

LITHIC ARTIFACTS FROM LEVEL 6 OF TELL DER HALL, ESKI-MOSUL (IRAQ): A PRELIMINARY REPORT

Katsuhiko OHNUMA* and Ken MATSUMOTO*

Introduction

The archaeological site of Tell Der Hall (36° 30' N, 42° 45' E) is located some 40 km N-N-W of the city of Mosul, northern Iraq (Fig. 1). It was situated on the edge of the projected left bank of the meandering area of the river Tigris (Fig. 2). The modern village of Der Hall, composed of some 20 houses, existed around the site. The site itself measured 20×30 m and was 3.5 m high from the surrounding plain. The top of the site, about 270 m above sea level, is 10 m high from the river of Tigris (Pl. 24-a).

When we started the archaeological works at the site, its northern and western sides had been artificially cut to a considerable degree, and modern houses were standing on its southern side as well as two houses abandoned several years before on its top.

There is a range of low hills nearby which bear pebbles, and the village people cultivated wheat, watermelon, tomato, eggplant, okra, etc., and fed cattle, sheep, and goat in small quantities on these hills and the river bank. The village people were also engaged in collecting pebbles and gravel for buildings from the river bank using machines.

This site was paid attention in 1983 by Matsumoto of the first Japanese Archaeological Expedition to Eski-Mosul from Kokushikan University headed by Professor Hideo Fujii. The actual sounding at the site was commenced in November 1983 by one of the parties of the expedition, composed of Mr. Ken Matsumoto, Mrs. Kazumi Oguchi, and Mr. Hirotohi Numoto, and was continued until January 1984 as a part of the Saddam Dam Basin Salvage Project of the State Organization of Antiquities and Heritage, the Ministry of Culture and Information, the Republic of Iraq.

Because of a limited time of work, we could not conduct such excavations as to reveal a complete structural remain at Tell Der Hall, and ended the works after soundings alone.

The lithic artifacts uncovered from Levels 5 and 6 of this site have been studied by Ohnuma, who did not join the soundings, with the aid of the staff members of the party. All of the lithic artifacts unearthed are now stored in the Iraq Museum, Baghdad.

Stratigraphy

The soundings at the site were conducted at several squares, each of which was 5×5 m in size and was named with the combinations of Roman numerals (I to IX) running in the north to south direction and Arabic numerals (1 to 7) running in the west to east direction.

The archaeological levels confirmed at these squares amounted to six, and were named Levels 1 to 6 from the top downwards (Fig. 3; Pl. 24-b).

Level 1 (Islamic period): It is believed that the top of the site was cut, filled and modified to a considerable degree when the two abandoned houses were built. Level 1 also yielded four graves at Square VII-6 and two graves at Square VII-7. The graves were found to have been dug down to 20 to 90 cm below the surface of the site. Most of the graves were dug in the east to west direction, with heads of

* The Institute for Cultural Studies of Ancient Iraq, Kokushikan University, Tokyo

