Anna Smogorzewska, Andrzej Reiche

Ninevite 5 Kitchen from Tell Arbid (Sector W)

Polish Archaeology in the Mediterranean 22, 371-386

2013

NINEVITE 5 KITCHEN FROM TELL ARBID (SECTOR W)

Andrzej Reiche,[1] Anna Smogorzewska[2]
[1] National Museum in Warsaw, [2] Institute of Archaeology, University of Warsaw

Abstract: A Ninevite 5-period presumed kitchen discovered in 2010 at the site of Tell Arbid in northeastern Syria is discussed from the point of view of specific cooking installations and objects used for cooking and food processing. The kitchen was furnished with two hearths, a storage bin, two jars sunk in the floor and large fragments of pottery vessels, which could have been used for cooking, processing and storing foodstuffs. Cooking pots are the most numerous, but big bowls, common ware jars, lids and a small shovel were also part of the kitchen accessories.

Keywords: kitchen, cooking pots, hearths, Tell Arbid, Ninevite 5

Among the discoveries of the 2010 season on Tell Arbid in northeastern Syria was a walled space (Locus 7) furnished with cooking facilities that included fire installations, a storage bin and a large deposit of broken cooking pots and other vessels. The nature of finds from this locus suggests that it had been arranged as a place intended for preparing and cooking food.

Locus 7 lay within the limits of Sector W in the southern part of the site, where Ninevite 5 architecture, including the so-called Southern Temple, had been uncovered in preceding seasons (Bieliński 2010: 551–552; 2012: 523–525) [*Fig. 1*, top]. It was part of a dense complex of small rectangular units, which were either dwellings or storerooms, and furnaces. The complex was situated to the north of the Southern Temple, in the northeastern quarter of square 52/55. On the west the complex was bordered by the east wall of an L-shaped ceremonial courtyard. Locus 7 was dated to the Ninevite 5 period on the grounds of pottery with incised and excised decoration.

The space in question was a long irregular trapeze, 2.55 m long from north to south and 1.10 m wide at the north end, extending to 1.50 m at the southern one [*Figs 1, 2*]. It had no structural walls of its own and was, in fact, a space bordered by the walls of other structures: wall W15/W16 of locus 17/52-56 on the east, wall W3 of the Southern Temple on the south, wall W7 from locus 26 on the west and wall W5 on the north. The lattermost wall, which was 0.60 m wide and stood to 1.25 m above the kitchen floor, constituted part of the still unexplored complex in the

