural phases, or "building periods," dating to the Iron Age II period (Amuq Phase O, ca. 950–550 B.C.; Haines 1971: 64–66). A series of isolated soundings (see particularly T 4 and T 8 in fig. 7.2) below the earliest Amuq Phase O floors produced remains dating to the third millennium (primarily Amuq Phases I–J, but also H; Braidwood and Braidwood 1960: 13–14), indicating that a lengthy period of abandonment occurred between the Early Bronze and Iron Age settlements at the site.

Remains of the First Building Period were exposed primarily in the West Central Area and included two large structures (Buildings XIII and XIV) apparently arranged around an open courtyard (fig. 7.2). The northernmost of the two, Building XIII, preserved the distinctive ground plan of a north Syrian *bīt ḫilāni* (Haines 1971: 38–40, 64). During the Second Building Period, these two structures were leveled and an entirely new complex of buildings erected in their place, including the most famous of Tell Ta'yinat's *bīt ḫilāni*-palaces, Building I, with its adjacent *megaron*-style temple (Building II). Building I, along with a northern annex (Building VI) and a second *bīt ḫilāni* (Building IV), faced on to a paved central courtyard (Courtyard VIII; fig. 7.3). A paved street linked the courtyard to a large gate (Gateway XII) that provided access from the lower city. A second gate (Gateway VII) on the eastern edge of the upper mound and two gates in the lower city (Gateways III and XI) were also assigned to this building phase (Haines 1971: 64–65).

Renovations to the buildings in the West Central Area accounted for most of the activity assigned to the Third Building Period. The fragmentary remains of a large structure (Building IX) resembling an Assyrian courtyard-style building were uncovered on the knoll at the southern end of the mound (fig. 7.2) and tentatively assigned by the excavators to this phase as well. The Fourth Building Period witnessed the continued occupation of the *bīt ḫilāni* in the West Central Area but saw the abandonment of the temple (Building II). A series of poorly-preserved structures confined to the highest parts of the upper mound (e.g., Building X) were assigned to the Fifth (and final) Building Period (Haines 1971: 65–66).

In the absence of a more complete report, Gustavus Swift (1958) provides a preliminary study of the second- and first-millennium pottery (Amuq Phases K through O) gathered by the Chicago Expedition. Amuq Phase O, corresponding to the Iron Age II period, was marked by the widespread presence of red-slipped burnished ware. Although common painted and simple wares continued (with some modification) from the Early Iron Age (Amuq Phase N), according to Swift (1958: 124–26), the appearance of red-slipped burnished ware coincided with the earliest levels of Amuq Phase O, making it the primary marker for the start of the phase.

Drawing primarily on the artifactual evidence recovered from the Iron Age levels at Chatal Höyük (AS 167), Tell al-Judaidah (AS 176), and Tell Ta'yinat (AS 126), Swift proposed subdividing the Amuq Phase O sequence into four stages, which he labeled Stages Oa–Od, with ceramic imports and key historical events providing a chronological framework. Each stage also coincided with changes in the surface treatment of red-slipped burnished ware. Hand burnishing occurred exclusively in Stage Oa (ca. 950–900 B.C.). Wheel burnishing was introduced in Stage Ob (ca. 900–800 B.C.) and then became the primary surface treatment in Stages Oc (ca. 800–725 B.C.) and Od (ca. 725–550 B.C.; Swift 1958: 139–41, table 11). Sherds of eighth-century Attic geometric pottery were recovered from Stage Oc levels, while Corinthian ware, Attic black-figure ware, and Assyrian palace ware were found exclusively in Stage Od (Swift 1958: 154–55). Since a stratigraphic phasing of the excavations had not been completed by the time of his study, Swift was not able to correlate his analysis with the architectural sequence later published by Richard Haines.

The Chicago excavations also produced an extensive corpus of Akkadian, Aramaic, and Neo-Hittite (or Luwian) inscriptions. Luwian hieroglyphic inscriptions account for the largest number, a total of eighty-five fragments, thirty-two of which have been shown to come from seven distinct monumental inscriptions (Gelb 1939: 38–40). One of these, the so-called Halparuntas inscription, is comprised of six basalt fragments from part of a colossal statue of an enthroned figure. Although the precise provenience of the statue remains unclear,[38] the inscription makes reference to $Halpa^{pa}$-runta-a-s(a), very possibly the same Neo-Hittite ruler who is listed as having paid tribute to Shalmaneser III in the mid-ninth century (see further discussion below).

If this historical correlation is correct, it provides a possible date for the remainder of the Luwian hieroglyphic inscriptions found at the site and raises the possibility of isolating the building period, and cultural horizon, in which these monumental objects were erected. With only a few exceptions, all of the fragments appear to have been found in the fill or foundation trenches of structures dating to the Second Building Period (Gelb 1939: 39–40; Haines 1971: 66); in other words, in secondary and tertiary contexts. Moreover, all but one of the inscriptions (an altar piece in obvious secondary reuse in Building II) clearly had been smashed and destroyed intentionally before being discarded. The Halparuntas inscription, therefore, would appear to date the Luwian epigraphic remains at Tell Ta'yinat (AS 126) to the mid-ninth century or earlier, while their *stratigraphic* context places this material in the First Building Period.

A number of pottery sherds and small stone artifacts inscribed in Aramaic were uncovered during the Oriental Institute excavations at Tell Ta'yinat (AS 126). While this material remains unpublished, one inscription has received some attention. Fragments of a small bowl of "late Phase O ware" were found inscribed with the word KNLH (or KNLYH), tantalizingly similar linguistically to Kunulua, capital of the Kingdom of Patina/Unqi. The paleography of the inscription suggests a seventh-century date (Swift 1958: 191–92). It is not clear whether this is the same Aramaic-inscribed sherd reported by Haines to have been found on Floor 2 of Building I in the West Central Area (1971: 66). If so, this inscription would place the Third Building Period in Swift's Od sub-phase and further confirm the historical identification of the site.

Cuneiform inscriptions recovered during the course of the excavations included four small monument fragments, five tablets, and a stone cylinder seal. The most informative Neo-Assyrian text, however, is a dedication, "for the life of Tiglath-pileser, King of Assyria," carved on an ornamental copper disk found in the vicinity of Building I and assigned by the excavators to its second level (or Floor 2; Swift 1958: 183–84; Brinkman 1977: 62). Despite its uncertain stratigraphic context, this votive would seem to corroborate the dating of the Third Building Period, linking its founding levels to the beginning of Subphase Od and placing the Second Building Period squarely within Subphase Oc (ca. 800–725 B.C.).

Six limestone orthostats, carved in the Assyrian provincial style, were found reused in the uppermost layer (of three layers) of pavement in Gateway VII (McEwan 1937: fig. 10; Haines 1971: 60–61). They therefore probably date to the Third Building Period or later. A seventh orthostat, carved with a scene of a mounted charioteer riding over a fallen human figure, is reported to have been found at Tell Ta'yinat (AS 126) in 1896 (Braidwood 1937: 33; Orthmann 1971: 83) but remains unprovenanced. Finally, a bronze statuette was also attributed by the excavators to the Neo-Assyrian phase of occupation at the site (McEwan 1937: fig. 9).

HISTORICAL REFERENCES TO IRON AGE TELL TA'YINAT

The earliest references to the Amuq region during the Iron Age are preserved in the Neo-Assyrian royal annals (for a more thorough review of these sources, see Harrison 2001b). The earliest reference dates to the reign of Ashurnasirpal II and occurs as part of a description of a campaign conducted in ca. 870 B.C. to subdue a series of kingdoms in northwest Syria, including the Kingdom of Patina and its capital Kunulua (Grayson 1991: 216–19, text A.0.101.1, column iii, lines 55–92a). The account also includes a detailed itinerary of the campaign route that clearly situates the Kingdom of Patina in the Amuq Valley and its capital on the southern edge of the plain just north of the Orontes River, leaving little doubt that Kunulua should be associated with Iron Age Tell Ta'yinat (AS 126; cf. Hawkins 1982: 389, n. 139; Liverani 1992: 74–75) and not Tell 'Ain Dara (contra Orthmann 1971: 198, n. 21; 1993: 251, n. 42) or other sites that have been proposed.[39]

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38. Gelb (1939: 39) locates it near the "East Gate" but does not specify whether he is referring to the upper or lower city, while Haines (1971: 41) states that it was found "in the debris" of Courtyard VIII in the West Central Area.

39. Other earlier candidates have included Tell Jindaris/Jinderez Tepe (AS 58; Olmstead 1918: 248, n. 67; Braidwood 1937: 25, n. 3), Chatal Höyük (AS 167; Gelb 1935: 189), and Tell Kuna'na (Elliger 1947: 71), located near the Afrin River.

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Shalmaneser III continued the aggressive expansionist policy of his father, launching the first of a series of campaigns against western Syria in 858 B.C. (Grayson 1996: text A.0.102.2, column i, line 41b–column ii, line 10a; see also text A.0.102.3). In the years following these campaigns, his official annals report that he received tribute from several rulers of Patina, including Qalparunda (Grayson 1996: text A.0.102.1.92b–95; text A.0.102.2, column ii, line 21; Hawkins 1982: 391–92; 1995: 94–95), corroborating the Luwian form of this ruler's name preserved in the hieroglyphic inscription from Tell Taʿyinat (AS 126) mentioned above (Gelb 1939: 39). References to the Kingdom of Patina also appear in a number of inscriptions that date to the reign of Shalmaneser. Interestingly, in some of these inscriptions the designation "Unqi" occurs in place of Patina (Harrison 2001b: 118–19).