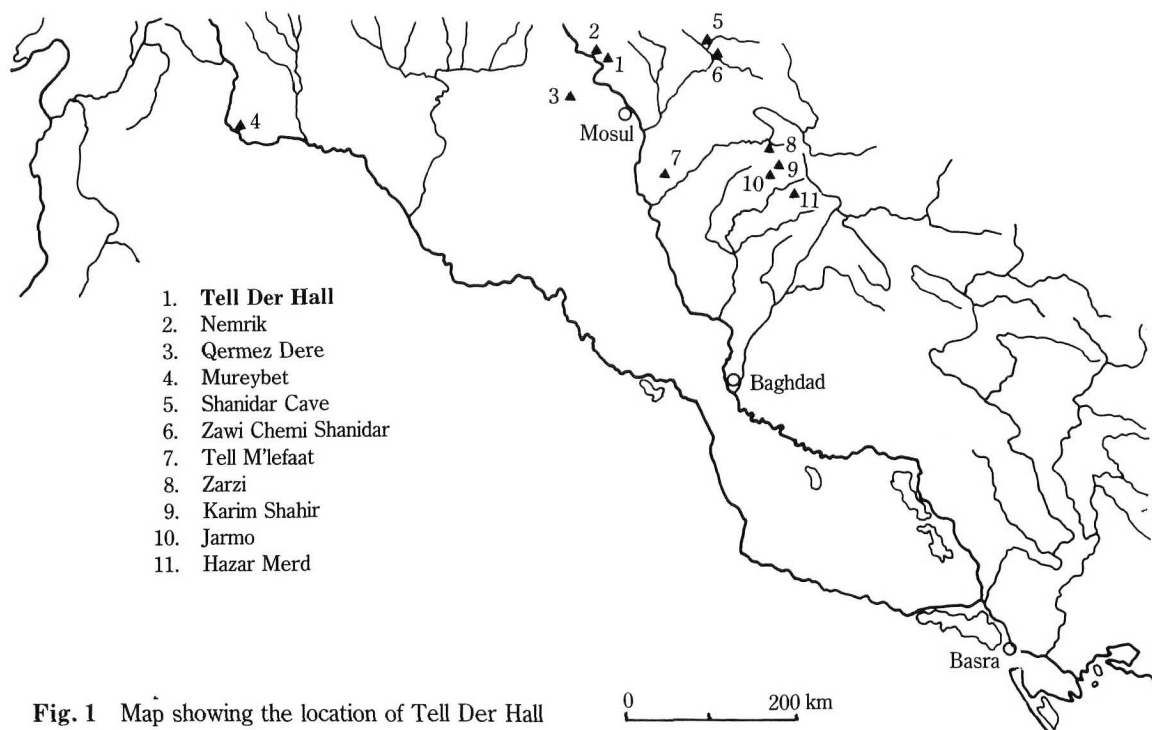


Fig. 1 Map showing the location of Tell Der Hall

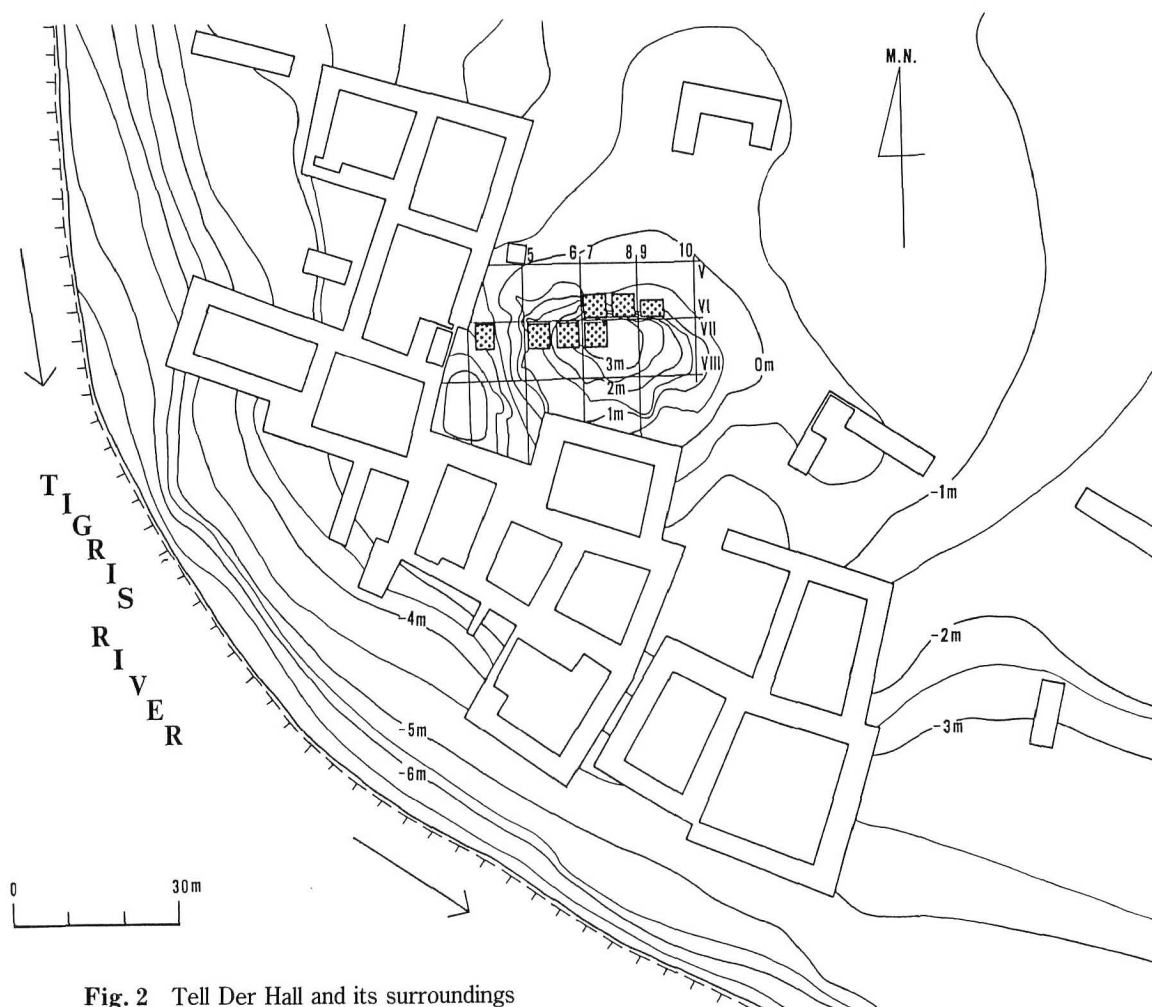


Fig. 2 Tell Der Hall and its surroundings

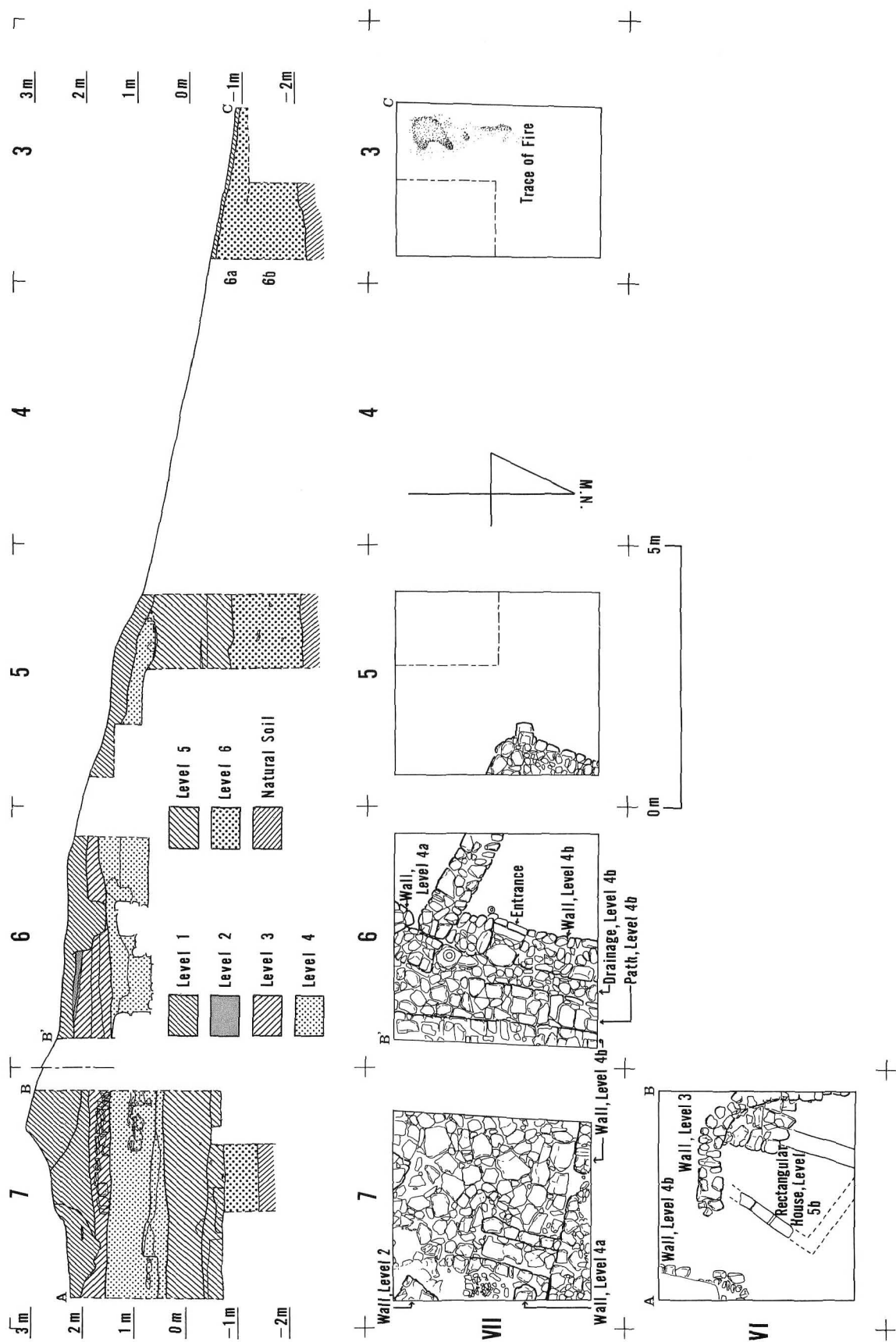


Fig. 3 Plans and sections of Tell Der Hall

the buried directed to the west and the faces to the south. These graves accompanied no burial goods, and their human skeletons were preserved very well.

Level 2 (Middle 2nd Millennium B.C.): A part of a wall made of piled stone blocks was confirmed in this level at Square VII-7, and fragments of Nuzi ware were found on the floor associated with the stone wall at Squares VII-6 and VII-7. The thickness of the level, however, is only 30 to 50 cm, suggesting with smallness of pottery quantity a short period of inhabitation.

Level 3 (Early 2nd Millennium B.C.): A stone-piled wall was confirmed at Square VI-7. The wall measured 30 cm in height and 40 cm in width. Judging from the rounded corner of the stone-piled wall, it seems that a building of the stone-piled walls was either square or circular in plan. Fragments of Khabur ware were found on the floor associated with the wall.

Level 4: This level is subdivided into 4a, 4b, 4c, and 4d. Judging from the mixture of fragments of Khabur ware, "Middle Gawra" period pottery, and Halaf pottery in Level 4d, it seems highly likely that Level 4 was the filling for arranging basements of houses. This filling of earth and potsherds was very clear at Square VI-8, where it measured 80 cm in the thickest section. It appears most probable that the repairing of houses was conducted three times at least, with each time of repairing corresponding to Level 4c, 4b, and 4a.