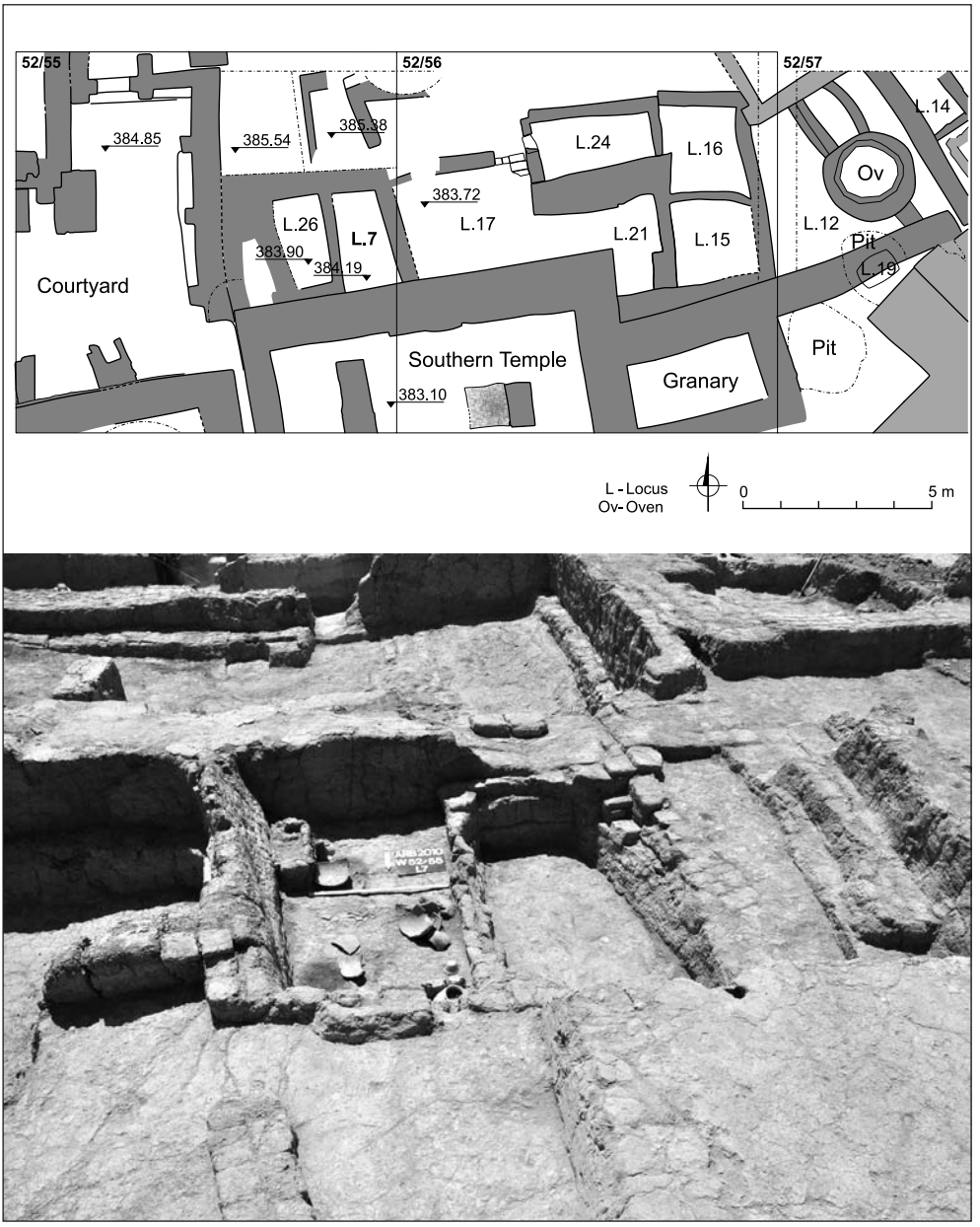

Fig. 1. Plan of the northern part of sector W-East showing the immediate vicinity of Locus 7 (top) and general view of Loci 17, 7 and 26 from the north with the Southern Temple in the background and a fragment of L-shaped ceremonial courtyard at top right (Drawing D. Bielińska, P. Bieliński, M. Momot, D. Szeląg; digitizing M. Momot; photo A. Reiche)

northeastern corner of square 52-55. It is clear from the architectural layout that Locus 7 was connected with the unexplored complex of rooms to the northeast.

Locus 7 had just enough space, 2.80 m^2, for one or two people at most, engaged in preparing meals. The only possible location of an entrance was in the north wall (W5) where there is evidence of later blocking, taking on the form of vertical cracks in the wall. The entrance was about 0.50 m wide.

There were at least two usage phases of the kitchen, each one marked by hearths on the clay floors. The younger floor dropped off insignificantly toward the south. A brick (26 cm square) rested on the axis of the entrance by the north wall. It may have been used to step down into the space. On the west, the brick adjoined a platform made of clay and neatly plastered, measuring 0.50 m in length and 0.34–0.40 m in width, rising 0.25 m above