The latter decades of the ninth century correspond with a temporary decline in Assyrian power. Consequently, the official records are silent regarding political developments in western Syria. However, the reign of Adad-narari III (810–783 B.C.) saw a limited resurgence that resulted in a number of campaigns against coalitions of Syrian states. The first of these, in 805/804, was directed against an alliance led by Atarshumki, King of Arpad, and appears to have included the Kingdom of Patina/Unqi (Hawkins 1982: 399–400; Weippert 1992: 56–57).

A boundary stela found along the Orontes River to the southwest of Antakya hints at a decisive downturn in the political independence of Patina/Unqi. The inscription describes the transfer of the city of Nahlasi along with all its lands and settlements to Atarshumki of Arpad, apparently at the expense of Zakkur of Hamath, and the realignment of the border between the two kingdoms to the Orontes River (Donbaz 1990; Grayson 1996: text A.0.104.2). This action appears to have taken place during the campaign of 796 B.C. and therefore may be associated with the events recorded on the Zakkur Stela (cf. Donner and Röllig 1976: no. 202). In the inscription, Zakkur accuses Bar-Hadad of Damascus of having induced a coalition of northern kingdoms, including "ʿmq," clearly the Aramaic equivalent to the Akkadian Unqi, to attack Luʿash, the northern province of Hamath (Hawkins 1982: 400, 403–04; Weippert 1992: 58–59; Dion 1997: 128–29).

Whatever the broader geo-political ramifications of these events (see further in Dion 1995; 1997: 201–02; Harrison 2001b: 120–21), it is clear that a decisive shift had occurred in the political fortunes of the Kingdom of Patina/Unqi by the end of the century. Whether we assume that the Antakya stela was found near its original location (cf. Weippert 1992: 58, n. 97) or was transported down the Orontes River from a point upstream, perhaps as far south as Jisr al-Shughur (cf. Hawkins 1995: 96), the basic result was the same. At the very least, the territorial extent of Patina/Unqi had been reduced considerably, and the kingdom may even have lost its political independence altogether. With the start of the eighth century, therefore, it seems reasonable to conclude that Aramaean Bit-Agusi had successfully extended its influence, if not outright control, over the former Neo-Hittite Kingdom.

Two Aramaic inscriptions discovered at sites in the Aegean may also refer to the Amuq region during this period. Both were found carved on bronze equestrian harness trappings evidently taken as booty "from ʿmq." One was recovered from the site of Eretria (Carbonnet 1986) and the other from the Heraion on Samos (Kyrieleis and Rollig 1988). Both inscriptions, which have been dated paleographically to the ninth century, also make reference to Hazael and "the year that our lord [i.e., Hazael] crossed the river" (Bron and Lemaire 1989; Ephʿal and Naveh 1989). Intriguingly, a similar bronze frontlet was uncovered in Room L of Building I at Tell Taʿyinat (AS 126). Although its precise stratigraphic context remains unclear, the iconography of the frontlet suggests a date in the late eighth or seventh century B.C. (Kantor 1962).

Following the reign of Adad-narari III, Assyrian references to the region fall silent again until active contact was resumed by Tiglath-pileser III. The kingdom and region were now referred to exclusively as Unqi. In 738 B.C., as part of his second western campaign, we are told that Tiglath-pileser seized a rebellious Unqi, destroyed Kunulua, and disposed of its king Tutammu and deported many of its citizens. He then rebuilt the capital, settling it with people displaced from elsewhere in the Assyrian Empire, and created the province of Kullani (Tadmor 1994: Annal 25:3–12; Hawkins 1974: 81–83; idem 1982: 410–11; Weippert 1982: 395–96). The region appears to have remained under Assyrian administrative control until the collapse of the empire, receiving only passing mention during the reigns of Sennacherib, when the provincial governor served as eponym (in 684 B.C.), Esarhaddon, and Ashurbanipal (Hawkins 1982: 425; 1980–83; Millard 1994: 51).

THE TAʿYINAT SURVEY

The survey of Tell Taʿyinat (AS 126) was initiated in 1999 and conducted as part of the field season, which took place between August 11 and August 25 (for a more detailed report of the 1999 season, see Harrison and Batiuk

2001).[40] The primary objectives of the 1999 survey at Tell Ta'yinat were to determine the spatial extent of the ancient settlement and to assess the feasibility of conducting further explorations at the site. Although the presence of dense cotton coverage prevented a conventional surface survey of the site, the survey team was able to conduct a reasonably intensive investigation over a four-day period, surveying both the upper mound and lower settlement. A detailed topographic map of Tell Ta'yinat was created during the 2001 field season (see further in Yener et al. 2002). Finally, in 2002 a geomagnetic remote sensing survey of the lower mound was initiated as part of the newly launched Ta'yinat Archaeological Project (TAP).[41]

These brief preliminary field seasons have allowed the creation of a detailed base map delineating the topographic and cultural parameters of the ancient settlement that have confirmed Tell Ta'yinat's position as the predominant settlement on the plain throughout much of the third and first millennia B.C. The Ta'yinat survey has also confirmed that much of the site remains intact and accessible for archaeological exploration despite intensive agricultural cultivation and modern development and therefore warrants further attention as part of the ongoing effort to document the cultural history of the Amuq Valley during the Bronze and Iron Ages.

SITE TOPOGRAPHY

More than 1,500 readings (including their x, y, and z coordinates) were collected with the aid of a Total Station surveying instrument during the 2001 field season. These were then used to create a computerized base map (in ArcView GIS) of the entire site (fig. 7.4). The mapping survey revealed that Tell Ta'yinat (AS 126) is comprised of two distinct topographic units, an elongated upper mound and a sprawling lower settlement. The upper mound sits just north of the modern Antakya-Reyhanlı road and measures approximately 400 m (east–west) by 500 m (north–south), or 20 ha in size. The lower settlement, which is now largely buried beneath the alluvium of the Orontes floodplain, extends to the north, east, and southeast in a broad curving arc that encircles the upper mound.

A CORONA satellite image, obtained following the 2000 field season,[42] confirms the settlement pattern delineated by the topographic survey. When the topographic map was laid over a georeferenced digital copy of the CORONA image, a clearly discernible "shadow" outlining the lower mound emerged (fig. 7.5). A number of other intriguing anomalies are also discernible on the CORONA image, including a linear feature (a possible fortification wall?) that appears to enclose the northern and western sectors of the lower settlement.

The results of the surface survey (see further description below) provide further confirmation of the spatial parameters of the lower settlement delineated by the topographic survey and CORONA satellite image (fig. 7.6). Sherd density distributions indicate that the lower settlement extended north from the upper mound for approximately 200 m and to the east for approximately 100 m, with a small protrusion extending to the southeast. The measurements suggested by these layered data extend the composite size of both upper and lower mounds at Tell Ta'yinat (AS 126) to 500 × 700 m, or an area encompassing approximately 35 ha. These measurements differ slightly from those of the original excavators, who estimated the size of the site at 500 × 620 m (Haines 1971: 37), but match the figures recording during the Braidwood survey (Braidwood and Braidwood 1960: 13).

GEOMAGNETIC REMOTE SENSING SURVEY

Given the considerable size of Tell Ta'yinat, its complex settlement history, and the extensive excavations conducted previously at the site, a remote sensing survey was considered the most prudent and effective way to assess the archaeological potential of the various components of the site. When combined with the results of the topographic and surface surveys, these layered data will permit focused investigations of those areas of the site, such as the West Central Area, which to date have indicated the greatest archaeological potential.

The primary goal of the 2002 field season was to conduct a preliminary pilot study and determine the most effective remote sensing method (and strategy) to use in the field at Tell Ta'yinat (AS 126) before embarking on a more comprehensive survey of the site. As a relatively low-cost yet effective (and widely used) remote-sensing technique,

magnetometry was our first choice for the pilot study. Our primary concern was whether we would be able to isolate the magnetic lateral contrast created by settlement structures against the background noise of local geophysical conditions. Accordingly, a 7 ha area in the northeast sector of the lower settlement was marked off and mapped by pacing east–west transects spaced approximately 1 m apart (fig. 7.7), carrying a hand-held magnetometer. To provide a control, a second magnetometer was set up as a base station. In all, more than 600 pedestrian transects were completed, and more than 195,000 magnetic readings recorded, with a coverage density of approximately one reading every 0.5 m.

Although a comprehensive analysis of these data is still in progress, a number of preliminary observations can be made. Most importantly, the magnetometer succeeded in recording numerous magnetic anomalies that appear to represent artificial, rather than natural, sub-surface features. Furthermore, when the magnetic data are plotted spatially, these anomalies consistently translate into sharply delineated angular structures. Four magnetic anomalies are highlighted as examples in figures 7.8 and 7.9. In each case, the anomaly preserves a series of rectilinear features that appear to form a coherent structure or set of structures (see further detail in fig. 7.10). When georeferenced with the site base map, the anomalies also appear to form a composite plan with a shared gradient and orientation toward the northeast (fig. 7.11). While additional analysis is still needed to clarify the precise nature and function of these anomalies, it nevertheless seems clear that they represent the product of human activity and very likely delineate part of the lower (or outer) settlement of Tell Ta'yinat (AS 126).