Level 5 (Halaf period): At Square VI-8, a part of the wall of a Thoros-like structure and a probable pavement of river pebbles were found. At Square VI-7, the remain of a house, probably square in shape, was found. The wall of the former structure was made of two kinds of mud-bricks measuring $53 \times 23 \times 12$ cm and $25 \times 23 \times 12$ cm, whereas the wall of the latter was made of mud-bricks measuring $25 \times 25 \times 12$ cm. At Square VII-5, there was found an earthen floor, brownish-red in colour. It was confirmed that these structural remains were accompanied by lithic artifacts, made on flint and obsidian, and fragments of Halaf pottery.

Level 6: This is a level without pottery, and was confirmed at Squares VI-7 (1.5×1.5 m), VI-8 (1.5×1.5 m), VII-3 (2×1.5 m), and VII-5 (2×1.5 m). Except at Square VII-3, Level 6 was immediately overlain by the bottom of Level 5. There were traces of modern cutting around Square VII-3, thereby exposing this level on the surface of the site there. Level 6 at Squares VI-7 and VI-8 is brown in colour, about 50 cm in thickness, and yielded fewer lithic artifacts and fragments of animal bone than in Level 6 at Squares VII-3 and VII-5, which is dark-brown in colour, more than 1.5 m thick, and with river pebbles and fragments of burnt mud. Neither structural remain nor continuous living floor was uncovered in Level 6. We subdivided Level 6 at Square VII-3 into 6a, above the line of 20 to 50 cm below the surface, and 6b below this line, since a discontinuous living floor, burnt red, was confirmed along this depth line. A *tennor* was uncovered at the depth of 20 cm below the surface at the northern part of Square VII-3. We are inclined to consider this oven as a modern origin. The subdivision of Level 6 was not possible at the squares other than VII-3. It is noteworthy that Level 6 at Square VII-3 was thicker in accumulation and its top was higher than at the other squares in spite of the natural soil at this square appearing lower than at other squares. The findings from Level 6 consist of lithic artifacts reported in the present paper, bone fragments of such animals as sheep, goat, and deer,¹ five fragments of human skeleton,² and a small quantity of shells. Floral remains such as seeds, however, could not be sampled.

Method of classifying lithic artifacts

In the present paper, the chipped lithic artifacts from Level 6 are classified into cores, débitage,³ retouched pieces considered as tools and/or weapons, retouch flakes from manufacture of retouched pieces, and

1) See Abe, this volume: pp. 91–96.

2) These fragments are now under study of Professor Hidemi Ishida of Osaka University.

debris. The cores are classified by shape into prismatic, pyramidal, discoidal, and globular forms. The débitage is classified into cortical débitage, partially-cortical débitage, non-cortical débitage (which is subdivided into flakes with the length less than twice the width, blades with the length equal to or more than twice the width [Bordes, 1961], and bladelets that are blades narrower than 1.2 cm [Tixier, 1963]), crested débitage, core tablets detached from the striking platforms of cores to rejuvenate the platform surface, and tiny flakes mostly with the length less than 20 mm.

Lithic artifacts from Level 6

The lithic artifacts from Level 6 of Squares VI-7 and VII-5 and Levels 6a and 6b of Square VII-3 total 2,649. They are predominantly made on chert-like or agate-like flint, which is generally fine-grained and varies in colour such as white, grey, pink, brown, and dark-brown. Only 0.15 percent of the artifacts are made on obsidian. There is not a single example with sickle sheen. No trace of pressure flaking is recognizable on either the cores or the débitage. The cortical and partially-cortical débitage as well as tiny flakes exist in such a quantity as to suggest that the manufacture of the lithic artifacts, starting with roughing-out of the river pebbles and ending with retouching the débitage produced by the core reductions as tool blanks, was carried out at the site.

The material from Level 6 of Square VI-7 totals 105 (Table 1). Almost all (104: 99.0%) of the artifacts are made on various kinds of flint, and there is one specimen (0.95%) made on obsidian. Most of the débitage are non-cortical flakes and tiny flakes (Table 2).

The material from Level 6a of Square VII-3 totals 1,232 (Table 5) (Figs. 4 to 6). All of the raw material are various kinds of flint, and there is no obsidian artifact. The cores are mainly prismatic and pyramidal (Table 6). The most numerous categories of the débitage are non-cortical flakes, bladelets, and tiny flakes (Table 7). The retouched pieces total 37, and consist of denticulated pieces, nibbled pieces, backed pieces, notched pieces, borers, geometric microliths, choppers, etc. (Table 8). The retouch flakes total 10, of which nine are micro-burins and one is a burin spall.

The material from Level 6b of Square VII-3 totals 1,012 (Table 10) (Figs. 7 and 8). Almost all (1,009: 99.7%) of the artifacts are made on various kinds of flint, but there are three (0.3%) specimens made on obsidian. The cores are mainly prismatic and pyramidal (Table 11). The main classes of the débitage are partially-cortical débitage, non-cortical flakes, bladelets, and tiny flakes (Table 12). About half of the retouched pieces are denticulated pieces (Table 13). The retouch flakes are four burin spalls and one micro-burin. Comparing Level 6b with the overlying level 6a, we may recognize two clear differences in the inventories of the artifacts; the micro-burins are more numerous in 6a and the pièces esquillées exist in 6b only.

The material from Level 6 of Square VII-5 totals 300 (Table 15) (Figs. 9 and 10). All the artifacts are made on various kinds of flint but one partially-polished axe of green slate-like stone, and there is no obsidian artifact. The débitage totals 71, and mainly consists of partially-cortical débitage, non-cortical flakes, bladelets, and tiny flakes (Table 17). The main categories of the retouched pieces are denticulated pieces, nibbled pieces, burins, and side-scrapers, although they are small in number (Table 18). Two of the three retouch flakes are micro-burins and one is a burin spall.

3) Débitage is the intentional action of breaking a block of hard rock in order to use the products as they are or to convert them into tools by retouch modification. It also comprises the products of this action [Tixier, 1963]. In the present paper, débitage means the products from the intentional breaking of raw material, but in practice excludes cores, retouched pieces, and retouch flakes.

Conclusion

Although the soundings at Tell Der Hall could not reveal any structural remains belonging to Level 6, they have yielded important data of lithic artifacts which may be placed within a time range from the Epipalaeolithic to the Neolithic of northern Iraq.

Carbon-14 dating applied to one of the fragments of animal bone has produced the value $7,400 \pm 200$ B.P. (Gak-13934). This date, however, is believed to be inconsistent with the time range proposed here.

In overall artifactual features, Tell Der Hall is similar to Karim Shahr, Layer B of Zawi Chemi Shanidar, and M'lefaat, of which the details of artifacts have been published.

In spite of the similarities, however, Tell Der Hall seems to differ from these three sites in some items of the artifactual inventories.

Karim Shahr has micro-burins, bi-products of the micro-burin technique to produce geometric microliths, most probably derived from the southern Levant during the Natufian period [Solecki and Solecki, 1983], but strangely and importantly "geometric microliths as a true category are unconvincing typologically and so are considered to be absent from the site" [Howe, 1983: p. 73]. Pressure flaking, seemingly an important innovation in flaking technology, existed at Karim Shahr [Howe, 1983: Fig. 21-No. 4]. The nonexistence of a clear example of geometric microlith and the existence of pressure flaking at Karim Shahr seem to indicate a considerable techno-typological difference from Tell Der Hall.

Zawi Chemi Shanidar Layer B has geometric microliths, far more often in the form of lunate than triangle or trapezoid, and *pièces esquillées* which are characteristic of this layer [Solecki, 1980; Solecki and Solecki, 1983], resembling Tell Der Hall in these respects. Neither pressure-flaked artifacts nor micro-burins are reported from Zawi Chemi Shanidar; the nonexistence of the former is like at Tell Der Hall, whereas that of the latter is unlike.

