

EXCAVATIONS AT LATE NEOLITHIC AL-BASĀTĪN IN WĀDĪ ZIQLĀP, NORTHERN JORDAN

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The Wādī Ziqlāp Project of University of Toronto conducted two seasons of excavations at a Late Neolithic site, al-Basātīn (WZ 135/140), that the Wādī Ziqlāp survey discovered in 2000 (Maier and Banning 2001). The goals of the 2002 season were to determine the extent of the site, to discover whether architecture and features are present, and to obtain an adequate sample of material culture for comparison with site WZ 200. The 2004 season was to continue most of these goals as well as to expose a house structure and associated surfaces, if possible.

The Wādī Ziqlāp Project is an ongoing regional examination of changing landscapes, settlement and land use in Wādī Ziqlāp's drainage basin. The project's main focus has been the Neolithic period, but the work encompasses excavations at sites ranging from Epipalaeolithic to Early Bronze Age, along with survey work covering all pre-modern periods.

Site Contexts

The excavations are distributed over two sites. Site WZ 140, which was the original focus of the 2002 work, occurs about 0m ASL on a low slope or swale alongside the higher terrace, WZ 135, on the south side of Wādī Ziqlāp, opposite Tall Abū al-Fukhār (Fig. 1). When excavations revealed that the artifacts at WZ 140 were in colluvium most likely derived from WZ 135, the focus of re-

maining fieldwork shifted to the larger, upper terrace, around 25m ASL, at the latter site, and the 2004 field season resumed work at this upper terrace (Fig. 2).

Both these terraces are only 1km downstream from Neolithic Tall Rākān (WZ 120; Banning and Najjar 2000) and almost within sight of it. Because of the numerous springs in this part of the wadi, the stream of Wādī Ziqlāp is perennial here, encouraging fairly intensive modern land use, including pomegranate groves near the wadi channel and olive groves and almonds on and around both WZ 135 and WZ 140.

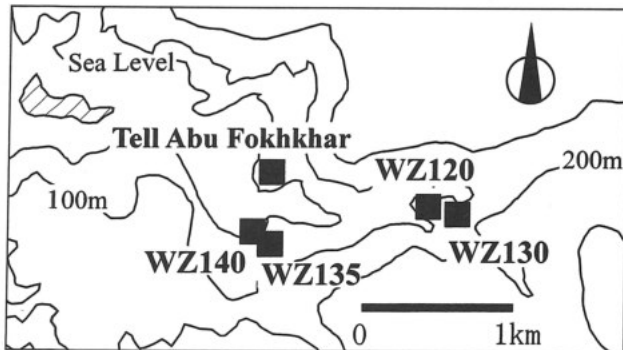
Methods

Excavations employed methods and recording system that the Wādī Ziqlāp Project has used for more than a decade. Excavation units were based on a nominal 3m x 3m grid, and provenience was based on the lithological characteristics of deposits and spatial extent within each unit. Excavators subdivided stratigraphic units vertically by ~5cm spits when there were no lithological grounds for changing locus. We collected numerous samples of sediment for pH, flotation, and micromorphological analysis, and screened all archaeological deposits below the plough zone. In most cases, this was 100% screening through a mesh with apertures approximately 3.5mm, but, for some sediments, like the plough zone, typically only 10% or 20% was screened, as indicated on field forms.

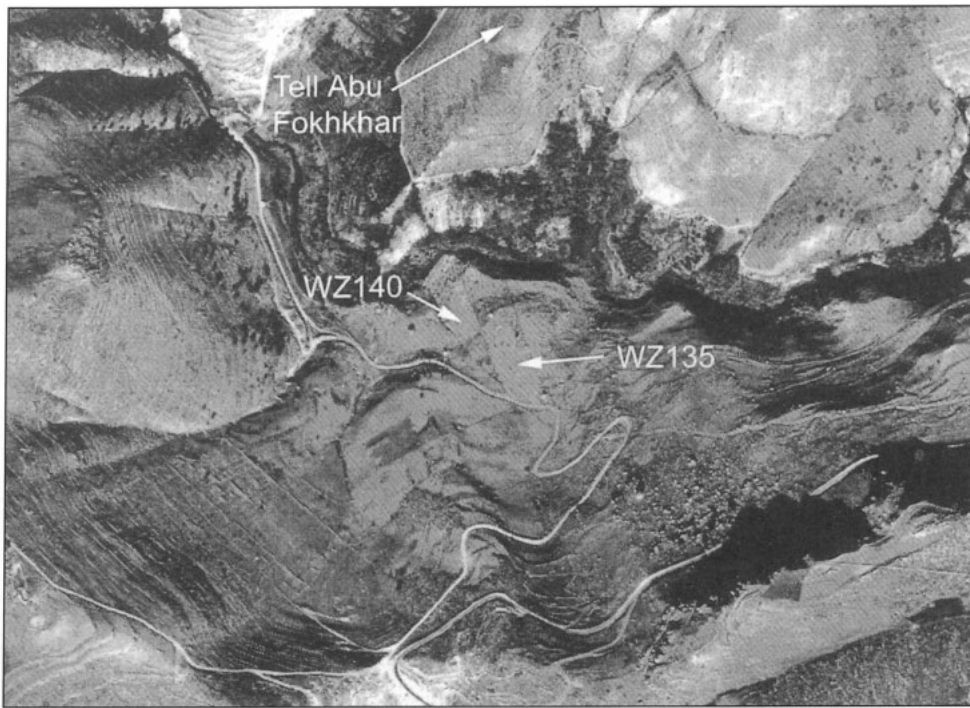
During excavation, we bagged approximately 750 liters of sediment for flotation. However, the results of flotation await analysis of the light and heavy fractions in Toronto. To date, the small number of samples that have been examined have yielded very little apart from small fragments of wood charcoal.

Excavation Plan and Stratigraphy

At the lower terrace, site WZ 140, most of the Neolithic material came from two deep soundings in Areas J15 and K15. These are low on the slope