THE SURFACE SURVEY

Sampling Strategy and Recovery Methods

A preliminary reconnaissance survey was conducted during the 1999 field season to relocate the original excavation units of the Chicago Expedition and determine whether any architecture uncovered during these excavations remained *in situ*. This effort produced a number of important discoveries. Only Field IX, located on a knoll at the southern end of the upper mound (see fig. 7.2), was found to be inaccessible, a large cotton processing facility having been constructed over this part of the site in the 1950s. At the lower southern edge of the upper mound, in a drainage canal that borders the northern shoulder of the Antakya-Reyhanlı road, we discovered the doorposts that had flanked the entrance to Gateway III (cf. Haines 1971: 58–59, pl. 111). Both posts, carved from blocks of basalt, were found protruding vertically from the ground and appeared to be in their original position. This discovery permitted us to georeference the plan of the gateway produced by the Chicago Expedition and to link it to our GIS-formatted base map (fig. 7.12). Elevation readings taken from the top of the doorposts also permitted us to calibrate our absolute elevations with those recorded by the Chicago Expedition. In addition to Gateway III, isolated concentrations of basalt ashlars were found in a number of places along the western edge of the upper mound, clearly having been collected from elsewhere on the site. A collection of cut limestone boulders was also observed near the northwest corner of the lower mound.

Given the considerable size of the site, and the constraints imposed by cultivation and modern development, it was deemed necessary to adopt an opportunistic sampling strategy for the surface survey. Despite dense cotton cover, however, the survey team was able to achieve reasonably intensive coverage of both the upper and lower mounds. In order to distinguish between these two areas, sampling units were subdivided into "fields" (upper mound) and "sectors" (lower settlement; fig. 7.13). Each sampling unit was then traversed by means of pedestrian transects (or passes) spaced apart at 10 m intervals. All visible cultural material encountered along each transect (ceramic or otherwise) was collected and counted every 10 m. The diagnostic material recovered from each of these spatial units was then bagged and retained for further analysis. Three "fields" (A, B, and C) were laid out on the upper mound in the vicinity of the West Central Area and sampled according to this recovery procedure. This process was then repeated in the lower settlement, which was subdivided into four "sectors" (north, east, south, and west). A single pass, comprised of a series of connecting transects (A through G), was also conducted around the base of the upper mound. The spatial data produced by this sampling effort was subsequently tabulated and entered into a relational database.

Settlement Patterns

Although analysis of these data is still in progress, our findings indicate that the third-millennium settlement (specifically Amuq Phases H through J) almost certainly extended across the entire upper mound. In particular, the surface survey produced significant quantities of red-black burnished ware (fig. 7.14:10–17), typically associated with the introduction of Amuq Phase H, along the edges and around the base of the upper mound. The survey also produced significant concentrations of buff-colored simple wares (fig. 7.14:18–19), part of a long ceramic tradition that character-

izes the Amuq Phases H and I/J sequence, on the summit of the upper mound in the general vicinity of the West Central Area. Based on our calibrated elevation readings, the current surface level of the West Central Area appears to be only slightly higher than the elevations assigned to third-millennium levels in the deep soundings excavated by the Braidwood team (particularly in T 4 and T 8; see Braidwood and Braidwood 1960: 13–14, figs. 10–11). This concentration of late third-millennium pottery, therefore, may be an indication that a substantial portion of the third-millennium settlement remains largely undisturbed, yet accessible just below the surface in this area of the upper mound, having been exposed by the removal of the Iron Age levels uncovered during the Chicago excavations.

In contrast to the upper mound, the lower settlement appears to have been occupied only during the Iron Age II period, or more specifically Amuq Phase O, reaching its greatest extent sometime in the late ninth or eighth century B.C., most likely during the Second Building Period described earlier. The surface survey recovered large quantities of red-slipped burnished ware pottery throughout the lower settlement (fig. 7.14:1–9), particularly the wheel-burnished tradition, which according to the Swift sequence was introduced in the ninth century (Stage Ob) and became the predominant surface treatment in the eighth and seventh centuries (Stages Oc and Od; Swift 1958: 139–41). It is possible that the lower settlement reached as far south as Tell Ta'yinat al-Saghir (AS 127), although dense cotton coverage prevented our survey from determining this for certain. The results of the surface survey thus confirm a settlement pattern at Tell Ta'yinat (AS 126) that has also been observed at other Iron Age sites in the region, including Carchemish and Tell Afis (Mazzoni 1995: 183–89; see also 1994), and perhaps now also Tell 'Ain Dara (Stone and Zimansky 1999: 2–4).

Miscellaneous Finds

The survey also produced a variety of isolated surface finds, including fragments of building material (both stone and mudbrick), a carved stone fragment (fig. 7.15:1), possibly a piece of furniture, a rectangular, four-footed basalt bowl (fig. 7.15:2), several stone spindle whorls, and numerous clay loom weights.

The most remarkable find, however, was the corner fragment of a basalt stela, carved with several Luwian (or Neo-Hittite) hieroglyphic signs (fig. 7.15:3), which was brought to the attention of the survey by a local farmer. A preliminary analysis has suggested the possibility that this fragment may form the corner piece of one of the inscriptions recovered by the Chicago Expedition, specifically the Tell Ta'yinat 2 Inscription (J. D. Hawkins, pers. comm., February 7, 2001; for a reconstruction and further description of this document, see Hawkins 2000: 366–75).

During the course of the geomagnetic survey, a number of additional surface finds were discovered by the survey team or brought to their attention by local farmers, including a second Luwian hieroglyphic inscription, carved on a partially preserved limestone stela (fig. 7.15:4), and an Iron Age stamp seal (fig. 7.15:5). One of the team members also discovered a bronze coin in the course of pacing the agricultural fields immediately to the north of the site.

SUMMARY OBSERVATIONS

Although preliminary, the results of the Ta'yinat survey have confirmed the regional importance of the site during the third and first millennia B.C. Moreover, in keeping with the broader research objectives of the regional fieldwork effort, particularly the goal to achieve greater insight into the historical development of the first state-ordered societies to emerge in this part of the ancient Near East, it is clear that Tell Ta'yinat (AS 126) should continue to be a central focus of this ongoing effort. The Ta'yinat survey has also demonstrated that considerable portions of the site remain intact and accessible for exploration. Indeed, the destructive impact of ongoing agricultural cultivation gives urgency to the need for a more systematic investigation and documentation of the archaeological remains preserved at the site.

As both the regional settlement pattern data and the results of the survey indicate (cf. Yener et al. 2000b: 183–84; Harrison 2000a; Harrison and Batiuk 2001), it is clear that Tell Ta'yinat (AS 126) was not only the largest settlement on the Amuq Valley during the third millennium B.C., but it played a central role in the expanding commercial and political networks that emerged during this period. This development no doubt was the product of a complex process of social and economic transformation, set in motion by forces with cultural roots in the preceding fourth millennium (primarily Amuq Phase G, but beginning perhaps already in Phase F).

This largely indigenous cultural transformation was further complicated with the introduction of red-black burnished ware. The spatial distribution of this distinctive ceramic tradition has often been attributed to the southward migration of a single cultural group that reached as far south as Palestine (Esse and Hopke 1984; but see Philip 1999; Philip and Millard 2000). Rare at Cilician sites (cf. Mellink 1992, 1994), but well represented in the Amuq (primarily

Phase H; Hood 1951; Braidwood and Braidwood 1960: 358–68), red-black burnished ware can be traced to earlier traditions in northeastern Anatolia, particularly in the Kur and Araxes Valleys of Transcaucasia (cf. Sagona 1984; 2000). Concurrent with this balkanized and fluid cultural landscape is evidence for a sharp rise in metal production and a fundamental reorganization of this important industry (Palmieri et al. 1993; Yener 2000b).

The historically attested rise of Ebla as a third-millennium power in northern Syria also raises questions concerning Tell Ta'yinat's possible political role in the region during this period. Contemporary textual sources, for example, suggest that Alalakh, referred to as *A-la-la-ḫu*, was a dependency of Ebla. During the Ur III period, *Mu-ki-iš* and Ebla are mentioned as vassals of Ur. During the second millennium B.C., we know that the capital of the Kingdom of Mukish was Alalakh and that it was located at Tell Atchana (AS 136), as the archives excavated at that site clearly attest (Yener et al. 1996: 53–54; Yener et al. 2000b). Some doubt has been expressed, however, whether Tell Atchana was already inhabited in the third millennium (cf. Braidwood and Braidwood 1960: 523), despite Woolley's claim that it was (1955: 6–10). Although certainly speculative at this point, it is tempting to associate these third-millennium references with the site of Tell Ta'yinat.