At M'lefaat, neither micro-burins nor *pièces esquillées* are reported, but pressure flaking existed at the site [Dittmore, 1983]. In these three techno-typological features, therefore, M'lefaat shows an important difference from Tell Der Hall.

In view of the similarities and differences in artifactual evidences mentioned above, Level 6 (6a and 6b included) of Tell Der Hall seems to approach Zawi Chemi Shanidar Layer B rather than Karim Shahr and M'lefaat.

There remains a problem for the future, however, whether the artifactual variations seen between Tell Der Hall and comparable sites including those mentioned in the present paper are ascribable to their temporal or spatial differences [Braidwood and Braidwood, 1986].

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Table 1 Inventory of Lithic Artifacts from Level 6 (Square VI-7)

	Frequency	Percent
Discoidal cores	1	0.95
Débitage	18	17.1
Fragments of débitage	68	64.8
Retouched pieces	6	5.7
Fragments of retouched pieces	6	5.7
Debris	6	5.7
Total	105	99.95

Table 2 Inventory of Débitage from Level 6 (Square VI-7)

	Frequency
Cortical débitage	1
Partially-cortical débitage	1
Non-cortical débitage: Flakes	7
Core tablets	1
Tiny flakes	8
Total	18

Table 3 Inventory of Retouched Pieces from Level 6 (Square VI-7)

	Frequency
Denticulated pieces	1
Notched pieces	1
Geometric microliths (Lunates)	1
Choppers	1
Denticulated side-scrapers	1
Irregularly-retouched pieces	1
Total	6

Table 4 Inventory of Fragmentary Retouched Pieces from Level 6 (Square VI-7)

	Frequency
Denticulated pieces	3
Nibbled pieces	2
Notched pieces	1
Total	6

Table 5 Inventory of Lithic Artifacts from Level 6a (Square VII-3)

	Frequency	Percent
Cores	34	2.8
Fragments of cores	9	0.7
Débitage	337	27.4
Fragments of débitage	726	58.9
Retouched pieces	37	3.0
Fragments of retouched pieces	57	4.6
Retouch flakes	10	0.8
Debris	22	1.8
Total	1,232	100.0

Table 6 Inventory of Cores from Level 6a (Square VII-3)

	Frequency	Percent
Single platform prismatic cores	8	23.5
Pyramidal cores	6	17.6
Prismatic/pyramidal cores	2	5.9
Discoidal cores	2	5.9
Opposed platform prismatic cores	1	2.9
Miscellaneous cores	11	32.4
Unclassifiable cores	4	11.8
Total	34	100.0

Table 7 Inventory of Débitage from Level 6a (Square VII-3)

	Frequency	Percent
Cortical débitage	10	3.0
Partially-cortical débitage	37	11.0
Non-cortical débitage:		
Flakes	102	30.3
Blades	1	0.3
Bladelets	75	22.3
Crested débitage	5	1.5
Tiny flakes	94	27.9
Unclassifiable débitage	13	3.9
Total	337	100.2

Table 8 Inventory of Retouched Pieces from Level 6a
(Square VII-3)

	Frequency	Percent
Denticulated pieces	7	18.9
Nibbled pieces	6	16.2
Backed pieces	5	13.5
Notched pieces	4	10.8
Borers	4	10.8
Geometric microliths (Lunates)	3	8.1
Choppers	3	8.1
Irregularly-retouched pieces	3	8.1
Side-scrapers	1	2.7
Denticulated pieces on side-scrapers	1	2.7
Total	37	99.9

Table 9 Inventory of Fragmentary Retouched Pieces from
Level 6a (Square VII-3)

	Frequency	Percent
Denticulated pieces	28	49.1
Nibbled pieces	11	19.3
Backed pieces	5	8.8
Notched pieces	5	8.8
Denticulated side-scrapers	2	3.5
Side-scrapers	2	3.5
Borers	1	1.8
Regularly-retouched pieces	1	1.8
End-scrapers	1	1.8
End-notches	1	1.8
Total	57	100.2

Table 10 Inventory of Lithic Artifacts from Level 6b
(Square VII-3)

	Frequency	Percent
Cores	37	3.7
Fragments of cores	5	0.5
Débitage	276	27.3
Fragments of débitage	583	57.6
Retouched pieces	43	4.2
Fragments of retouched pieces	42	4.2
Retouch flakes	5	0.5
Debris	21	2.1
Total	1,012	100.1

Table 11 Inventory of Cores from Level 6b (Square VII-3)

	Frequency	Percent
Single platform prismatic cores	12	32.4
Pyramidal cores	8	21.6
Prismatic/pyramidal cores	3	8.1
Opposed platform prismatic cores	1	2.7
Discoidal cores	1	2.7
Globular cores	1	2.7
Pyramidal/discoidal cores	1	2.7
Miscellaneous cores	7	18.9
Unclassifiable cores	3	8.1
Total	37	99.9

Table 12 Inventory of Débitage from Level 6b
(Square VII-3)

	Frequency	Percent
Cortical débitage	5	1.8
Partially-cortical débitage	44	15.9
Non-cortical débitage:		
Flakes	88	31.9
Blades	5	1.8
Bladelets	64	23.2
Crested débitage	2	0.7
Core tablets	1	0.4
Tiny flakes	56	20.3
Unclassifiable débitage	11	4.0
Total	276	100.0

Table 13 Inventory of Retouched Pieces from Level 6b
(Square VII-3)

	Frequency	Percent
Denticulated pieces	23	53.5
Nibbled pieces	3	7.0
Notched pieces	3	7.0
Irregularly-retouched pieces	3	7.0
Pièces esquillées	3	7.0
Burins	3	7.0
Choppers	1	2.3
Notches on side-scrapers	1	2.3
Unclassifiable retouched pieces	3	7.0
Total	43	100.1

Table 14 Inventory of Fragmentary Retouched Pieces from Level 6b (Square VII-3)

	Frequency	Percent
Denticulated pieces	20	47.6
Backed pieces	9	21.4
Nibbled pieces	7	16.7
Pièces esquillées	3	7.1
Irregularly-retouched pieces	2	4.8
Notched pieces	1	2.4
Total	42	100.0

Table 15 Inventory of Lithic Artifacts from Level 6 (Square VII-5)

	Frequency	Percent
Cores	4	1.3
Fragments of cores	3	1.0
Débitage	71	23.7
Fragments of débitage	190	63.3
Retouched pieces	12	4.0
Fragments of retouched pieces	16	5.3
Partially-polished axes	1	0.3
Retouch flakes	3	1.0
Total	300	99.9

Table 16 Inventory of Cores from Level 6 (Square VII-5)

	Frequency
Discoidal cores	2
Opposed platform prismatic cores	1
Unclassifiable cores	1
Total	4

Table 17 Inventory of Débitage from Level 6 (Square VII-5)

	Frequency	Percent
Cortical débitage	1	1.4
Partially-cortical débitage	13	18.3
Non-cortical débitage:		
Flakes	18	25.4
Bladelets	14	19.7
Crested débitage	1	1.4
Tiny flakes	24	33.8
Total	71	100.0

Table 18 Inventory of Retouched Pieces from Level 6 (Square VII-5)

	Frequency
Denticulated pieces	2
Nibbled pieces	2
Burins	2
Side-scrappers	2
Denticulated side-scrappers	1
Notched pieces	1
Pièces esquillées	1
Unclassifiable retouched pieces	1
Total	12