1. Site distribution in the lower Wādī Ziqlāp.

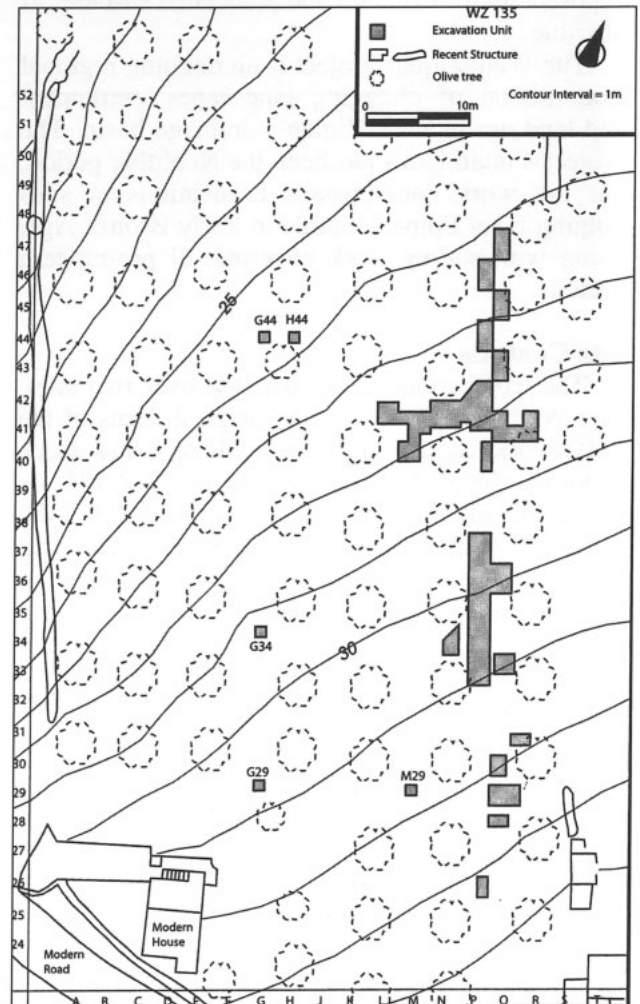


2. Aerial photo showing location of WZ135 and WZ140.

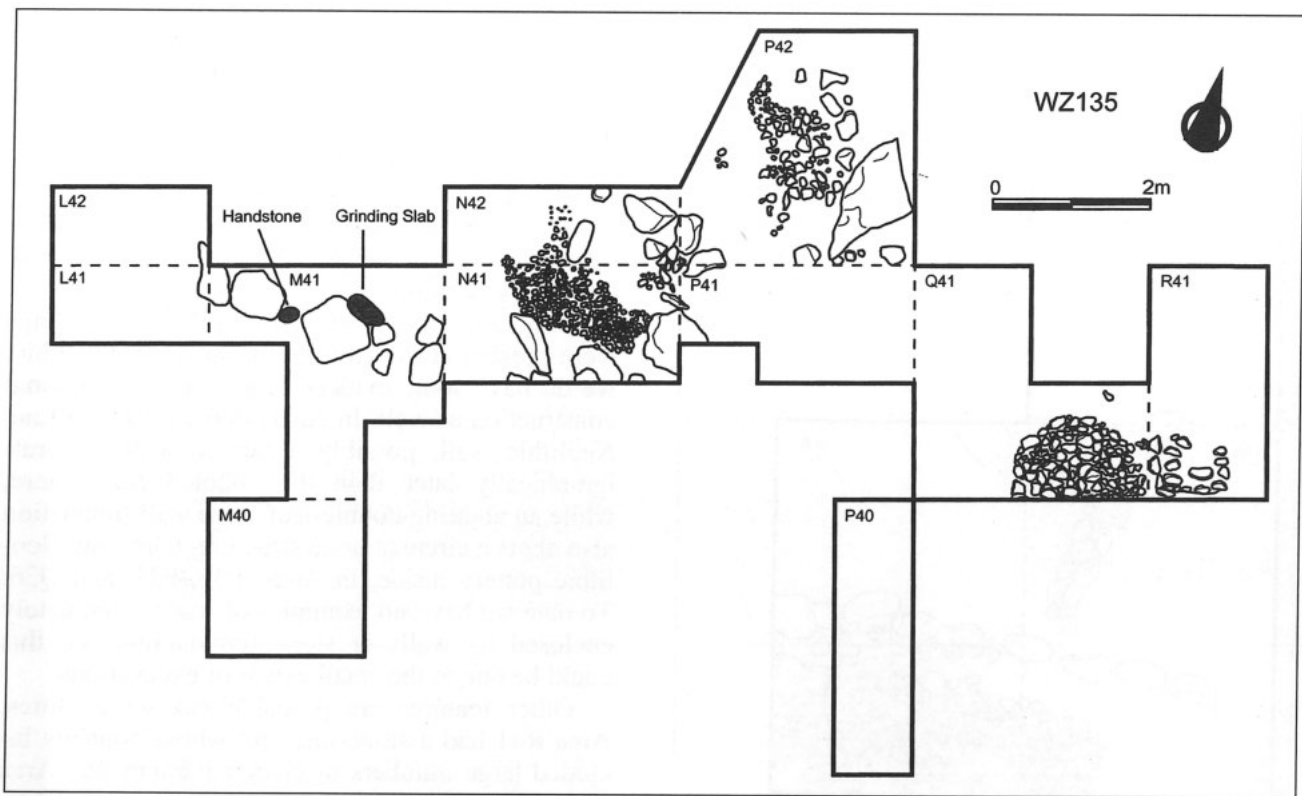
and the Areas closest to the test probe, G13 that produced a fair number of Neolithic artifacts in 2000. Most of the test units in WZ 140 produced Neolithic artifacts mixed with Epipalaeolithic or later artifacts in colluvium that probably derived from the upper terrace at WZ 135, or from an ancient extension of that terrace to the west, which erosion has now cut away. It is possible that the lower part of the slope, in the region of Areas G13, J15 and K15, has some *in situ* Neolithic deposits but if so, these are more than a metre deep and the probability of detecting undisturbed architecture without extensive excavation in this part of the site seems remote.

The most significant results of the 2002 season came from the most centrally placed excavation units in site WZ 135 (Figs. 3 and 4). Area M41 encountered two large, basalt grinding stones and many Neolithic artifacts, including adzes and sickle elements, but it and neighbouring L41, L42 and M40 appeared to be disturbed by ancient alluvial gullying that probably removed original Neolithic material and deposited other Neolithic artifacts from a short distance upslope along with alluvial gravels. Area N41, however, encountered a rectangular, cobble-paved floor, cut by a later pit at its northeast corner (Fig. 4), while Areas P41 and P40 uncovered several superimposed outdoor surfaces covered with Neolithic flakes, tools, sherds, and animal bone.

Excavations in 2004 began with new units in the vicinity of N41 and P41 and extending NNW:



3. Excavation units at WZ135.



4. Map of Late Neolithic architecture around Area N41 (Stratum I).

Areas Q41, P42, Q43, P44, Q45, P46, and Q47. Not surprisingly, units adjacent to those that yielded Neolithic surfaces had similar results. Area Q41 had a series of apparently outdoor surfaces and P42 had some of the surfaces, sloping downward over some bedrock.

The excavation units north of Q43, however, although containing some Neolithic material, exhibited signs of an ancient tributary wadi or gully, with substantial alluvial deposits in P44 in particular. They appeared to be off-site, and were closed on encountering culturally sterile deposits.

The excavators of the closed units moved to new ones upslope at R31, R41, Q28, Q29, Q30, Q31, N34, P33, Q33, Q36, P34, P35, P36, and P37. Area R41, like neighbouring Q41, yielded Late Neolithic surfaces and a stone-lined pit. Unit P36 and others later opened adjacent to it, contained Late Neolithic deposits and architecture (Fig. 5). Units farther upslope, however, showed evidence for later occupation.

It is now possible to identify two major strata at the site. Stratum I, found mainly in Areas near to and southeast of the main 2002 excavation units, contains features, architecture, and artifacts of the Late Neolithic. It appears to be the remains of a small, Late Neolithic farmstead with few buildings and artifacts that have parallels to Ṭabaqat al-Būma (WZ 200). Stratum II extends over an area

upslope and overlies Stratum I in Areas P33 and P35. It contains Early Bronze Age sherds, including some possible Esdraelon ware. In Areas Q29 and Q30, Stratum II includes a substantial, curved stone wall with associated surfaces.

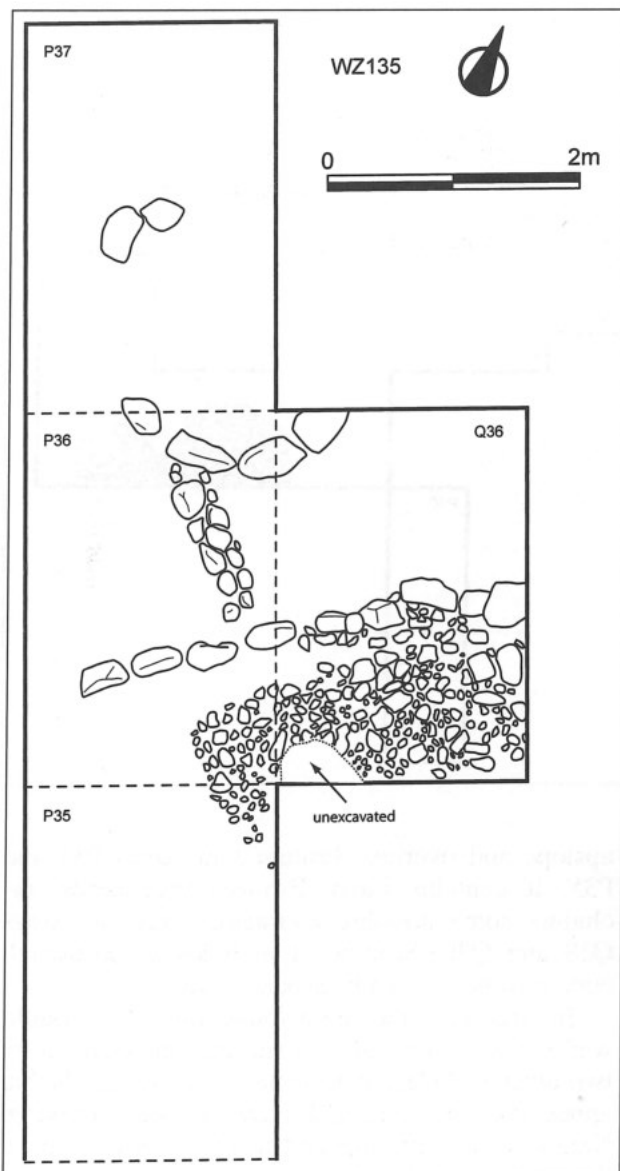
In Area P33, the stone foundation of a straight wall is associated with one surface, and covered by two other surfaces, that displayed many sherds that appear predominantly EB, many of them flat-lying. Neighbouring units opened in the attempt to trace the plan of the building, in Areas N34, P34, and Q33, yielded high densities of pottery, just as P33 did. A deeper sounding in part of P33 intercepted deposits containing Late Neolithic pottery.