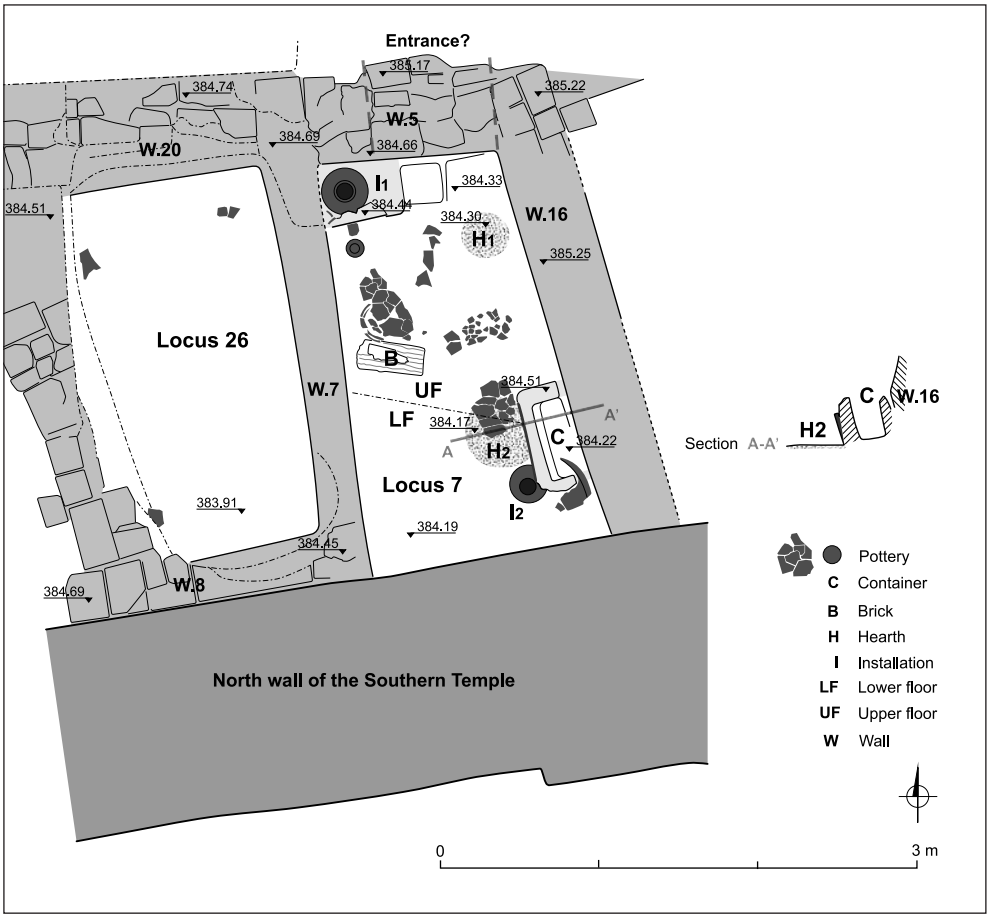

Fig. 2. Kitchen (Locus 7) with installations and sherds scattered on the younger and older floors (Drawing and digitizing M. Momot)

the floor. Encased asymmetrically by the platform was a large jar (J1), partly sunk into the floor of the kitchen in the northwestern corner [*Fig. 3*]. It was 32 cm high and had a diameter of 13.6 cm [Cat. 18; *Fig. 8:1*]. The jar was chaff-faced, with traces of scraping inside and brushing outside. It was plastered with an insulating layer of red clay approximately 0.5 cm thick. The top of the jar extended a few centimeters above the surface of the platform. A complete cup (C1) lay upturned just south of this installation. This fine ware cup with everted rim and low carination is an exceptional find [Cat. 24; *Fig. 7:1*]. The vessel was fired in high temperatures. It is

Fig. 3. Installation (I1) in the northwestern corner: thin layer of clay insulating the jar (J1) and the south side of the encasing platform (Photo A. Reiche)

Fig. 4. Southeastern installations: clay bin with burnt wall, hearth (H2) and sunken jar with broken off neck (I2) (Photo A. Reiche)

olive in color and a lime-popping effect can be seen on the surface. A small lid (L1), matching the mouth of the jar (J1), was found in the fill in the northeastern corner of the room [Cat. 21; ***Figs 9:13***; see also ***Fig. 10***].