During the Iron Age, as we have seen, historical sources indicate that a decisive shift occurred in the political fortunes of the region in the latter part of the ninth century, while the archaeological record suggests a corresponding transformation of the cultural landscape. Regional survey data, for example, reveal an urbanization process that culminated with the re-emergence of Tell Ta'yinat (AS 126) as the dominant settlement on the plain (Harrison 2001b: 122–24). Both the Chicago excavations and the Ta'yinat survey, meanwhile, substantiate the explosive growth of Tell Ta'yinat in the early Iron Age II period, with the settlement reaching at least 35 ha in size during the Second Building Period, when occupation expanded off the upper mound and into the lower city. The epigraphic and artifactual evidence assign this phase in the settlement history of the site to the late ninth and eighth centuries B.C., while confirming its historical identification with Kunulua, capital of the Kingdom of Patina/Unqi.
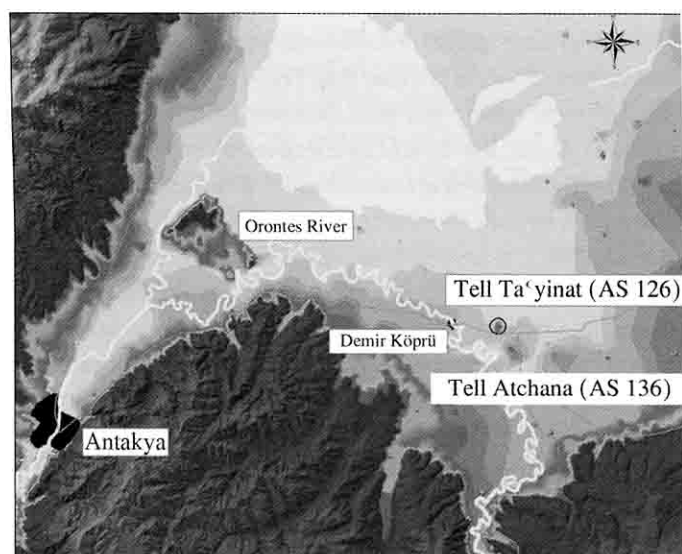
ACKNOWLEDGMENTS

Figure 7.1. Map of the Amuq Valley in the Hatay Region, Showing the Location of Tell Ta'yinat (AS 126)
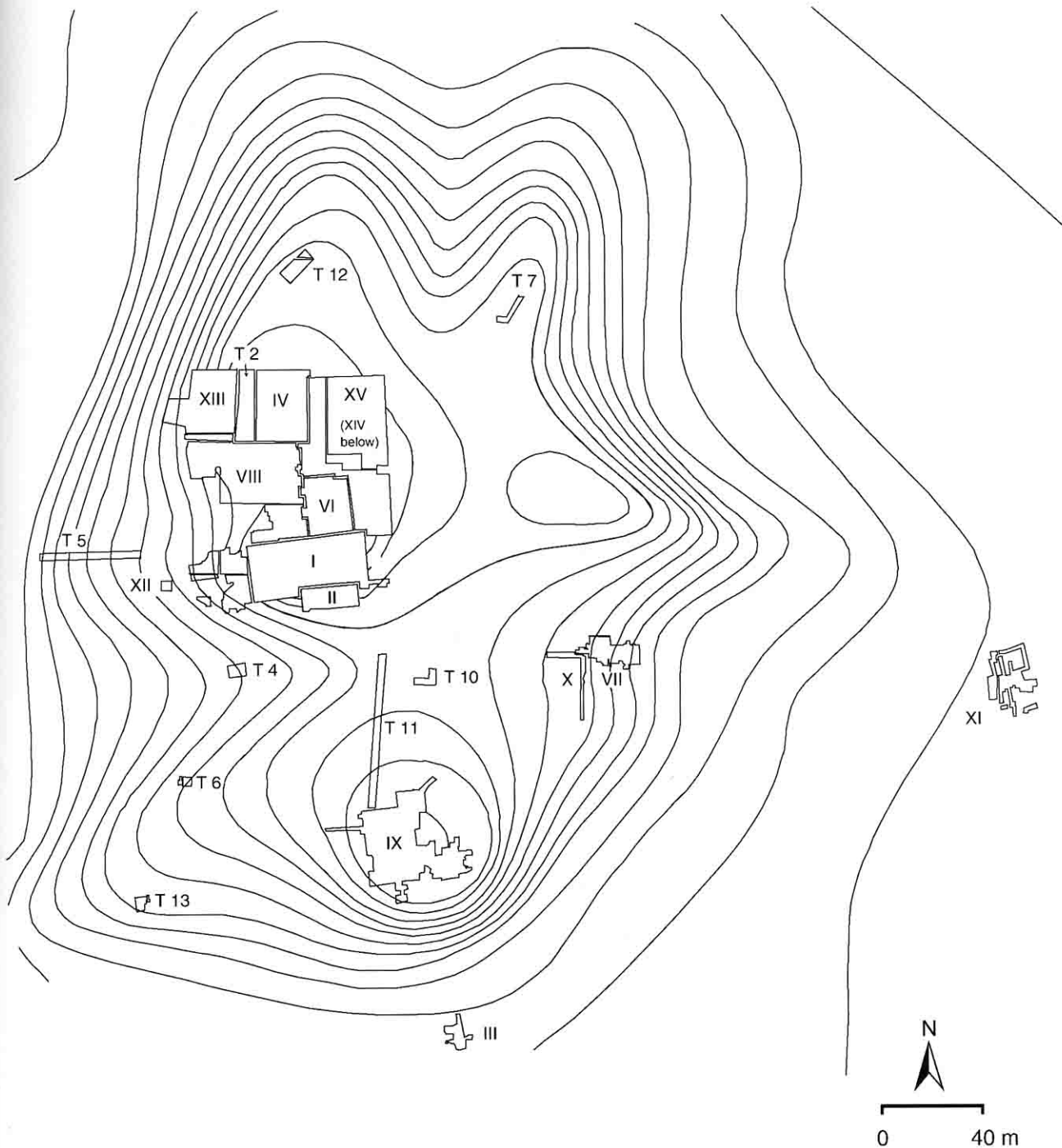
Figure 7.2. Topographic Map of Tell Taʿyinat (AS 126) with Excavated Areas (T 2, 4–7, 10–13) and Building Units (Buildings I–II, IV, VI, IX–X, XIII–XIV; Courtyard VIII; Gateways III, VII, XI–XII; and Platform XV) Indicated. Adapted from Haines 1971: pl. 93
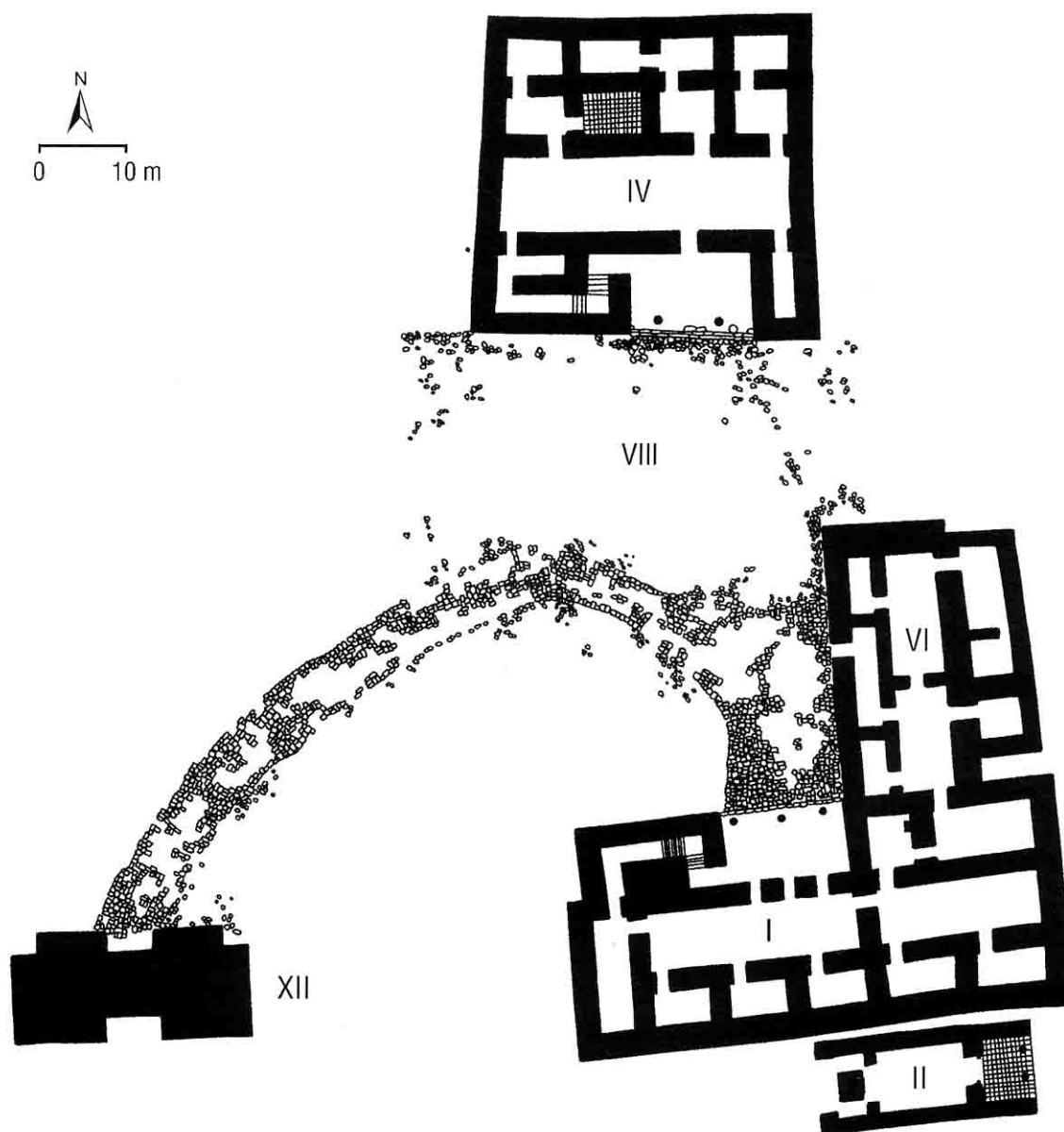
Figure 7.3. Plan of the West Central Area at Tell Ta'yinat (AS 126) Showing Architecture Assigned to the Second Building Period (Adapted from Haines 1971: pl. 106): Buildings I, II, IV, and VI; Courtyard VIII; and Gateway XII
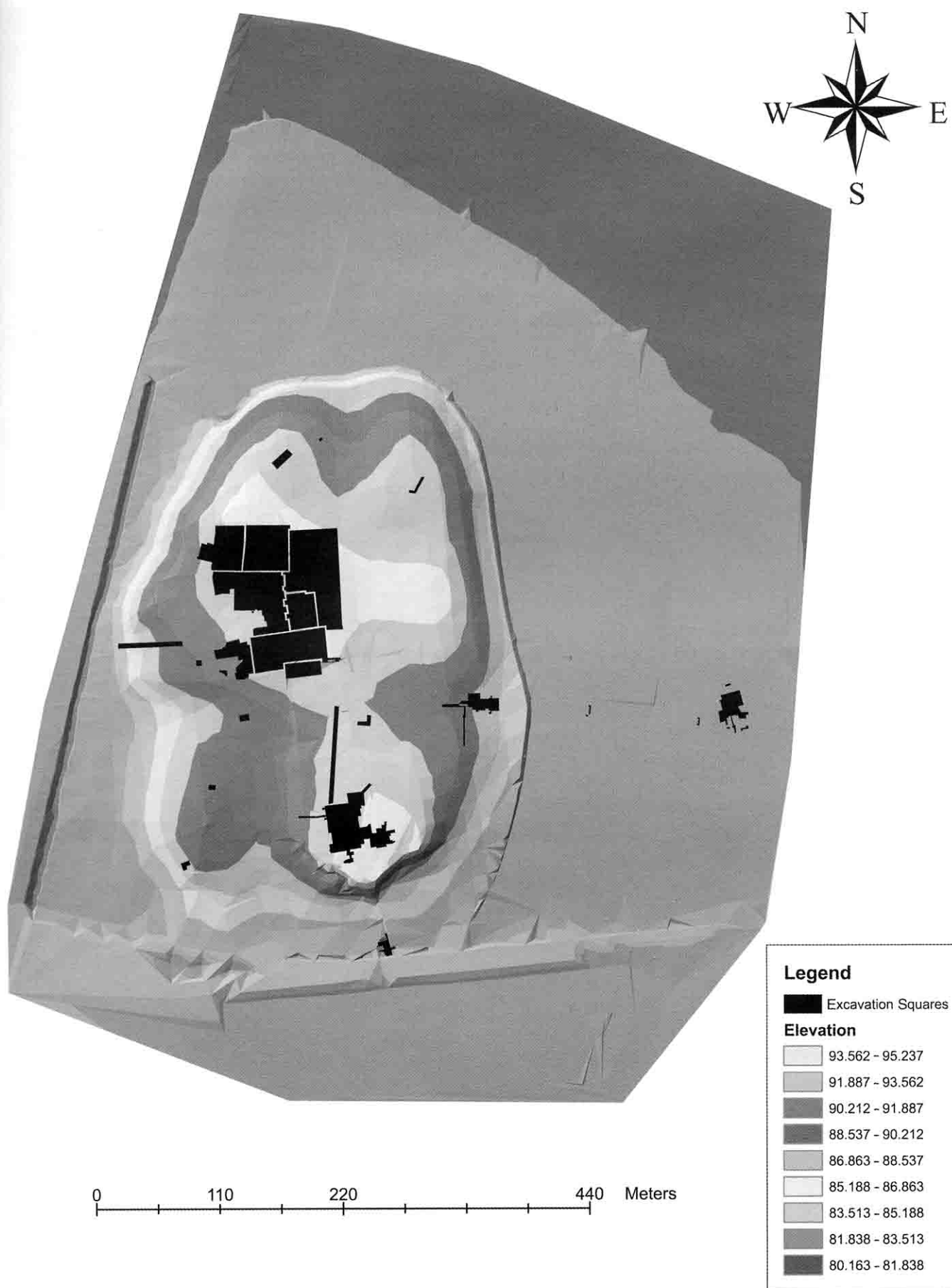
Figure 7.4. Topographic Map of Tell Ta'yinat (AS 126)