Area P36 was highly disturbed by recent activity to considerable depth, but its deeper deposits contained parts of stone walls and fairly large amounts of Late Neolithic sherds and lithics, including denticulated sickle elements like those found frequently in Areas N42, N41, and P41. Additional units were opened in Areas P35, P37, and Q36 to expose more of the Neolithic deposits and architecture.

Stratum I

Stratum I deposits included remains of several buildings, cobbled surfaces, outdoor surfaces, and features.

Cobbled platforms or floors were a frequent fea-



5. Map of Late Neolithic architecture around Area P36 (Stratum I).

ture. The 2002 excavations revealed a cobbled floor in Area N41, with two rectilinear edges but no clear walls. A later pit cut through the northeast part of the floor.

Other cobbled surfaces, again without associated walls, appeared in Areas P41/Q41, P42, and P35/P36/Q36, suggesting that such features were common in the site's Late Neolithic phase (Fig. 6). These are similar in many respects to cobble floors in two structures from Late Neolithic Ṭabaqat al-Būma (WZ 200), except for the lack of enclosing walls. However, a cobbled platform that occurred in the final stratigraphic phase at Ṭabaqat al-Būma might be a close analogue.

At first we hypothesized that the walls had been simply robbed out, apart from some very large

stones — indeed this may be the case in Area N41/N42 — but in others it appears that the cobbled surfaces had no associated walls of brick or stone. This suggests the possibility that they were either outdoor features of some kind or, more probably, the floors of tents or other insubstantial structures, similar to those that Dunand (1973) reconstructs for the wall-less plaster floors at roughly contemporary Byblos.

Although it is possible that wall-less buildings were present at the site during the Late Neolithic, we do have some evidence for more conventional construction as well. In Areas P36 and Q36, a Late Neolithic wall, possibly a terrace wall, is stratigraphically later than the cobbled floor there, while an abutting double-leaf stone wall foundation also abuts a circular stone structure, with Late Neolithic pottery inside, in Areas P36, P37, and Q36. To date we have no examples of rooms completely enclosed by walls or stone foundations, but this could be due to the small extent of excavations.

Other features are probable storage facilities. Area R41 had a stone-lined pit whose contents included large numbers of charcoal fragments. Area P35, meanwhile, showed the remains of a pit or silo feature with thick, white clay lining, that extended a short way into Area P36 to the west of the cobbled floor (Fig. 7).

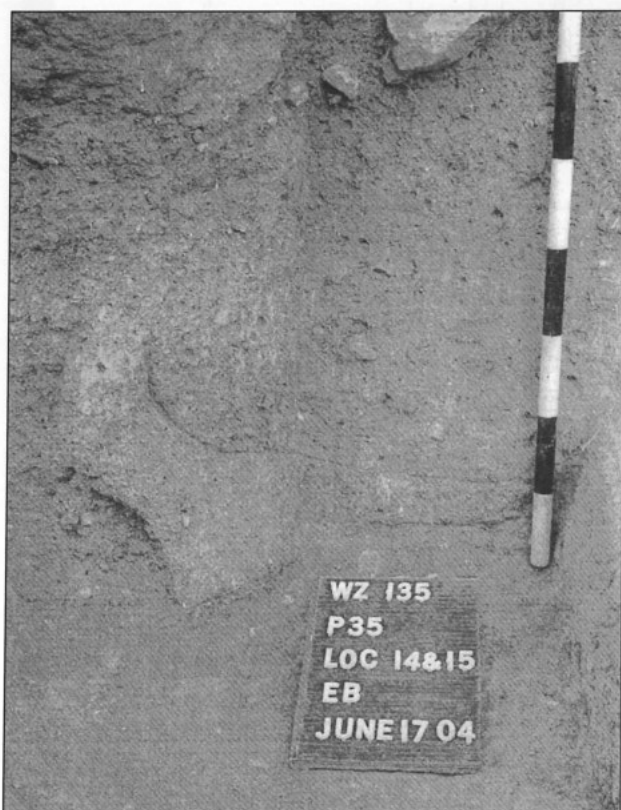
Stratum I is also notable for its well preserved, superimposed, outdoor surfaces. We piece-plotted artifacts and other debris on several such surfaces, principally in Areas P41 and Q41, and did extensive sampling for flotation and microrefuse from one surface in Areas Q41 and P42.

The chipped stone assemblage from Stratum I is characterized by several diagnostic Late Neolithic tool types (Fig. 8). These include sickle elements with denticulated edges, scrapers, denticulates, awls, axes/adzes/chisels, and bifacially flaked knives, in descending order of frequency.

Most sickle elements from the Late Neolithic contexts have a rectangular shape formed by steep retouch at one lateral edge and the truncation of both ends of blades or, more usually, rectangular flakes. The cutting edges of sickle elements have deep denticulations and often retain clear sickle sheen. The width of sickle elements varies considerably, but sickle elements from the same locus tend to be similar in size. For the most part, they conform to Gopher's type C or D, while some may constitute a new type, more blade-like than type D and not as steeply backed, but with more prominent denticulations than type C. A few artifacts from Areas P33, P41 and Q41 appear to be incomplete sickle elements; they are irregular blades with sev-