A round hearth, measuring approximately 30 cm in diameter, was traced as a burning mark on the younger floor, situated in the northern part of the room by the east wall. Two large concentrations of sherds were recorded. The first one was formed by sherds belonging to three shattered vessels, lying in close proximity to an overburned brick measuring 30 x 18 x approximately 6(+x) cm. Two of the vessels were cooking pots (P1, P2), the third a large jar (J2). The cooking pots represented a single type of hole-mouthed vessels with crescent lugs [Cat. 15, 16; ***Fig. 9:6, 9***]. The jar (J2) with globular body and short curved neck is partly preserved; it is chaff-faced and reveals traces of scraping inside [Cat. 19; ***Fig. 8:2***].

Fig. 5. Scattered potsherds in position on the younger kitchen floor during exploration, view from the north (Photo A. Reiche)

Two broken cooking pots (P4, P5) formed the other scatter; the sherds were pressed flat into the clay floor [***Fig. 5***]. The cooking pots were furnished with crescent lugs [Cat. 12, 13; ***Fig. 9:2, 5***]. It can be assumed that these sherds came from vessels that were broken when the kitchen was in use, which would explain why they were pressed into the floor. The other concentration of pottery presumably represents vessels abandoned by their users when the kitchen went out of use.[1] While the large fragments of vessels probably belonged to pots used in the kitchen, small single sherds must have come with the soil and ashes that accumulated on the floor after the room was no longer visited.

Two large bowls, fragmentarily preserved, also represented the younger phase of Locus 7 [Cat. 1, 2; ***Fig. 7:4, 5***]. They were approximately 40 cm in diameter at the rim. Clay tempered with chaff was used in their production and they were fired in a low temperature (grey core in the break). The inside surface of one of these bowls was cracked. A similar technology was employed for a smaller bowl with an approximate diameter of 20 cm [Cat. 3; ***Fig. 7:3***]. A pierced base may have also belonged to a kitchen-ware bowl; it is chaff-faced, like other kitchen-ware bowls, but also shows a lime-popping effect [Cat. 25; ***Fig. 7:6***].

[1] For a discussion of concepts concerning household inventories, see Pfälzner 2001.

A group of three different kitchen installations uncovered in the southeastern part of the room was connected with the older phase of the kitchen. The installations consisted of a clay bin, hearth (H2) and jar (J3) partly sunk into the floor [*Fig. 4*]. The narrow rectangular bin, measuring 0.50 m by 0.20 m inside, was attached to the wall that set off the kitchen space on the east (its present condition detached from the wall and leaning away from it is due to the outward-leaning of the wall as a result of a pit being dug next to it in the Khabour Ware-period). Its three free-standing walls were built of upended bricks, which were 10 cm thick and 27 cm high. By the northern corner of this bin there was a hearth approximately 38 cm in diameter (H2). It had been covered by the younger floor and the sherds of a large cooking pot (P3) belonging to the assemblage of vessels from the second phase of use of the kitchen. The cooking pot (P3) with rim diameter of 25 cm and crescent lugs bears traces of soot in its lower part [Cat. 14; *Fig. 9:1*]. It also showed slight burnishing on the outside and evidence of scraping on the inside. Roughly smoothened traces of coils on the inside surface pointed to the coiling technique having been employed in the production of this vessel. The older hearth was recorded on a level 0.16 m below that of hearth H1 associated with the younger floor. The front wall of the bin had become strongly burned due to the use of this hearth. Fragments of a large lid (L2) lay on top of this hearth [Cat. 22; *Fig. 9:14*].

A common ware jar with intentionally broken neck (J3) was sunk into the older floor of the kitchen (about 0.14 m below the level of hearth H2) by the southern corner of the bin and at the very edge of the hearth. The body diameter of the jar measured 22 cm, the preserved height 21 cm [Cat. 17; *Fig. 8:3*]. Traces of scraping were visible inside the jar, below the neck. The jar was executed in a combined technique of wheel-throwing and coiling. Evidence of neck attachment and scraping below this can be seen on the inside walls of the jar.