Table 19 Inventory of Fragmentary Retouched Pieces from Level 6 (Square VII-5)

	Frequency
Denticulated pieces	8
Nibbled pieces	3
Notched pieces	3
Backed pieces	1
Scrapers	1
Total	16

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Explanation of Figs. 4 to 10

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|---|---|
| Fig. 4 Lithic artifacts from Level 6a, Square VII-3 | Fig. 8 Lithic artifacts from Level 6b, Square VII-3 |
| 1. Pyramidal core | 1. Multiple notched piece |
| 2. Opposed platform prismatic core | 2. Double denticulated piece |
| 3. Single platform prismatic core | 3. Unclassifiable retouched piece reminiscent of a straightly-edged projectile weapon |
| Fig. 5 Lithic artifacts from Level 6a, Square VII-3 | 4. Burin on a truncation |
| 1. Crested débitage | 5. Burin on a break |
| 2. Micro-burin | 6. Pièce esquillée |
| 3. Micro-burin | 7. Micro-burin |
| 4. Micro-burin | Fig. 9 Lithic artifacts from Level 6, Square VII-5 |
| 5. Geometric microlith (Lunate) | 1. Bladelet |
| 6. Nibbled piece | 2. Crested débitage |
| 7. Borer | 3. Burin spall |
| 8. Double denticulated piece | 4. Micro-burin |
| 9. Partially-backed piece | 5. Partially-polished axe |
| 10. Double partially-backed piece | Fig. 10 Lithic artifacts from Level 6, Square VII-5 |
| Fig. 6 Lithic artifacts from Level 6a, Square VII-3 | 1. Burin on a break |
| 1. Double convex side-scraper | 2. Pièce esquillée |
| 2. Chopper | 3. Notched piece |
| Fig. 7 Lithic artifacts from Level 6b, Square VII-3 | 4. Multiple notched piece |
| 1. Crested débitage | 5. Double convex/concave side-scraper |
| 2. Bladelet | 6. Borer |
| 3. Bladelet | |
| 4. Blade | |
| 5. Blade | |