6. Late Neolithic stone platform in Area Q41 (Stratum I).



7. Mud plaster feature in Area P35.

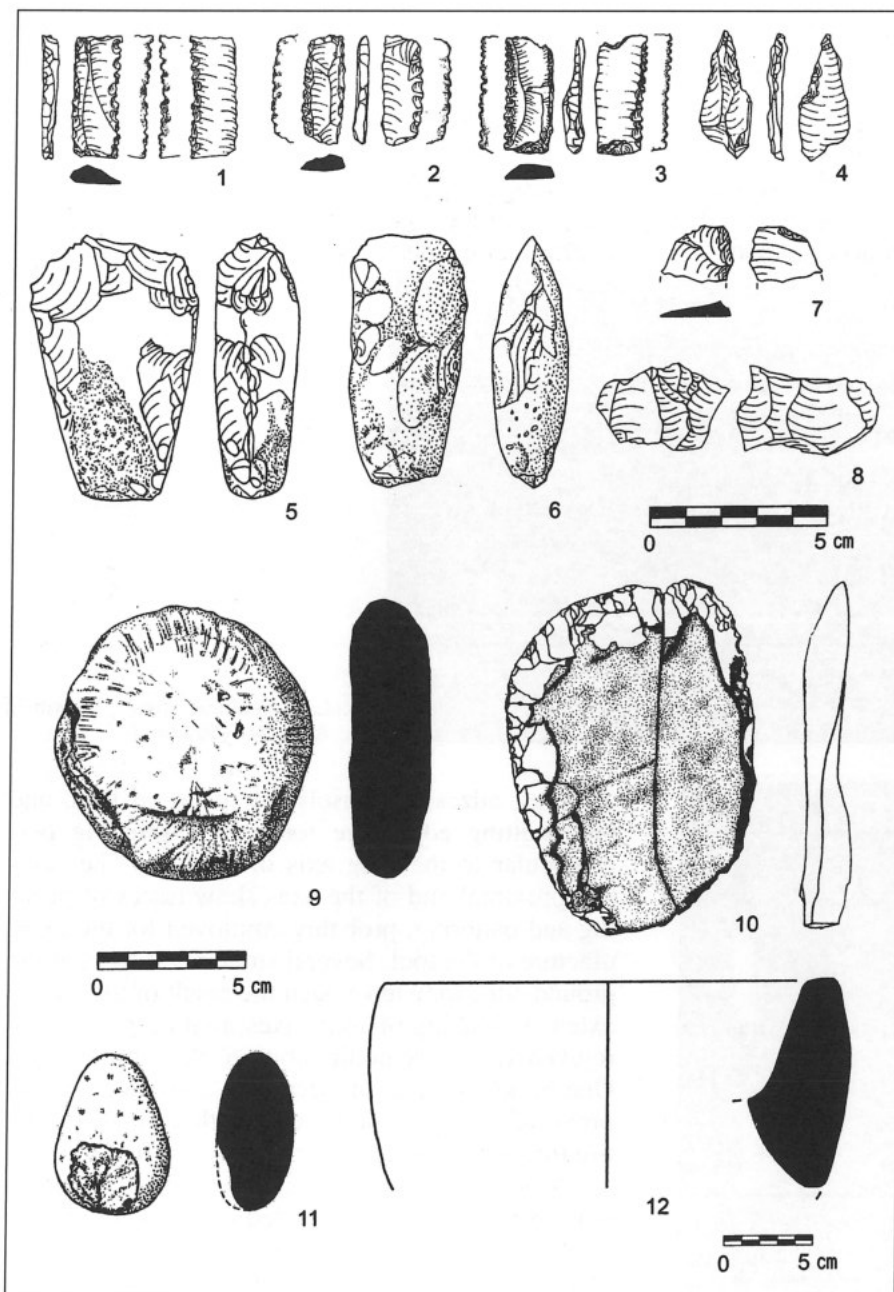
eral denticulations but no truncations or backing. If so, it suggests a surprising *chaîne opératoire*, with notching of denticulations before shaping of the blank.

Axes, adzes, or chisels are made on flint, and their cutting edges are formed by grinding perpendicular to the long axis of the tool. The sides and proximal end of the axes show traces of pecking and battering, probably employed for the manufacture of the tool. Several small flake scars at the ground edge may have been the result of use, while extensive flaking of some axes might represent the rejuvenation or remodification of the cutting edge. One broken tool from Area R41 appears to be the proximal end of a pick or adze that broke during use through a bending snap near the haft. The piece as found shows no use wear, which is consistent with its having been embedded in a socket or haft.

Awls are made on flakes except for one specimen from the 2002 field season that is a blade-awl with a dull point modified by rough retouch.

Two broken bifacial knives were recovered from the surface in both seasons. They have a very thin, lenticular section, and both surfaces are entirely covered with invasive retouch. Another bifacially flaked specimen from the 2002 season has a thicker lenticular section and a leaf-shaped plan form. One of the tips is dull and slightly ground, which may be the result of use or hafting.

Projectile points are very rare at the site. One possible transversal arrowhead from the 2002 season is very tiny but clearly has retouch on both sides that converges at the proximal end. The distal end is a cutting edge with some flaking scars that might be the result of use. One possible Nizzanim



8. Lithics from Stratum I at WZ135 and WZ140: 1-3 Denticulated sickle elements; 4 Borer; 5 and 6 Chipped and ground axes; 7 Obsidian flake; 8 Flake core; 9 Handstone. 10. Cortical scraper. 11. Pounder. 12. Limestone vessel. (1-9, 11, and 12 are from WZ 135. 10 is from WZ 140).

arrowhead was recovered in R41 in 2004. Its tip and base are formed by marginal retouch and it is similar to a point from Layer 2 at Munhata (Gopher 1989: fig. 37.14).

Debitage mainly consists of flakes, and cores are also dominated by flake cores, typically single-platform cores and change-of-orientation cores with multiple platforms. Few blades are present, but they are characterized by unidirectional scar pattern on the dorsal face and an absence of platform preparation. Several unipolar blade cores show that minimal core preparation was employed for blade production. The rare occurrence of trimming elements, such as core tablets or crested

blades, also supports this conclusion.

Primary and secondary elements of debitage indicate several sources of flint raw materials, from water-worn flint cobbles to flint nodules that probably come from one of the outcrops of chalk and limestone about 500m northwest of the site or from a nearby source in Wādī Abū-Ziyād. The last two sources provide fine-grained flint nodules of dark brown colour, closely similar to the most frequently used flint materials of the assemblage, and a number of rectangular flakes and a few blades are made on this flint. The rectangular flakes and blades appear to have been modified into sickle elements, while large, amorphous flakes made on

local flint of coarse to medium grain often show various types of retouch from small continuous retouch to rough denticulations, indicating that they were used for a variety of purposes, probably as expedient tools. In general, the raw material of this assemblage is of much better quality than that of the bulk of tools from Ṭabaqat al-Būma.

Ground-stone artifacts from Stratum I include a pierced limestone disk, which might be a spindle whorl, from Area P33, the polished bit of a broken adze, some small pestles and broken hand stones, broken stone vessels, and, from the 2002 field season, one set of upper and lower milling stones found in Area M41 (Fig. 4). Most of these are of basalt, which would have been imported to the site, probably from the area east of Tall ash-Shūna North.

The Late Neolithic pottery is all handmade, and there is some evidence for coil construction. The fabrics are usually soft, grey-brown, dark grey, yellow or salmon-pink in colour, with poorly sorted angular inclusions of chert and limestone, and rounded argillaceous nodules. Many sherds show voids and clear evidence for fibrous temper, even though grit temper is more common. Some sherds appear not to have any intentional temper at all, but instead networks of fine internal cracks. Many others have dark or yellow cores and other evidence for poor firing. On some sherds, crazing or laminar spalling is evident. Although there are some better-made exceptions, in general, the pottery is rather crudely constructed and poorly fired, and is now so fragile that washing it is risky. Many of the fabrics, especially the salmon-coloured one, seem very similar to those found at Ṭabaqat al-Būma (WZ 200), although others differ.

The assemblage is very fragmented, but forms appear to include small cups and bowls, and small jars (Fig. 9). A few larger, thicker pieces, could be *ṭābūn* fragments, and some sherds are apparently from large jars. Bases are mainly flat or disk bases with a V-shaped profile. One base from WZ135 and another from WZ 140 show pebble impressions on the bottom, similar to examples from 'Ayn Raḥūb (Kafafi 1989) and the Wādī Rabāḥ stage at Munhata (Garfinkel 1992: fig. 132.5). These have not been found at Ṭabaqat al-Būma. Handles include loop handles with oval sections and some knobs and slight ledge handles, including one example of an interior ledge handle.

A rare but regularly occurring surface treatment is combing. Most often, this is a very rough combing, apparently to roughen the surface rather than to create a particular pattern. Some sherds show such roughening on both interior and exterior sur-

faces. Others show criss-cross combing, a pattern evocative of basketry and usually thought typical of Wādī Rabāḥ assemblages. This is one of the most common decorative treatments at Ṭabaqat al-Būma and WZ 310 (Banning *et al.* 1994, 1996), but is more rarer at al-Basātin.

Other decorative and surface treatments at al-Basātin include dentate-like rows of short incisions made with a comb. A small proportion of sherds show traces of red slip or paint. Still more rarer surface treatments include slipping and burnishing ("dark-faced burnished ware").