Legend

Excavation Squares

Elevation

	93.562 - 95.237
	91.887 - 93.562
	90.212 - 91.887
	88.537 - 90.212
	86.863 - 88.537
	85.188 - 86.863
	83.513 - 85.188
	81.838 - 83.513
	80.163 - 81.838

0   110   220   440   Meters

Figure 7.5. Topographic Map of Tell Taʿyinat (AS 126) Overlaid on a CORONA Satellite Image of the Site
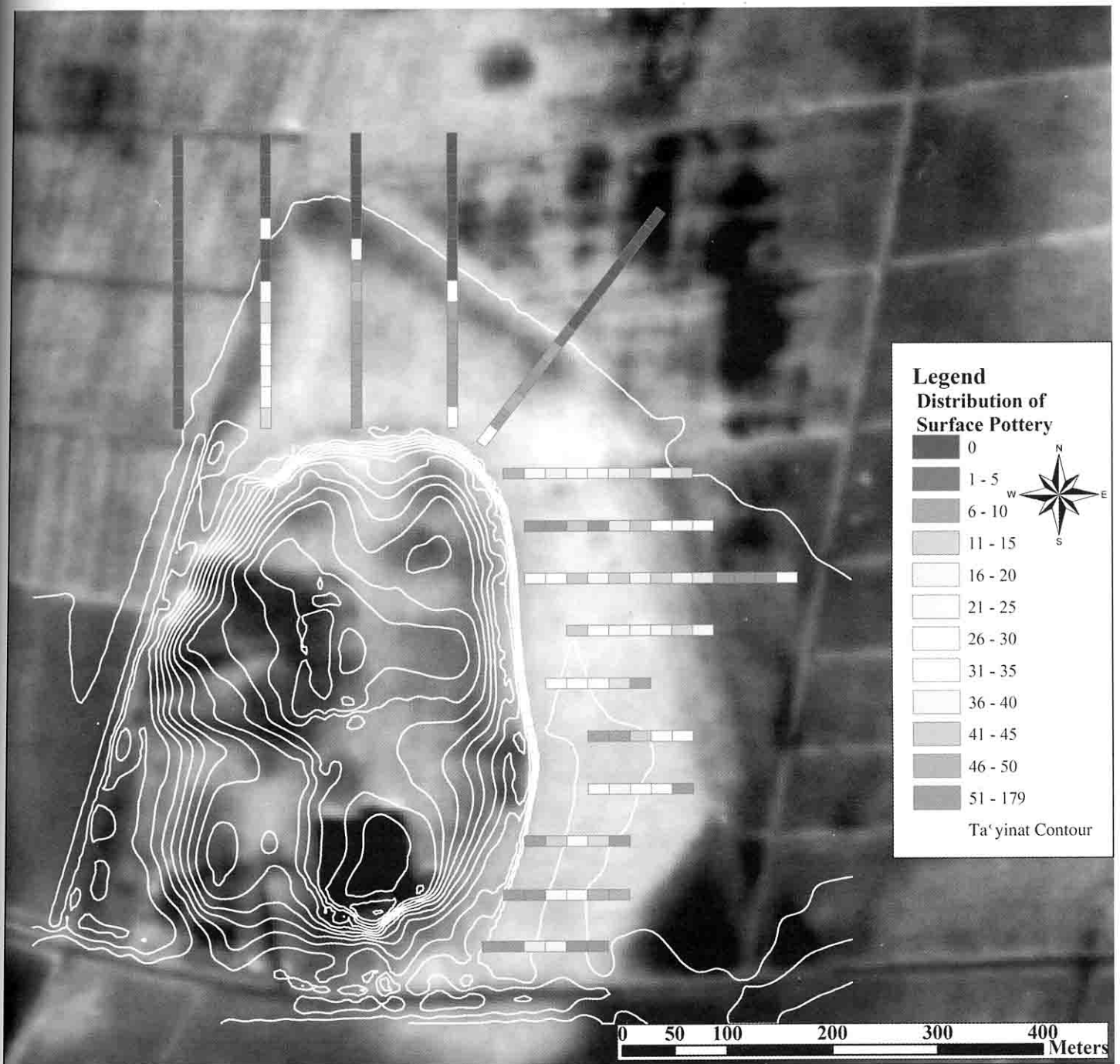
Figure 7.6. Composite Plan of Tell Ta'yinat (AS 126), Including a Density Distribution of Surface Pottery, Delineating the Extent of the Lower Settlement