A fragment, most probably from a shovel, was also found in the older phase of Locus 7 [Cat. 23; *Fig. 9:15*]. Shovels in better states of preservation from the Ninevite 5 period have been found already in Sector W [*Fig. 11*]. A similar object was recorded in Ninevite 5 layers at Leilan IIIc (Schwartz 1988: Fig. 35: 11). The suggestion is that this class of finds can be considered characteristic of Ninevite 5 kitchen assemblages.

The hearths were both marked by a round spot of burned clay of dark brown to black color. Similarly to other cases of installations of this kind found elsewhere on the site, there was probably a few-centimeter thick layer of fine gravel mixed with clay under the burned clay of the hearth, forming a kind of substructure for the hearth.[2]

A small trapezoid room (Locus 26) neighboring with the kitchen on the west, 2.40 m long, 1.20 m wide at the northern end and 0.90 m at the southern one, served as an ash dump for the kitchen during its functioning. It had two successive clay floors separated by a layer of ashes approximately 10 cm thick, containing

[2] The excavation was interrupted before exploration of this unit could be completed; the northern part of the older floor was not cleared and the structure of the hearth failed to be examined.

potsherds and a few clay impressions of seals of the Piedmont type. The younger floor, which corresponded more or less with the older floor in Locus 7, was covered with an uneven layer of brick tumble from 0.40 m to 0.60 m thick, containing large fragments of vessels and two sherds of thin-walled Ninevite 5 pottery with fine incised decoration, supplementing the data for dating of the kitchen to an earlier phase of the Ninevite 5 period. The brick tumble may have come from wall W7, which it adjoined. The wall, which separated the two units, was built of a single row of bricks 30 cm wide and appears to have been lowered to facilitate dumping ash from the kitchen across its top. The standing stump of the wall (how much exactly of the wall had been lowered could not be ascertained) was preserved approximately 0.90 m above the older kitchen floor. The lowered wall could also have acted as a windbreak. The ashes accumulated on top of the brick tumble in Locus 26 ended about 0.20 m below the preserved top of wall W7; the rest of the space to the top of the wall was filled with an accumulation of silt.

Once it was abandoned, the unit was filled with clayey deposits, representing a combination of erosion and windblown accumulations, which also contained brick waste, potsherds, animal bones and ashes. The overlying accumulation of clay was much finer with very few sherds. On top of this deposit, 0.55 m above the floor, there lay a complete andiron (in the southwestern corner) and a fragment of a large bowl. There was no evidence whatsoever to suggest that the kitchen was still in use in its original function. The abandoned space served as an ash dump, ashes filling it to the top of the truncated wall. The next, chronologically different phase brought a complete new urban layout of the area.

DISCUSSION

The installations and ceramics found in Locus 7 form a consistent assemblage corresponding to kitchen function. Sherds of more than 20 vessels were found in it, on the floor as much as in layers directly superimposed on the floor [***Fig. 6***]. Sixteen of the vessels represented kitchen wares (12 cooking pots, four bowls), whereas four were common-ware jars. There was also a fineware cup, two lids and a fragment tentatively identified as a small shovel. It is not likely that this pottery is in a secondary context here, having been collected for a different purpose. There is a clear functional connection between it and other cooking facilities, such as hearths, found in this locus.