The excavations in both seasons recovered fragments of pierced ceramic disks, probably made from body sherds, with a biconically drilled hole (Fig. 10: 2 and 3). This is similar to several examples that occurred at Ṭabaqat al-Būma and WZ 310. These possibly served as spindle whorls.

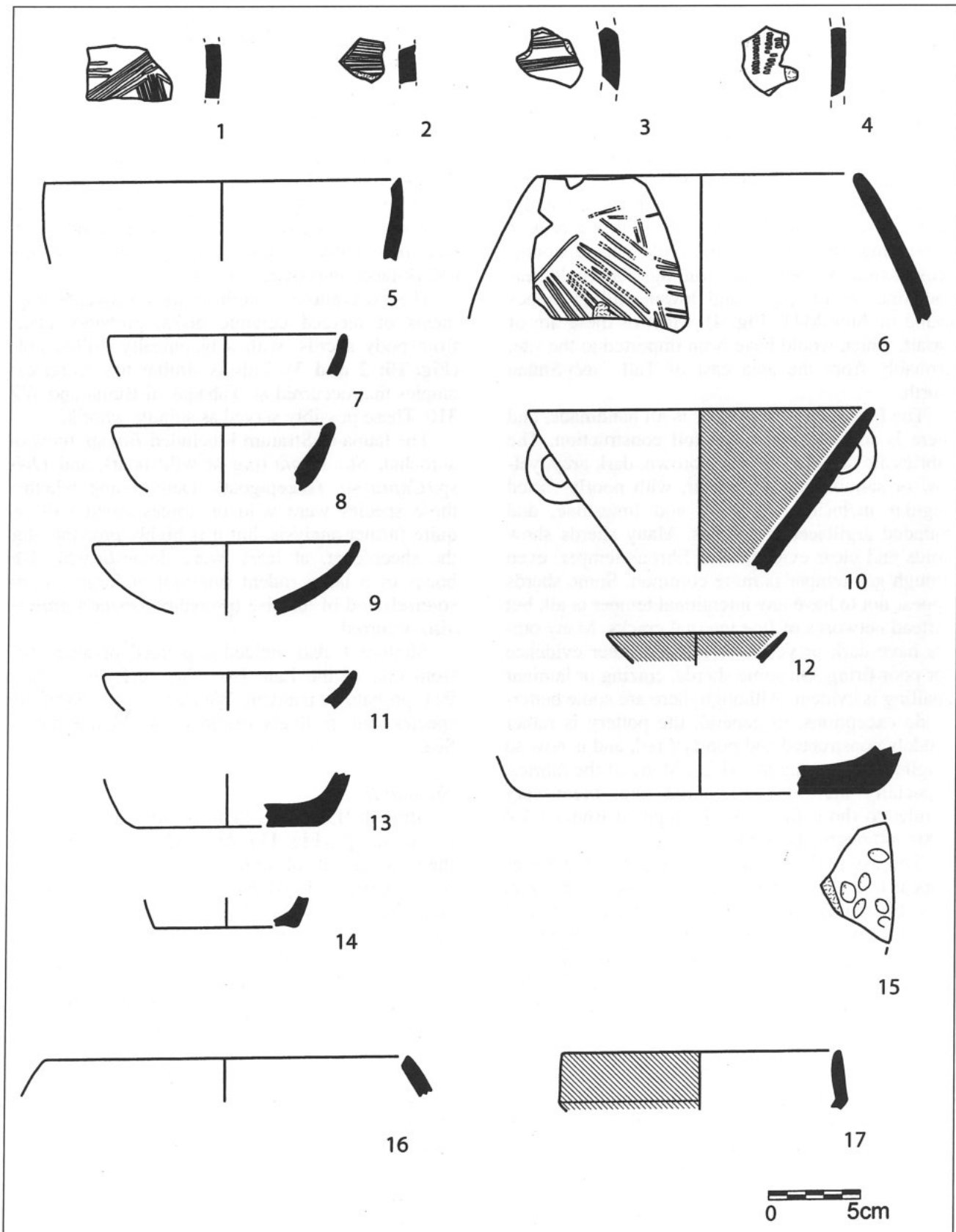
The fauna of Stratum I included *Bos* sp. (cow or aurochs), *Sus scrofa* (pig or wild boar), and *Ovis* sp./*Capra* sp. (sheep/goat). Determining whether these species were wild or domesticated will require further analysis, but it is highly probable that the sheep/goat, at least, were domesticated. The bones of a large rodent (marmot or large ground squirrel) and of tortoise (probably *Testudo graeca*) also occurred.

Stratum I also yielded a pierced bivalve shell from one of the Late Neolithic surfaces in Area P41, probably a pendant. We have yet to identify its species, but its likely origin is the Mediterranean Sea.

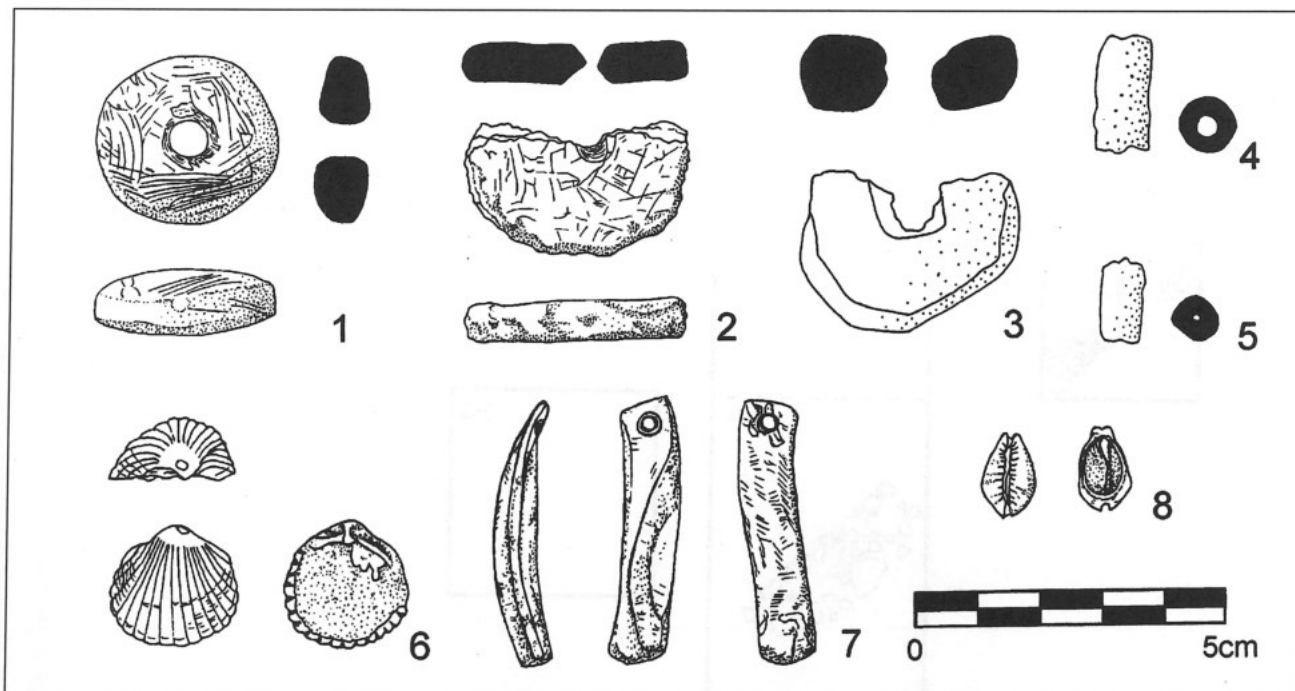
Stratum II

Stratum II deposits included remains of at least two buildings (Fig. 11). Areas Q29 and Q30, show the curving wall of a building that appears to have been constructed and used during the Early Bronze Age. This wall was not as well preserved in Q30, where it was closer to the surface and only preserved to the height of one course. In Q29, however, it reaches three courses in height and the curve begins to straighten out to the east, suggesting that this is the apsidal end of a long building oriented nearly parallel to the E-W line of our grid. A small stone feature was built against the inside of the south wall, and a hand stone and several flat-lying sherds occurred on a surface that appears to be associated with the bottom of the wall, and overlies the surface that goes under the wall. This building seems rather similar to apsidal buildings at such Early Bronze Age sites as Yiftahel and Tall Teo (Eisenberg *et al.* 2001: plan 3.9; Braun 1997: fig. 5.2).