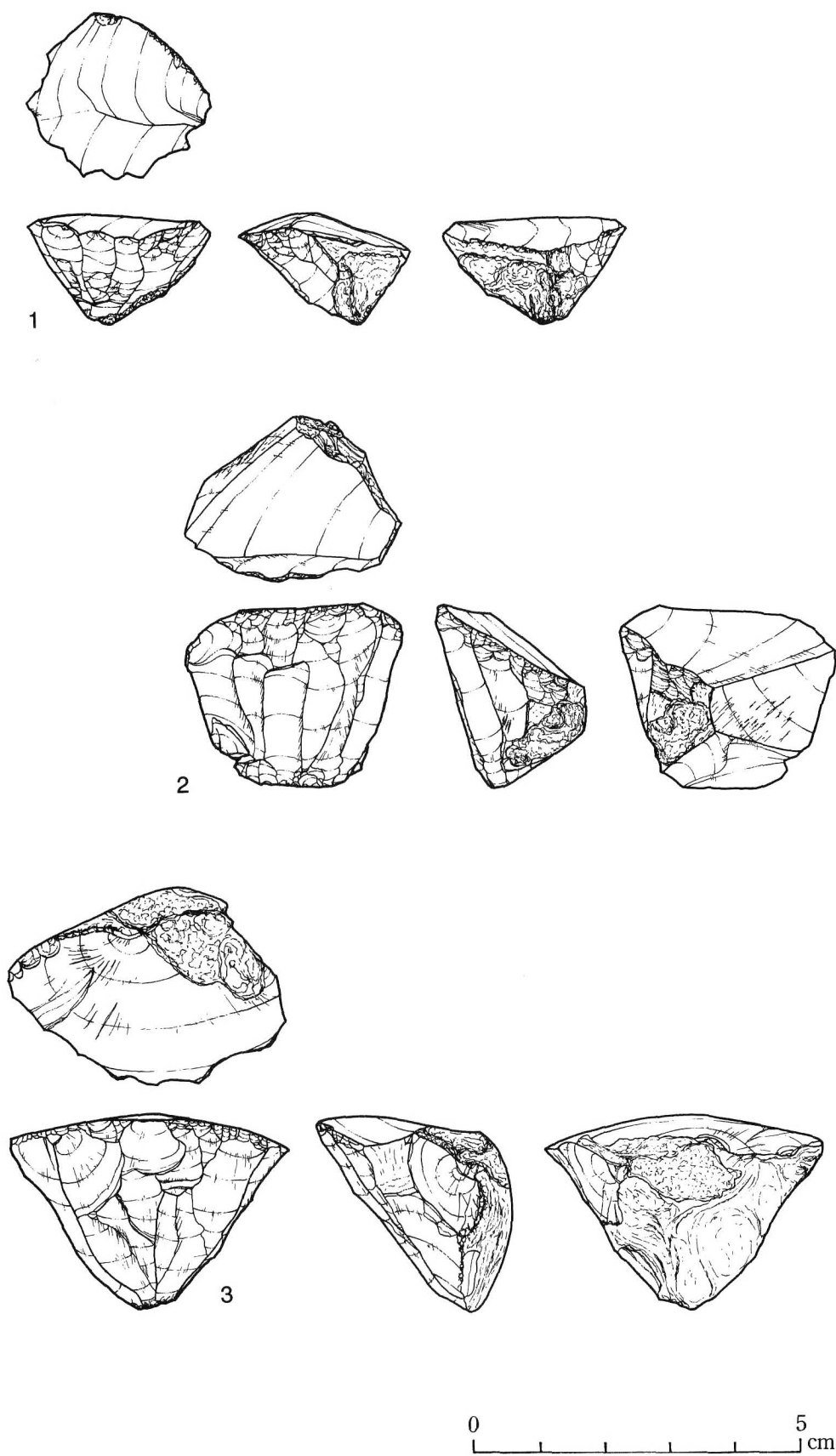


Fig. 4 Lithic artifacts from Level 6a, Square VII-3

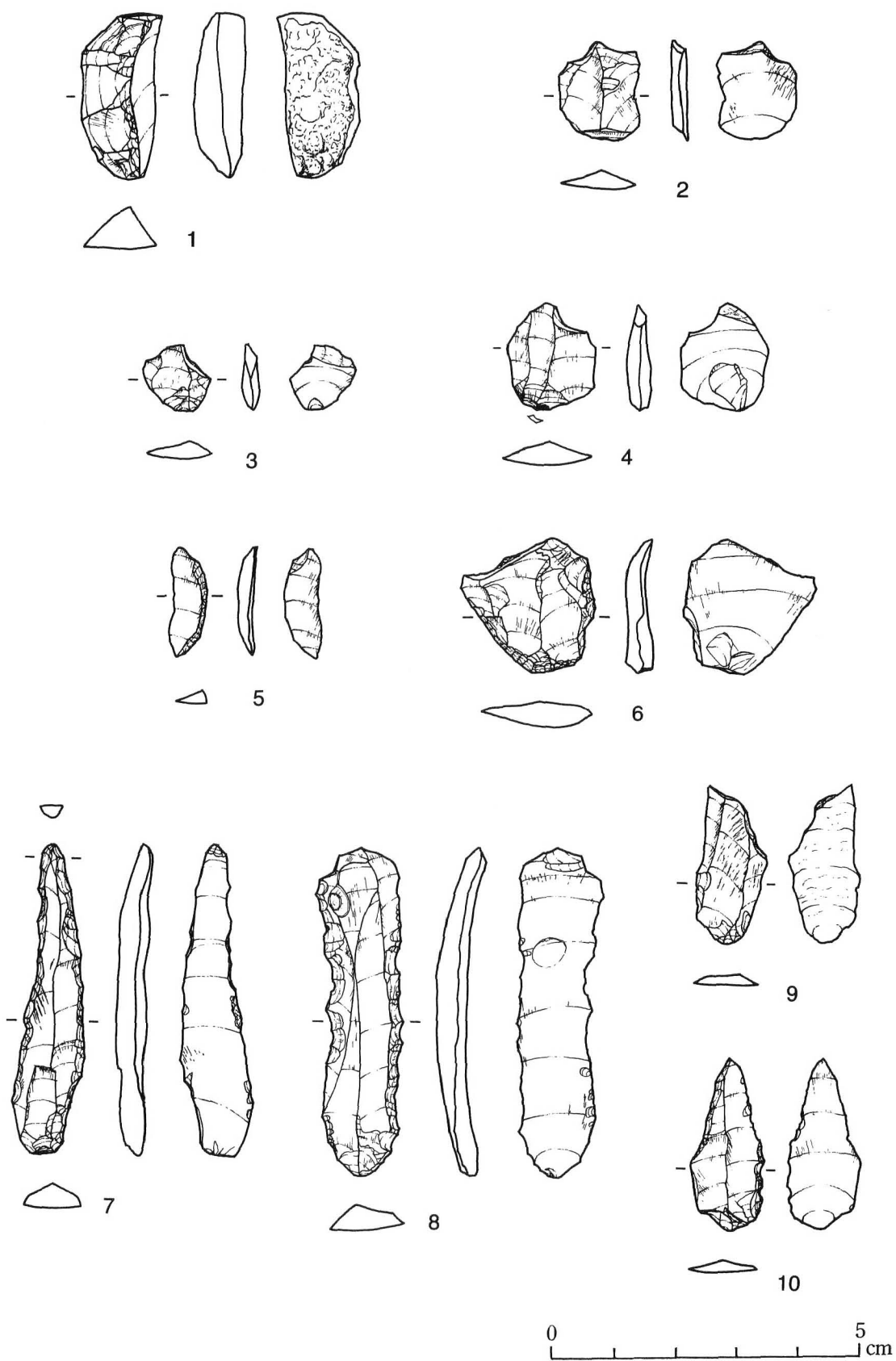


Fig. 5 Lithic artifacts from Level 6a, Square VII-3

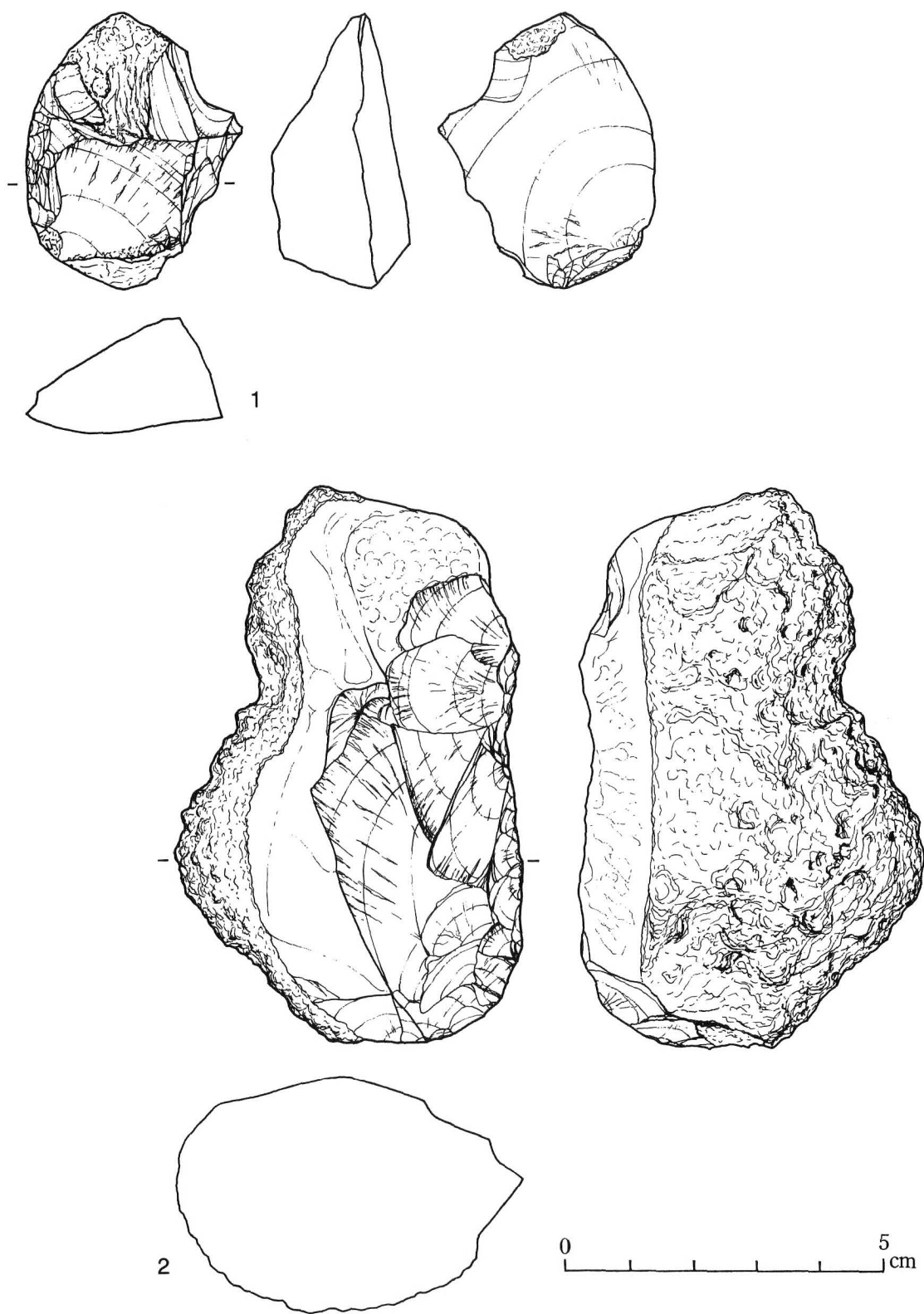