Hole-mouth cooking pots were the most numerous vessel category in this assemblage [Cat. 4–6, 8–16, ***Fig. 9:1–12***]. They were furnished with crescent-shaped or horizontal lugs under the rim. All the pots were of the same form coming in two sizes: pots with a rim diameter of 14–16 cm and pots with a rim diameter of approximately 20–25 cm. Cooking pots with crescent lugs are typical of the Ninevite 5 pottery tradition and have been recorded at many sites with recognized Ninevite 5 occupation, including Tell Leilan, Tell Brak, Tell Barri, Tell Raqai, Tell Kutan and Tell Fisna (Schwartz 1988: Fig. 35:1–3; Matthews [ed.] 2003: Fig. 5.67:6, 5.65:15, 5.64:6, 5.60:3,5,8,18; Valentini

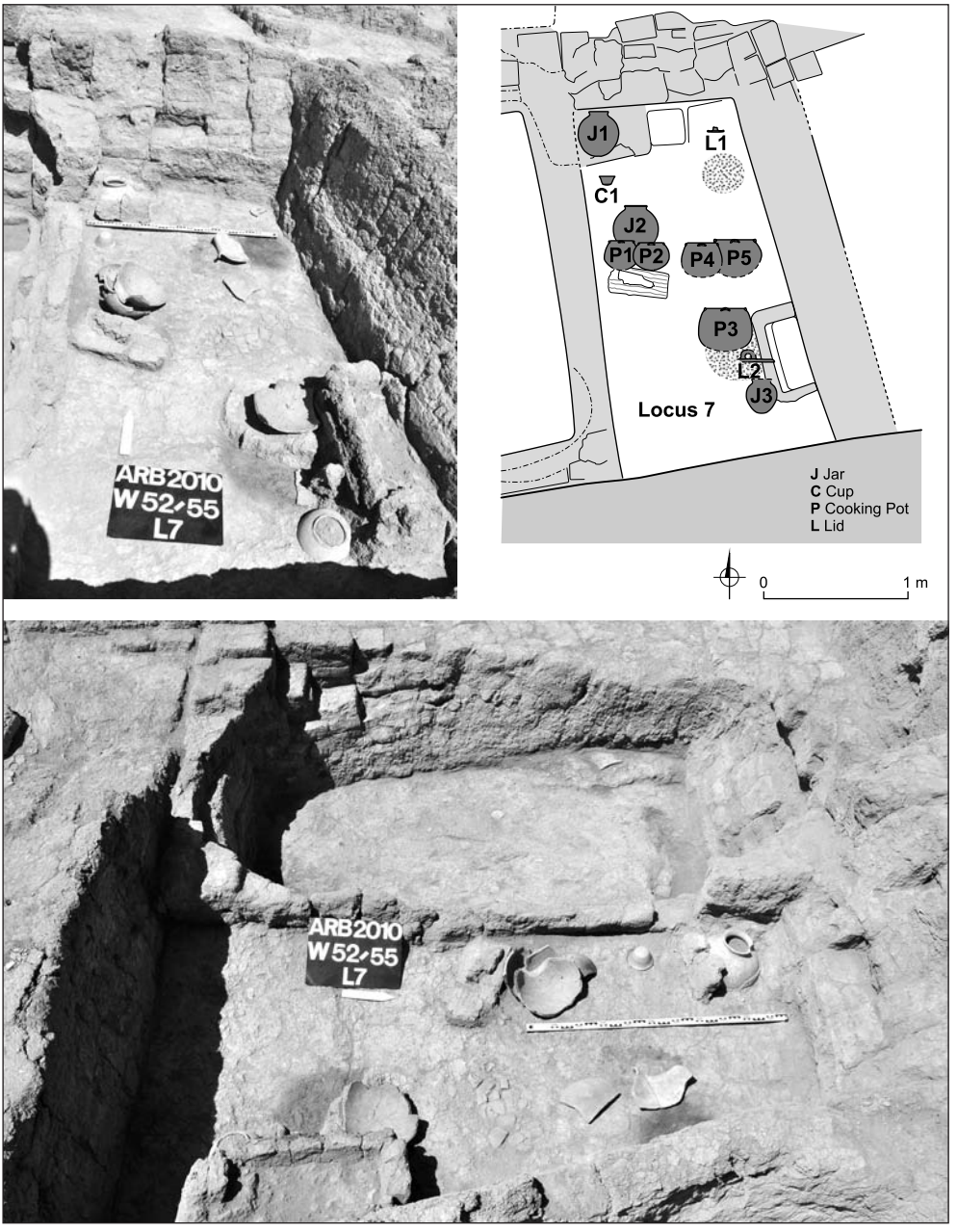

Fig. 6. Position of whole vessels and large sherds found in the kitchen (Locus 7), top right, and kitchen installations and reconstructed vessels in place, view from the south (bottom) and east (Digitizing M. Momot; photo A. Reiche)