Areas N33 and P33 exhibit the rectilinear stone



9. Pottery from Stratum I at WZ135 and WZ140. From WZ135: 1-4 combed and incised body sherds; 5, 7-9 bowls; 6 holemouth jar with incised decoration; 10-11 red slipped bowls; 13-14 bases; 15 pebble impressed base. From WZ140: 16 holemouth jar; 17 carinated bowl.



10. Small finds from Strata I and II at WZ 135: 1 and 2 Pierced stone discs from Stratum I; 3 Pierced ceramic disk from Stratum I; 4 and 5 Cylindrical fossils with natural longitudinal holes from Stratum III; 6 Pierced bivalve shell from Stratum I; 7 Shell ornament from Stratum III, 8 Sawn cowry shell from Stratum II.

foundation of what was probably a mud-brick structure, as fragments of mud brick occurred on a surface immediately down slope. This is a double-leaf, rubble-filled foundation, only one course in height. Further excavation in P34 and Q33 failed to find other walls of this building, although both uncovered surfaces with flat-lying pottery.

The chipped stone assemblage from Stratum II is characterized by two diagnostic tool types: cortical scrapers and regularly shaped sickle blades (Fig. 12). Two cortical scrapers or knives were recovered in P36 and P37 above the Neolithic deposits. Both are made on fairly flat, cortical flakes and show flat to semi-steep retouch on their sides (Fig. 12: 3 and 4). The sickle blades are made on very regular blades with a trapezoidal cross-section. The regular blades usually have a faceted striking platform and a wide flaking angle, indicating a specialized production technique, similar to Canaanite blade production (Rosen 1999).

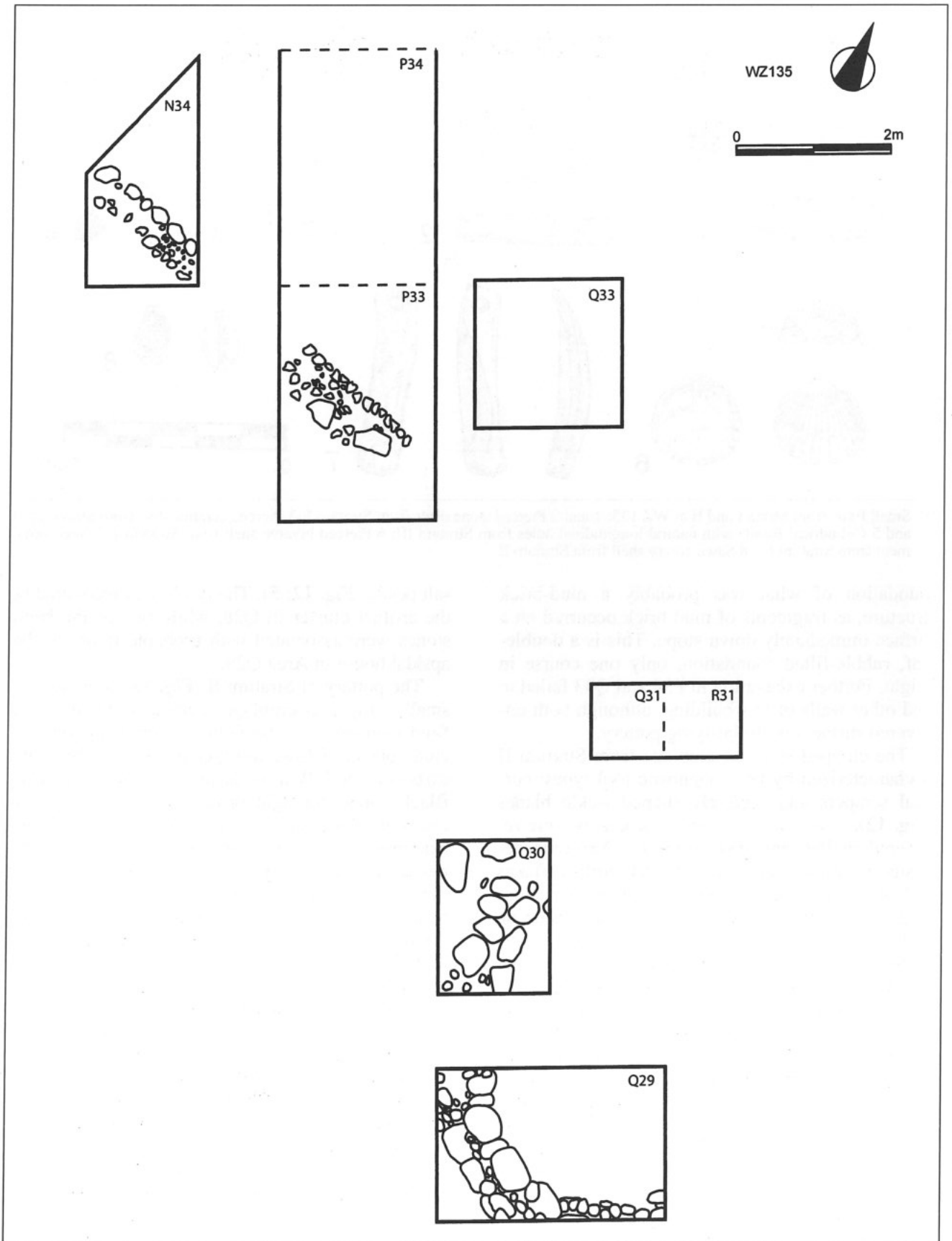
These special blades were used as sickle elements with minor modification by snapping or truncation (Fig. 12: 1). Another type of sickle element is a long sickle blade with a finely denticulated edge (Fig. 12: 2), which occurred in a cluster of artifacts in Area Q28, appearing somewhat similar to sickle elements from such sites as Tulaylāt al-Ghasūl (Gopher's type E).

A small number of ground stone artifacts from Stratum II include several hand stones and one ba-