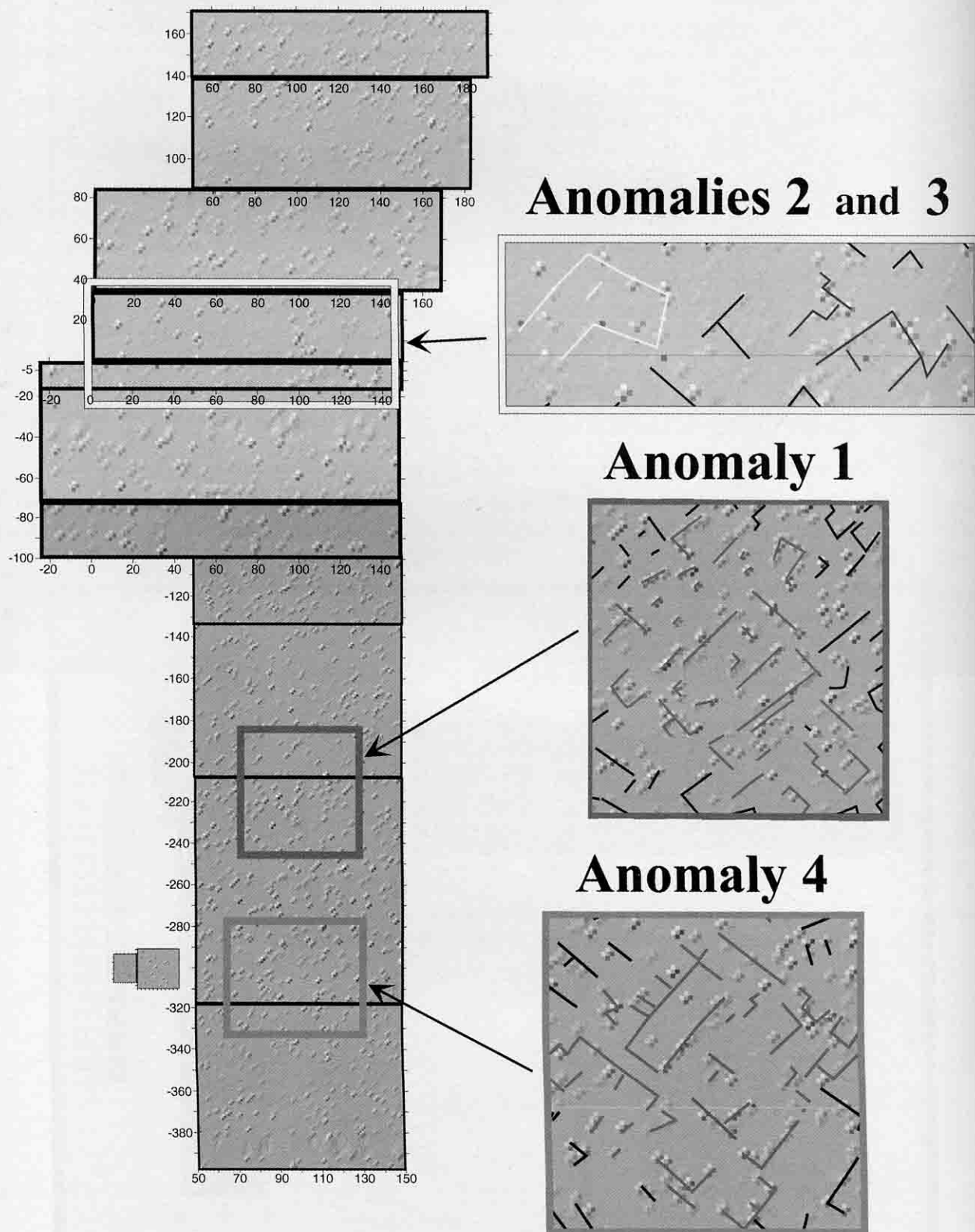# Geomagnetic Survey of Tell Taʿyinat: Lower Town
Shaded Relief Maps

Anomalies 2 and 3

Anomaly 1

Anomaly 4

Figure 7.10. Geomagnetic Survey of Tell Taʿyinat (AS 126) with Outlines Tracing the Linear Features Associated with Anomalies Nos. 1–4

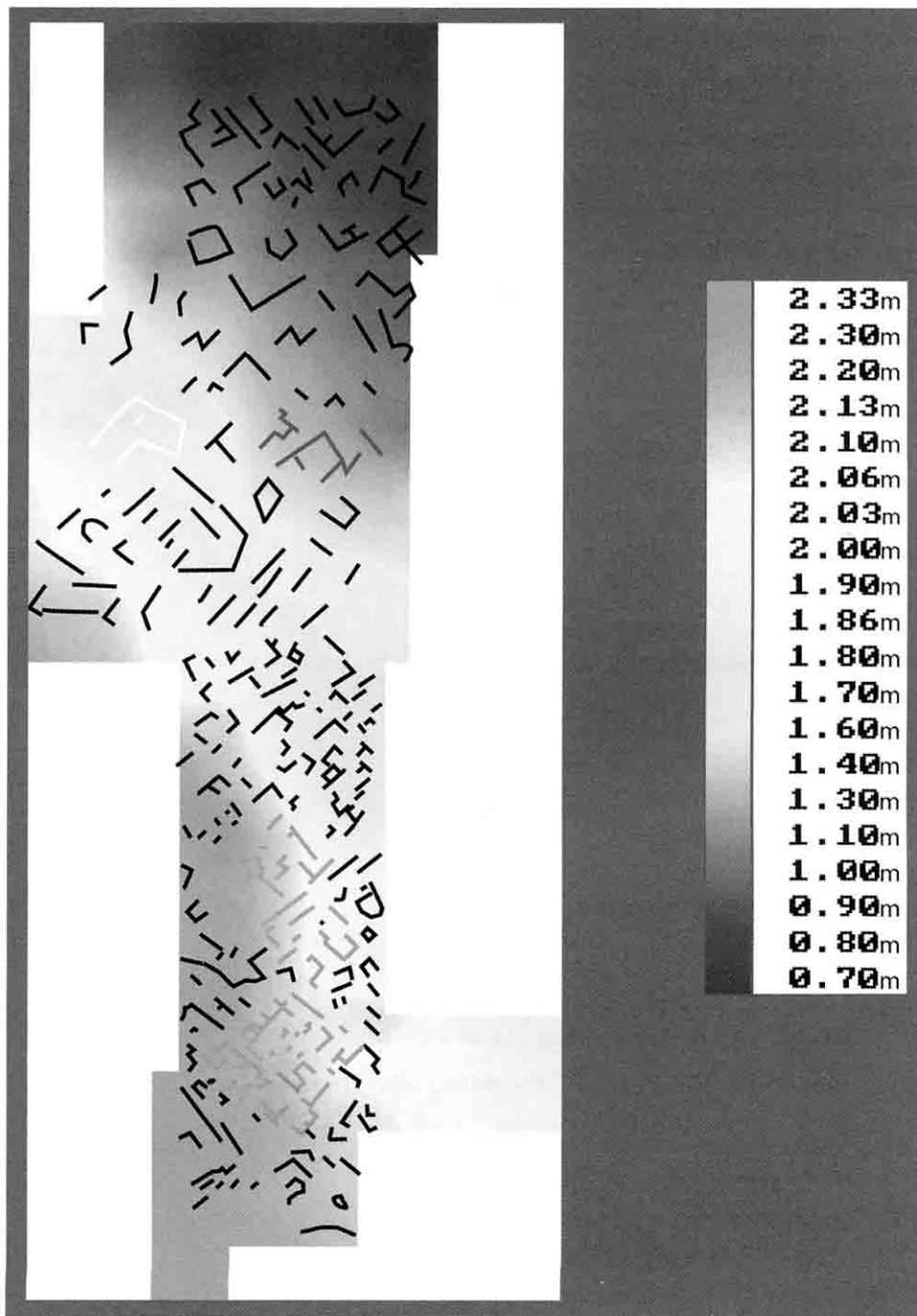|	
2.33m
2.30m
2.20m
2.13m
2.10m
2.06m
2.03m
2.00m
1.90m
1.86m
1.80m
1.70m
1.60m
1.40m
1.30m
1.10m
1.00m
0.90m
0.80m
0.70m