2008: Fig. 6:10–11; Curvers, Schwartz 1990: Fig. 19:1–8; Bachelot 2003: Fig. 33; Numoto 2003: Fig. 14:123–126).

All the cooking pots from the kitchen were made in the same technology using clay tempered with chaff. Single black grains and mica observed in the clay matrix were present most probably in the clay source. Vessels were fired at low temperatures. The grey core in the break of most of the pots attests to low firing temperature or short firing time. The surface of the vessels was for the most part not treated intentionally. Only four of the 12 cooking pots were distinguished by a slightly burnished surface and one pot [Cat. 6] had burnishing on the inside surface, while the outside was cracked. Another pot [Cat. 10] had the outer surface burnished slightly and a presumed bitumen sealant attested on the inside walls.

Two lids with handles were also found in the assemblage, one 12 cm in diameter (L1), the other one 37 cm in diameter (L2) [Cat. 21–22; ***Fig. 9:13, 14***]. The technology of these two lids resembles that of the cooking pots described above. They were made of clay tempered with chaff and fired in low temperatures. The smaller of the two lids fitted the mouth of one of the common ware jars (J1) [Cat. 18; ***Fig. 8:1***]. The large one could have been used with one of the larger cooking pots (approximate diameter 25 cm) or larger kitchen ware bowls approximately 40 cm in diameter. The disc-shaped lids with handles belong to the Ninevite 5 pottery tradition and are commonly found on sites with noted Ninevite 5 occupation (e.g. Tell Kutan, see Bachelot 2003: Fig. 34, Tell Leilan, see Schwartz 1988: Fig. 45:5, Tell Raqai, see Curvers, Schwartz 1990: Fig. 19:14).

Judging by the number of vessels and by the character of the installations, it should be assumed that the space did not cater to a single family, but was used for the preparation of meals for an extended household — a socio-economic group where a number of families could have shared a meal. Since there does not appear to be any passage between this kitchen and the Southern Temple and the L-shaped ceremonial courtyard, it seems unlikely that it was connected functionally with those structures, but the relationship between the two complexes requires further study.

Cooking pots, hearths and other household equipment are known from the Ninevite 5 period, but so far there has been no assemblage, that could be identified undoubtedly as a kitchen (for late Ninevite 5 period kitchens, in both open and roofed areas, from Tell Arbid, see Smogorzewska 2012). Sites with recorded occupation from the incised and excised phase of Ninevite 5, e.g., Tell Mohammad Arab and Tell Kutan, have produced rooms with hearths, but without other cooking facilities. In any case, hearths were standard house furnishings and their presence is hardly tantamount to specialized cooking activities, as can be said to be the case with regard to Locus 7 from Tell Arbid.

The main furnishings of Locus 7 included two round hearths associated with two phases of use. Archaeological and ethnoarchaeological data demonstrate the use of hearths for diverse purposes: heating, cooking, processing foodstuffs and roasting (Smogorzewska 2012: 243–244). Here, the large quantities of cooking vessels suggest cooking as the main function. The size of the hearths corresponds to the size of the cooking pots. Their diameter — 30 and 40 cm respectively for the