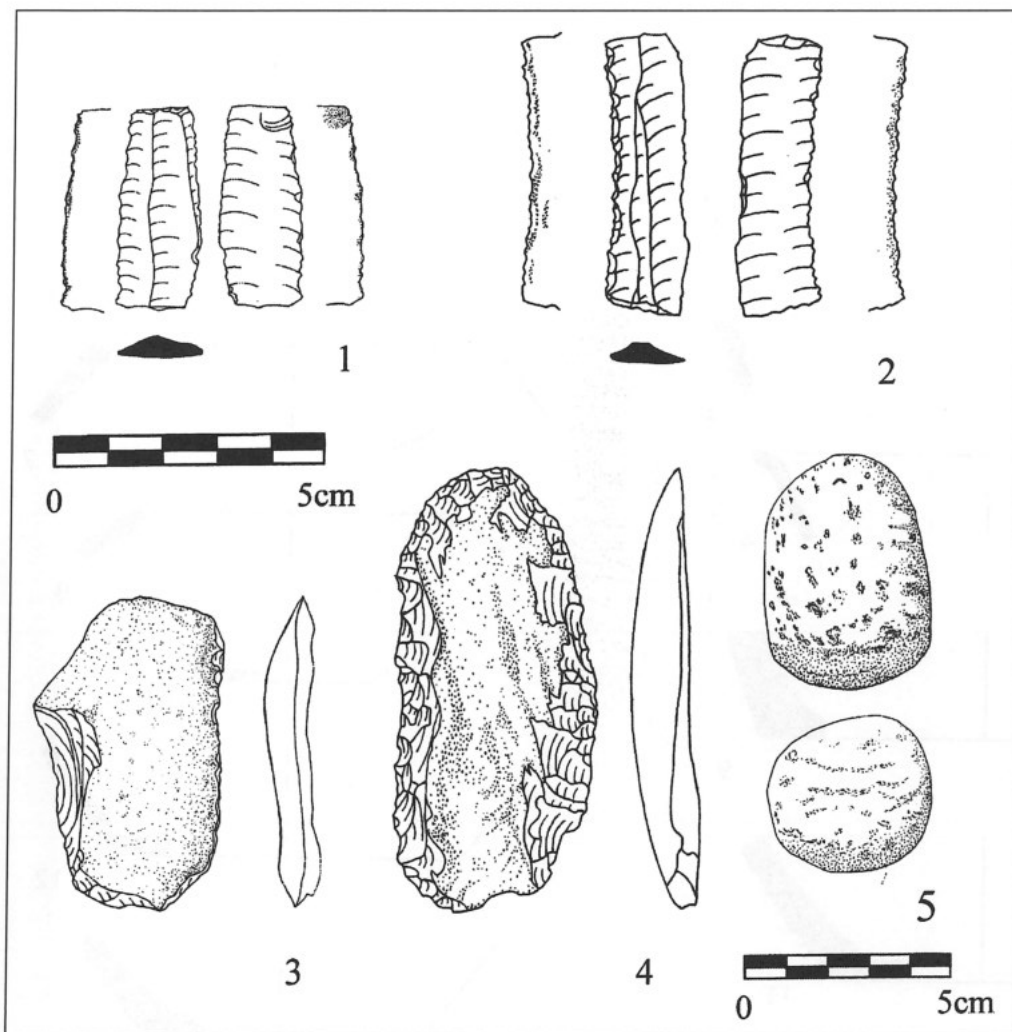
salt pestle (Fig. 12: 5). The pestle was recovered in the artifact cluster in Q28, while two of the hand stones were associated with probable floors of the apsidal house in Area Q29.

The pottery of Stratum II (Fig. 13) constitutes a small, simple assemblage, generally much better fired than the Late Neolithic material. Fabrics include black, yellow, and greenish-grey, often with carbonate and flint inclusions of moderate size. Black cores and light brown or red surfaces are common. There are instances of red slip, and rare examples of red paint, but as yet we have found no painted patterns. Only a single, small body sherd of "grainwash" was found, distinguishing this site from Early Bronze components at nearby Tall Rākān (WZ 120 and WZ 130), where this was a common surface treatment.

Simple holemouth rims are common, and occasionally show a row of oblique impressions about 2cm below the rim. Holemouths slightly everted at the rim also appear to be fairly common. Other holemouth rims are thickened symmetrically or externally, the latter with regular impressions on the thickening. Everted and carinated bowls and a jar with a somewhat swollen neck are also found. Bases are generally thin disk bases with a V-shaped profile and the walls are prominently thickened toward the base. Handles include broad loop handles, and very shallow ledge handles or lugs, in one case on the carination of a bowl. Smaller loop handles



11. Early Bronze Age architecture from WZ135 (Stratum II).



12. Lithics from Stratum II at WZ 135: 1 and 2 Sickle elements made on regular blades; 3 and 4 Cortical scrapers; 5 Basalt pestle.

may come from juglets.

Stratum II deposits, especially in Areas Q29 and Q30, yielded an unusually large number of what appear to be truncated shafts of bird bones, along with fairly large numbers of cylindrical fossils with naturally-occurring longitudinal holes (Fig. 10: 4 and 5). This suggests the possibility that these had served as beads, perhaps all from the same necklace or some other item of apparel. Although the fossils, in particular, are not artefactual, it seems statistically unlikely that they would occur in such a high density, while they are rare elsewhere on the site, or in association with the truncated bird bones, unless they and the bird bones were used together. A sawn cowry shell from Area P33 (Fig. 10: 8) probably comes from decorated clothing and suggests connections as far as the Red Sea in this period.

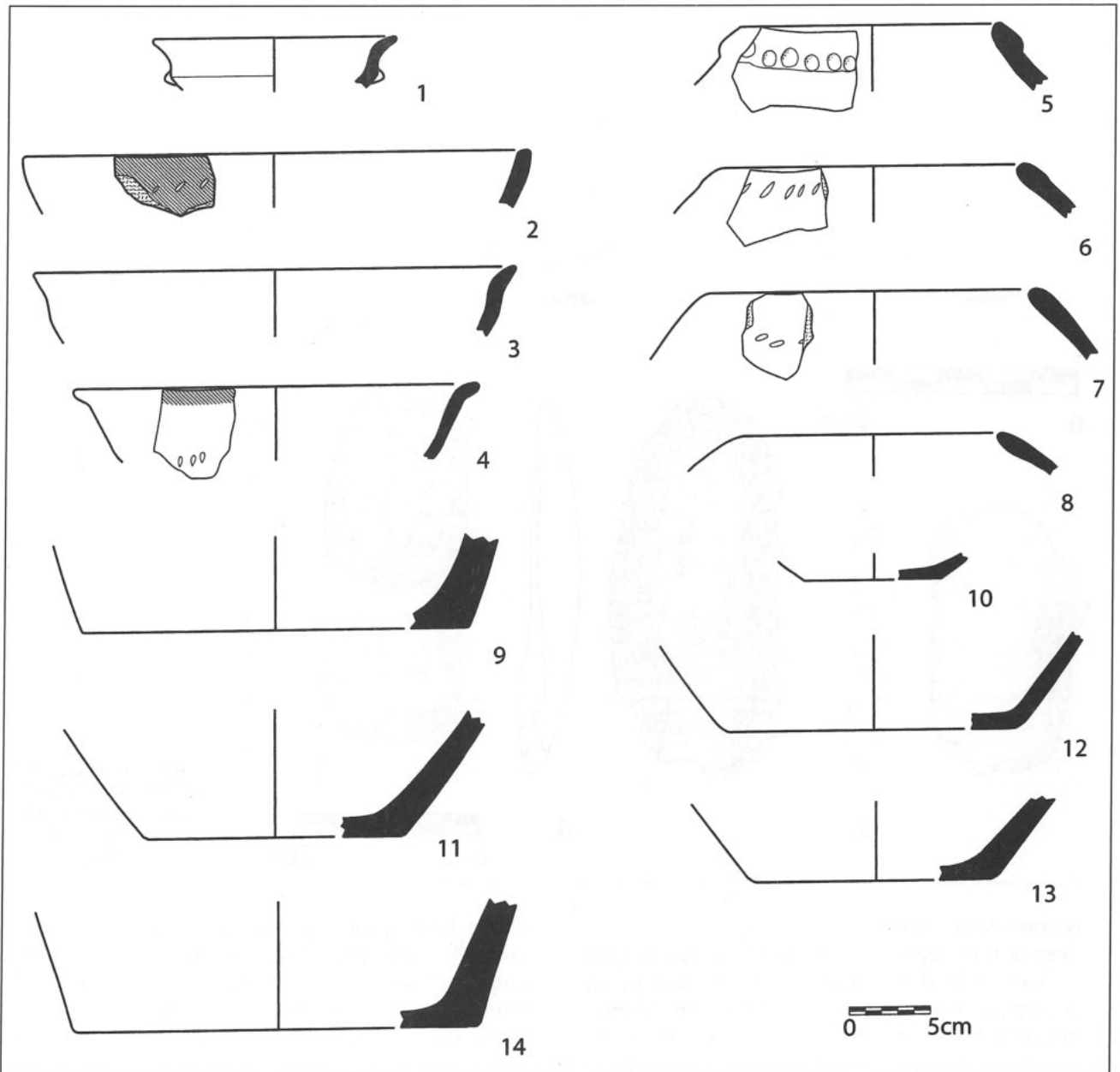
Stratum III

The plough zone overlying the other deposits contains a mixture of artifacts of various periods,

while later, probably Byzantine-era, field walls crossed Areas P41, Q41 and M40, and possibly employed stones robbed out of earlier Neolithic structures. The landowner says that he removed many large stones and outcropping walls by bulldozer when preparing his olive grove about 20 years ago. Aerial photographs of 1978 show traces of what appear to be walls and stone hut structures near the site, probably the features that the bulldozer removed, but these probably were of more recent date than the Neolithic.