Figure 7.11. Microgradient Topographic Map of the Tell Taʿyinat (AS 126) Lower Settlement, Showing the Composite Plan and Orientation of the Linear Features Delineated by the Geomagnetic Survey
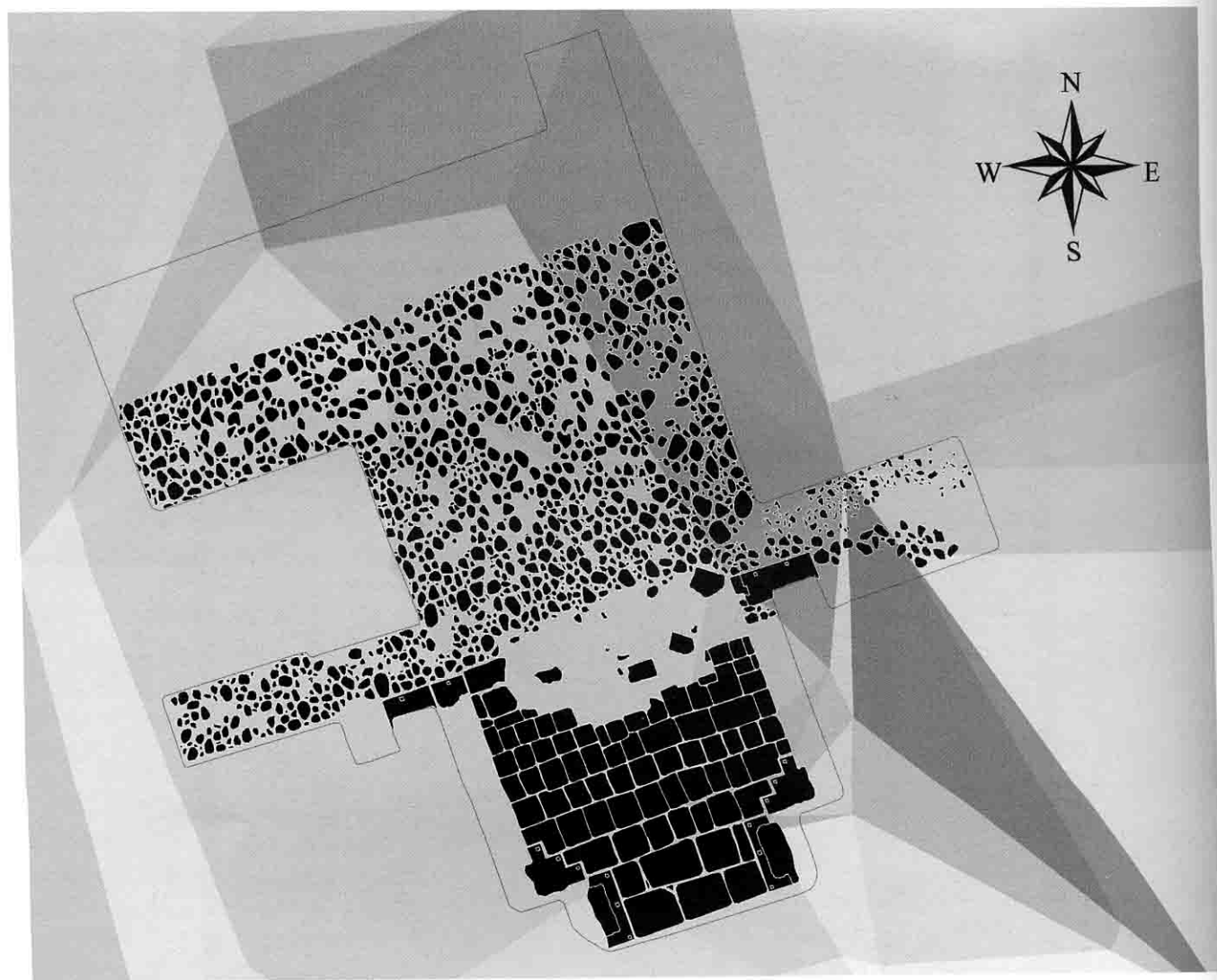
Figure 7.12. Plan of Gateway III at Tell Taʿyinat (AS 126) Overlaid on the Topographic Base Map
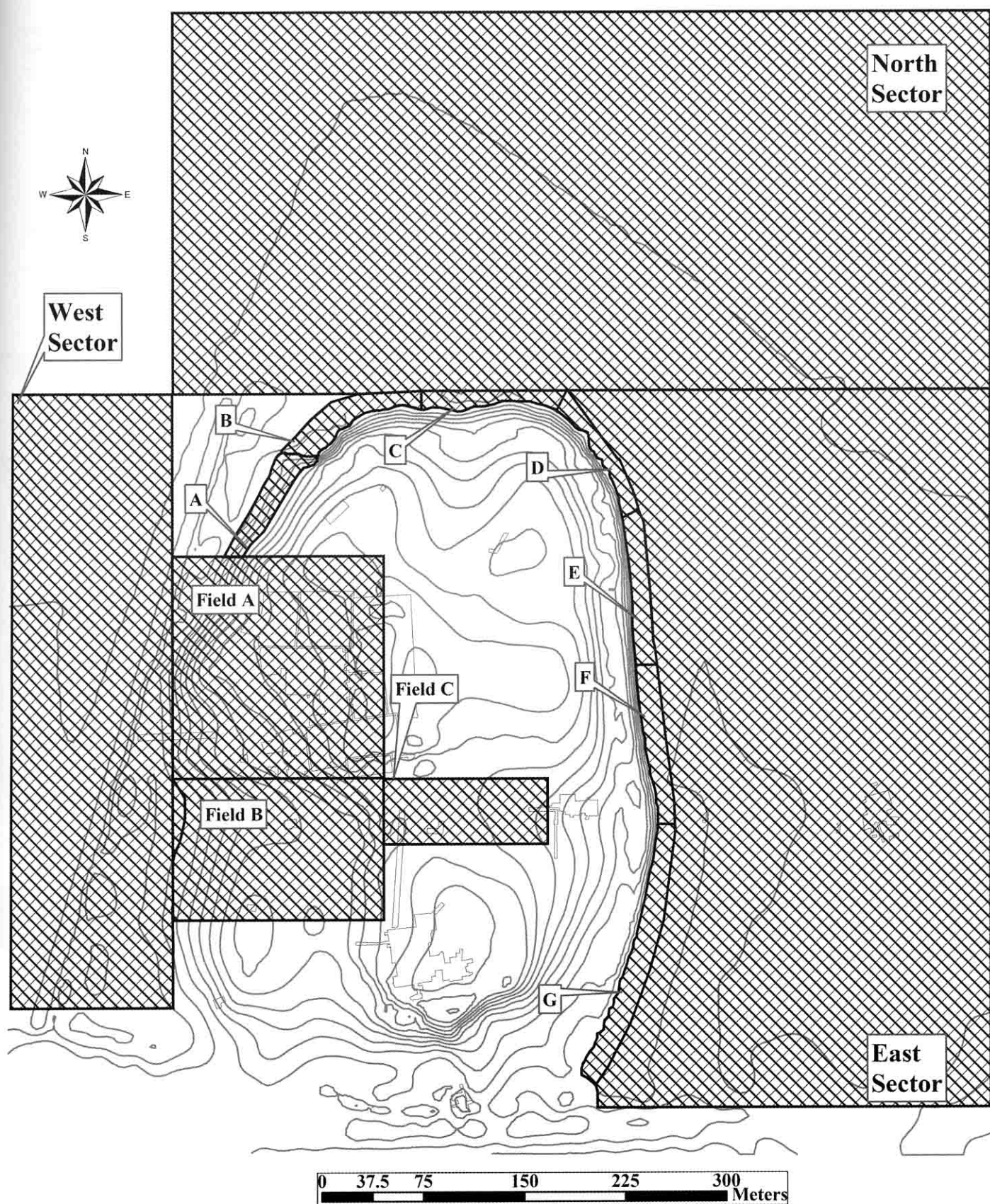
Figure 7.13. Plan of Tell Ta'yinat (AS 126) Outlining the Surface Survey Sampling Units

Figure 7.14. Surface Pottery from Tell Ta'yinat (AS 126), Including Red-slipped Burnished Ware, Red-black Burnished Ware, and Simple Ware

No.	Sherd No.	Diameter	Exterior Color	Interior Color	Exterior Margin	Interior Margin	Core	Firing	Manufacture	Ware Type*	Amuq Phase
1	AS_126_99_1	30 cm	2.5YR 5/8	2.5YR 5/8	—	—	10YR 7/4	Oxidation	Wheel-made	RSB	O
2	AS_126_99_2	15 cm	2.5YR 5/8	2.5YR 5/8	7.5YR 6/4	7.5YR 6/4	7.5Y 5/0	Underfired	Wheel-made	RSB	O
3	AS_126_99_3	21 cm	2.5YR 4/4	5YR 4/4	—	—	7.5YR 6/6	Oxidation	Wheel-made	RSB	O
4	AS_126_99_4	27 cm	2.5YR 5/6	2.5YR 5/6	7.5YR 6/4	7.5YR 6/4	7.5YR 6/0	Underfired	Wheel-made	RSB	O
5	AS_126_99_5	25 cm	2.5YR 5/6	2.5YR 5/6	10YR 6/3	10YR 6/3	10YR 5/1	Underfired	Wheel-made	RSB	O
6	AS_126_99_6	35 cm	2.5YR 5/6	2.5YR 5/6	—	—	10YR 6/4	Oxidation	Wheel-made	RSB	O
7	AS_126_99_7	30 cm	2.5YR 5/6	2.5YR 5/6	10YR B6/4	10YR 6/4	10YR 4/1	Underfired	Wheel-made	RSB	O
8	AS_126_99_8	30 cm	2.5YR 5/6	2.5YR 5/6	—	—	10YR 6/3	Oxidation	Wheel-made	RSB	O
9	AS_126_99_9	30 cm	2.5YR 6/6	2.5YR 6/6	—	—	10YR 7/4	Oxidation	Wheel-made	RSB	O
10	AS_126_99_TB 1	25 cm	2.5YR 5/8	2.5YR 5/8	7.5YR 6/4	7.5YR 6/4	5Y 3/1	Underfired	Handmade	RBBW	H/I
11	AS_126_99_TB 2	25 cm	10R 5/6	10R 5/6	—	—	10YR 6/4	Oxidation	Handmade	RBBW	H/I
12	AS_126_99_TB 3	24 cm	2.5YR 5/8	2.5YR 5/8	—	—	7.5YR 6/4	Oxidation	Handmade	RBBW	H/I
13	AS_126_99_TB 4	30 cm	2.5YR 4/6	2.5YR 4/6	7.5YR 6/8	7.5YR 6/8	5Y 3/1	Underfired	Handmade	RBBW	H/I
14	AS_126_99_TB 7	15 cm	2.5YR 4/6	2.5YR 4/6	7.5YR 6/4	7.5YR 6/4	2.5Y 4/1	Underfired	Handmade	RBBW	H/I
15	AS_126_99_TB 5	35 cm	2.5Y 2.5/1	2.5YR 6/6	5Y 4/1	10YR 6/4	—	Underfired	Handmade	RBBW	H/I
16	AS_126_99_TB 8	8 cm	10R 5/6	10R 5/6	10YR 6/6	10YR 6/6	5Y 3/1	Underfired	Handmade	RBBW	H/I
17	AS_126_99_TB 9	25 cm	10R 5/8	10R 5/6	7.5YR 6/4	7.5YR 6/4	7.5YR 5/1	Underfired	Handmade	RBBW	H/I
18	AS_126_99_TB 6	8 cm	10YR 8/2	10YR 8/2	—	—	10YR 8/2	Oxidation	Wheel-made	Simple ware	I/J
19	AS_126_99_N3 1	7 cm	5Y 7/3	5Y 7/2	—	—	5Y 6/4	Oxidation	Wheel-made	Simple ware	I/J