Fig. 6 Lithic artifacts from Level 6a, Square VII-3

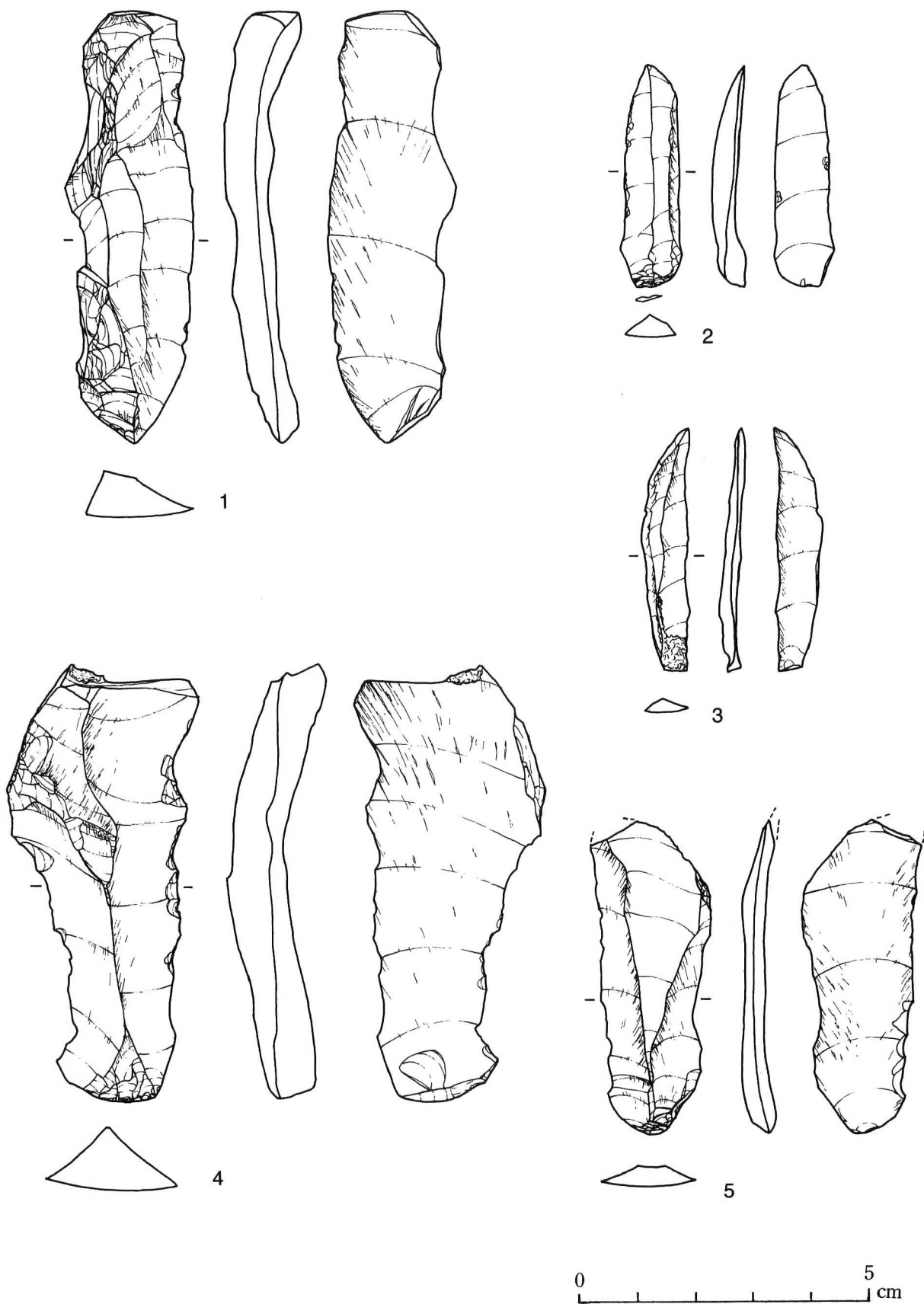


Fig. 7 Lithic artifacts from Level 6b, Square VII-3

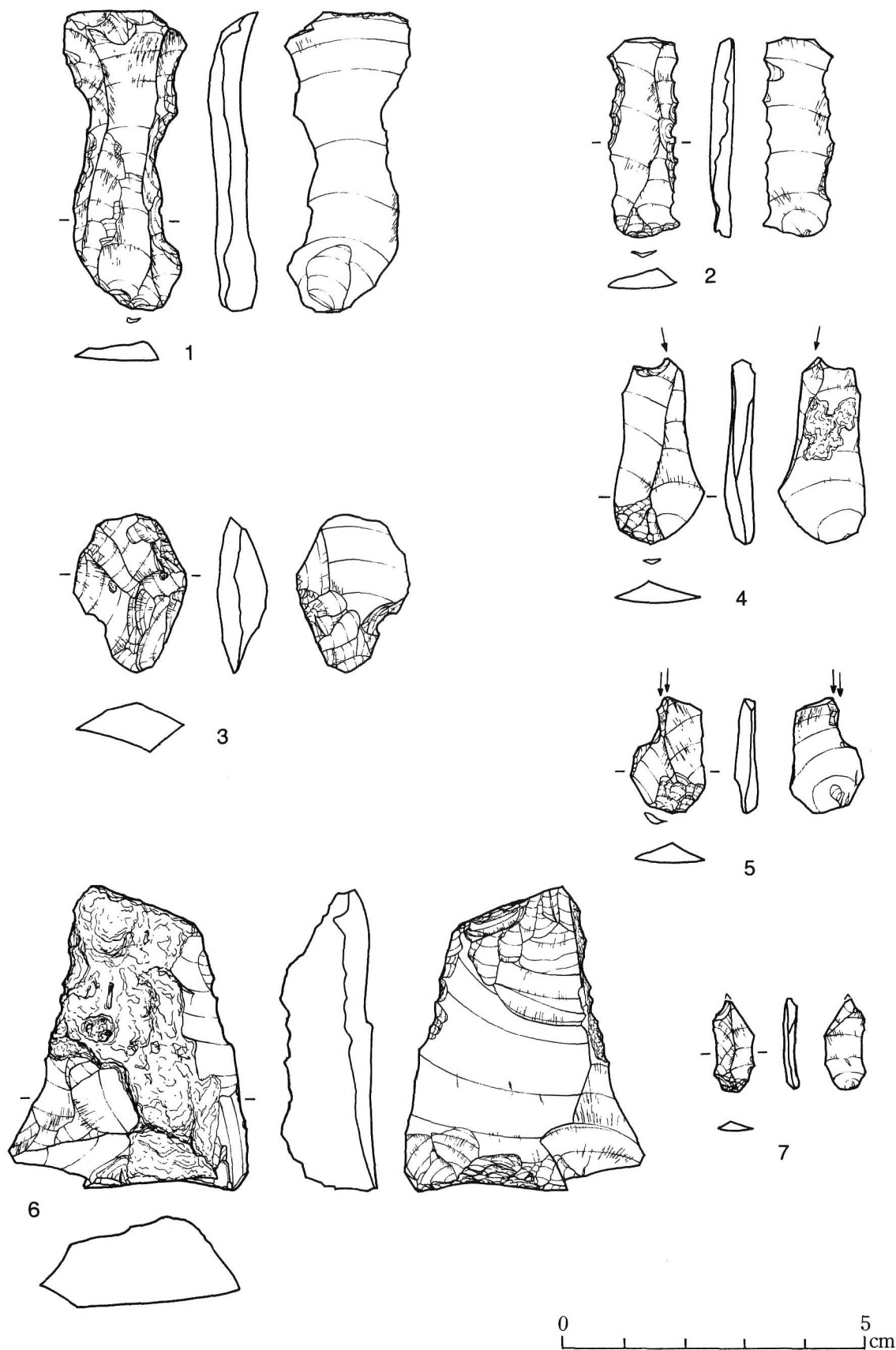


Fig. 8 Lithic artifacts from Level 6b, Square VII-3

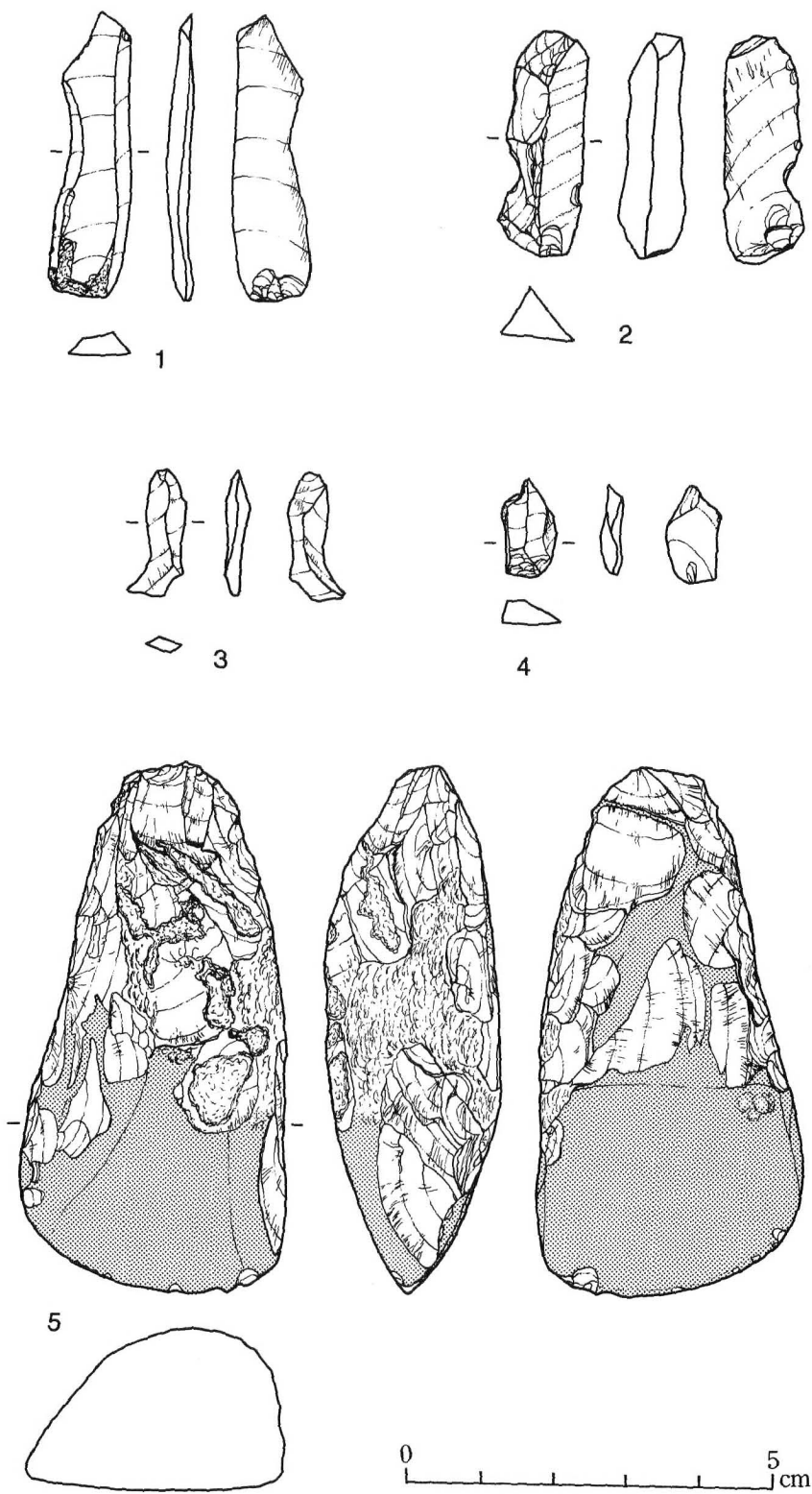