Residual Material

Residual artifacts in various deposits, including surface finds, provide evidence for some Epipalaeolithic and Pre-Pottery Neolithic activity in the vicinity of the site. Of the chipped stone materials belonging to earlier periods, the majority consists of Epipalaeolithic artifacts, including re-touched and unretouched bladelets and bladelet cores. The raw material of these Epipalaeolithic artifacts is almost uniformly the finely grained brown



13. Pottery from Stratum II at WZ135: 1-4 bowls; 5-7 holemouth jars with impressed decoration; 8 undecorated holemouth jar; 9-14 bases.

material.

There is also some indication of PPNB occupation on the terrace or nearby. One Amuq point found in 2002 is made on pink flint. The 2004 excavations also uncovered retouched pieces that look like the bases of Amuq points. An exhausted naviform core and a flaked adze also occurred on the surface near the modern road. Furthermore, the fragment of a limestone bracelet of PPNB type occurred on a Late Neolithic surface in Area Q41.

WZ 140

The chipped-stone assemblage of WZ 140 in-

cludes very few diagnostic tool types. These consist of one Levallois flake core, several Epipalaeolithic bladelet cores, one Late Neolithic sickle element with a denticulated edge (not including those found in 2000), and one cortical scraper.

The Levallois flake core was found in the topsoil, and has a heavily patinated surface that does not occur on other chipped-stone artifacts from this site. The Epipalaeolithic artifacts are also distinct from the majority of the assemblage in the use of fine-grained flint cobbles as raw material. Thus, it is likely that the assemblage of WZ 140 consists mainly of the Late Neolithic artifacts, as repre-

sented by sickle elements and cortical scraper, while the early material is residual and probably re-deposited from some (perhaps destroyed) location upslope.

The sickle element recovered during the 2002 season is missing one end, but its rectangular shape is formed by steep retouch on one end and one lateral edge. Its cutting edge shows small denticulations and has a clear sheen.

Unlike typical Chalcolithic tabular scrapers, the cortical scraper is made on a large cortical flake of dark brown, fine-grained flint. The entire dorsal surface is covered by limestone cortex, and the tool edge shows flat retouch. It is generally similar to cortical scrapers found at Ṭabaqat al-Būma (WZ 200).

A number of flakes show various types of retouch, and some of them are classified as scrapers or denticulates. The abundance of retouched tools made on flakes seems to characterize this assemblage, much as in site WZ 135.

Debitage consists mainly of small flakes and chips made on various types of flint. It rarely includes primary elements or large flakes, and flint types are more diverse than in the WZ 135 assemblage. If, however, we consider the colluvial characteristics of the deposits at WZ 140, these traits could largely be the result of natural depositional processes.

The limited pottery assemblage from WZ140 is similar to the Late Neolithic material from WZ135. Fabrics are grey-brown, yellow, or salmon-pink in colour. Red slip and combing are the most common surface treatment. Much of the pottery is very fragmented and it is often difficult to identify forms with certainty, but bowls and holemouth jars seem to be the most common forms. A reddish yellow carinated bowl with a red slip on the exterior is a notable specimen. A couple of strap handles were recovered.

WZ 140 also yielded the remains of *Bos* sp., *Sus* sp., and *Ovis* sp./*Capra* sp., in addition to the bones of *Cervus* sp. (deer) and *Gazella* sp. (gazelle). Faunal remains were not very well preserved at the site, and the sample size is small.

Chronology

Although we have yet to obtain radiocarbon results from the samples we have submitted from al-Basātīn, comparisons with the rather well-dated assemblages from Ṭabaqat al-Būma help us to propose likely dates for al-Basātīn's Late Neolithic occupation. The posterior probabilities that result from a Bayesian analysis of the radiocarbon determinations from the second, third, and fourth

Late Neolithic phases at Ṭabaqat al-Būma strongly suggest dates of about 5550, 5400, and 5200 cal BC, respectively (Banning n.d.; Blackham 2002: 74-76). Although analysis of the Late Neolithic artifacts from al-Basātīn is still in its preliminary stages, they show strong affinities to those of these phases at Ṭabaqat al-Būma.

Similarly, we as yet lack carbon dates on Stratum II at al-Basātīn, but this assemblage appears to belong to an early phase of the Early Bronze Age, as suggested by a large, simple ledge handle and some thickened holemouth rims. The sample of pottery does not appear similar to the Late Chalcolithic material from Tall Findī (WZ 126; Blackham *et al.* 1998) or earlier Chalcolithic pottery from Tubna (WZ 121), which the Wādī Zīqlāb Project excavated in 1995 (Banning *et al.* 1998). Yet it also differs in most respects from Early Bronze pottery (conventionally EB IB) from such nearby sites as Tall Rākān. Only a single grain-washed sherd occurred, however, quite unlike the situation at Tall Rākān, where a high percentage of the Early Bronze pottery had this surface treatment. Although the fairly small sample size is an issue, this dearth of grainwash surface treatment makes it unlikely that the stratum belongs to EB IB or EBII. Two sherds of carinated bowls, somewhat similar in form, but not fabric, to Esdraelon ware, and relatively frequent application of small, diagonal incisions below holemouth rims might indicate a date quite early in EB I. In the near future, we hope to have radiocarbon dates on olive pits from Stratum II to clarify its date.

Preliminary Conclusions

The 2002 and 2004 field seasons of the Wādī Zīqlāb Project made several important steps forward. The excavations at WZ 135 began to pin down the location of preserved occupation traces on the terrace, including well-preserved cobble floors and outdoor surfaces with dense Neolithic debris, part of at least one Late Neolithic structure, and some stone — or clay — lined pit features. Meanwhile, comparison of the assemblage with that of Ṭabaqat al-Būma and other near-contemporary sites is contributing to our understanding of social and economic interaction in Wādī Zīqlāb specifically and in the region of the northern Jordan Valley more generally.

These results lend support to the hypothesis (Banning 2001) that the Late Neolithic in this region had a dispersed settlement system, perhaps dendritic in structure, with small villages and farmsteads scattered along the length of wadis and their tributaries. Relatively high frequencies of pottery

that we would expect to find in social contexts — vessels for cooking and serving food and beverages — point strongly to the likelihood that the inhabitants of these small settlements maintained larger social networks through visiting and entertaining. Such social networks would be advantageous to spread economic risk, provide marriage partners and access to exotic goods, and maintain security. It is also likely, given the current dearth of evidence, such as figurines, for ritual activity in the farmsteads, that some ceremonial gatherings at larger villages helped to integrate dispersed communities and focus their ideological beliefs. Interestingly, similarity in form but dissimilarity in *chaîne opératoire* of sickle elements from al-Basātin and Ṭabaqat al-Būma suggest that inhabitants of these sites may have interacted during the use, but probably not during the manufacture, of these tools (Kadowaki n.d.).

In addition, we begin to get a clearer picture of lifeways at small farms in the under-studied Late Neolithic while also new evidence for changes in rural lifeways during the Chalcolithic and Early Bronze I. Both Ṭabaqat al-Būma (WZ 200) and al-Basātin (WZ 135) provide evidence for the organization of rural households and for the adaptation of technology to local needs and raw materials in the Late Neolithic. al-Basātin also contributes to our understanding of the Chalcolithic expansion into the hill country east of the Jordan Valley, and the associated establishment of a rural economy based on olive culture.

Importantly, the site will also contribute to the continuing discussions on the chronological, terminological, and typological confusion that continues to hinder our understanding of the important period from about 6000 to 4500 cal BC.

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