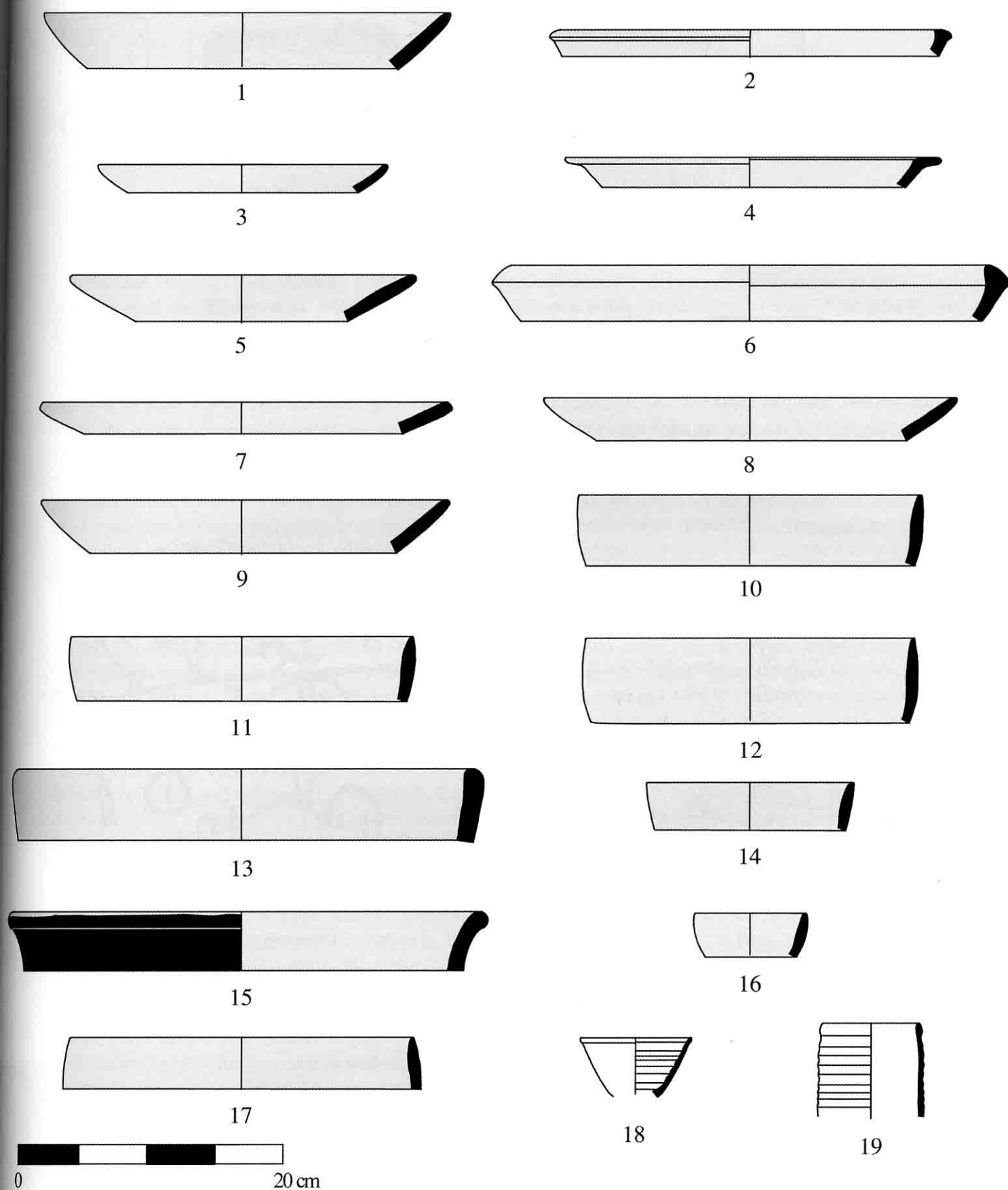*RSB = red-slipped burnished ware; RBBW = red-black burnished ware.

Figure 7.14. Surface Pottery from Tell Taʿyinat (AS 126), Including Red-slipped Burnished Ware (nos. 1–9), Red-black
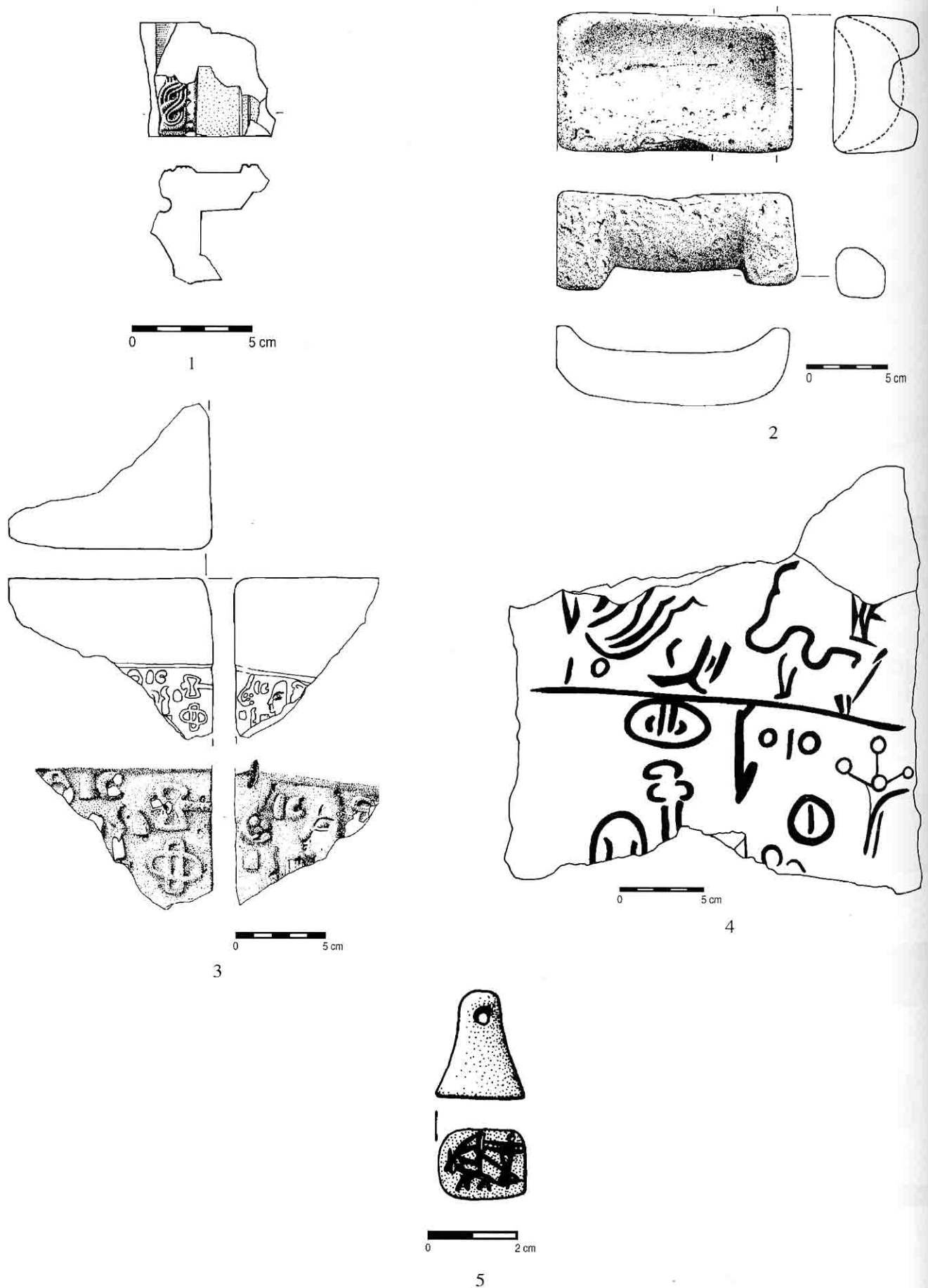Burnished Ware (nos. 10–17), and Simple Ware (nos. 18–19)

Figure 7.15. Miscellaneous Surface Finds from Tell Taʿyinat (AS 126)