Fig. 9 Lithic artifacts from Level 6, Square VII-5

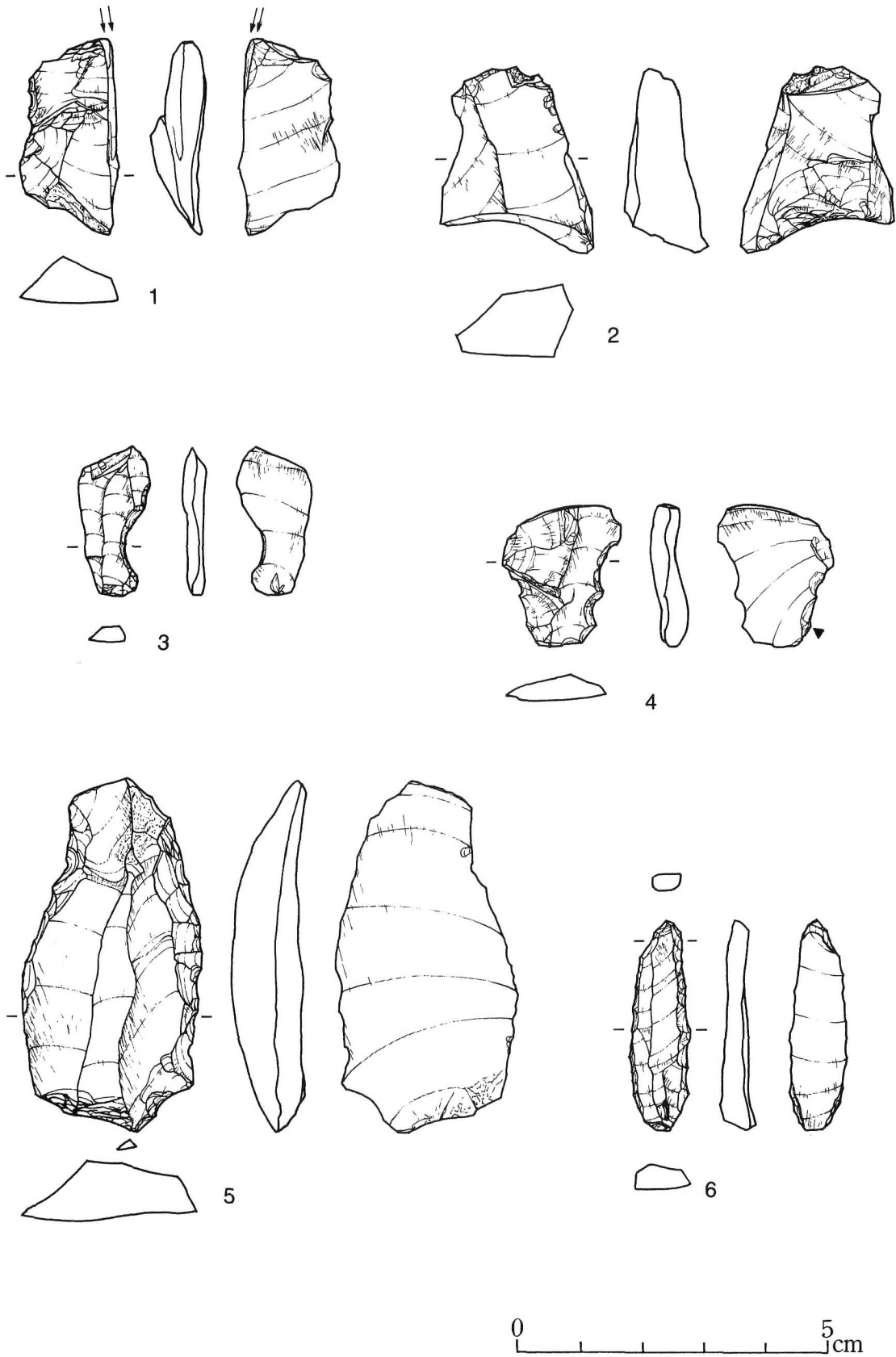


Fig. 10 Lithic artifacts from Level 6, Square VII-5



a. General view of Tell Der Hall



b. Section in Square VII-6, Tell Der Hall

Tell Der Hall