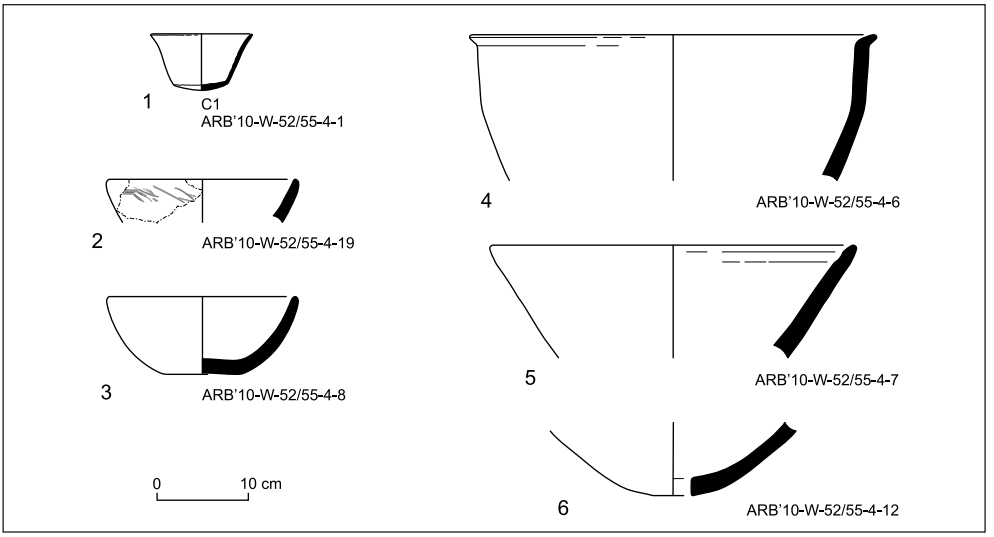

Fig. 7. Ceramic vessels from Locus 7: 1 – fine ware cup, 2–5 – kitchen ware bowls, 6 – pierced vessel base (Drawing and digitizing M. Momot)

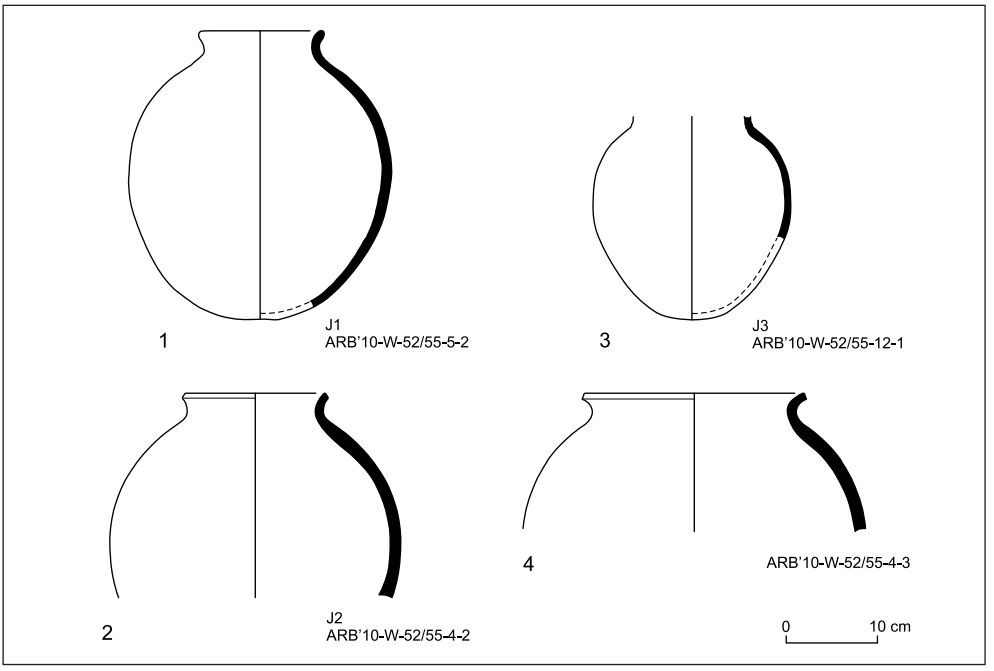

Fig. 8. Common ware jars from Locus 7 (Drawing and digitizing M. Momot)

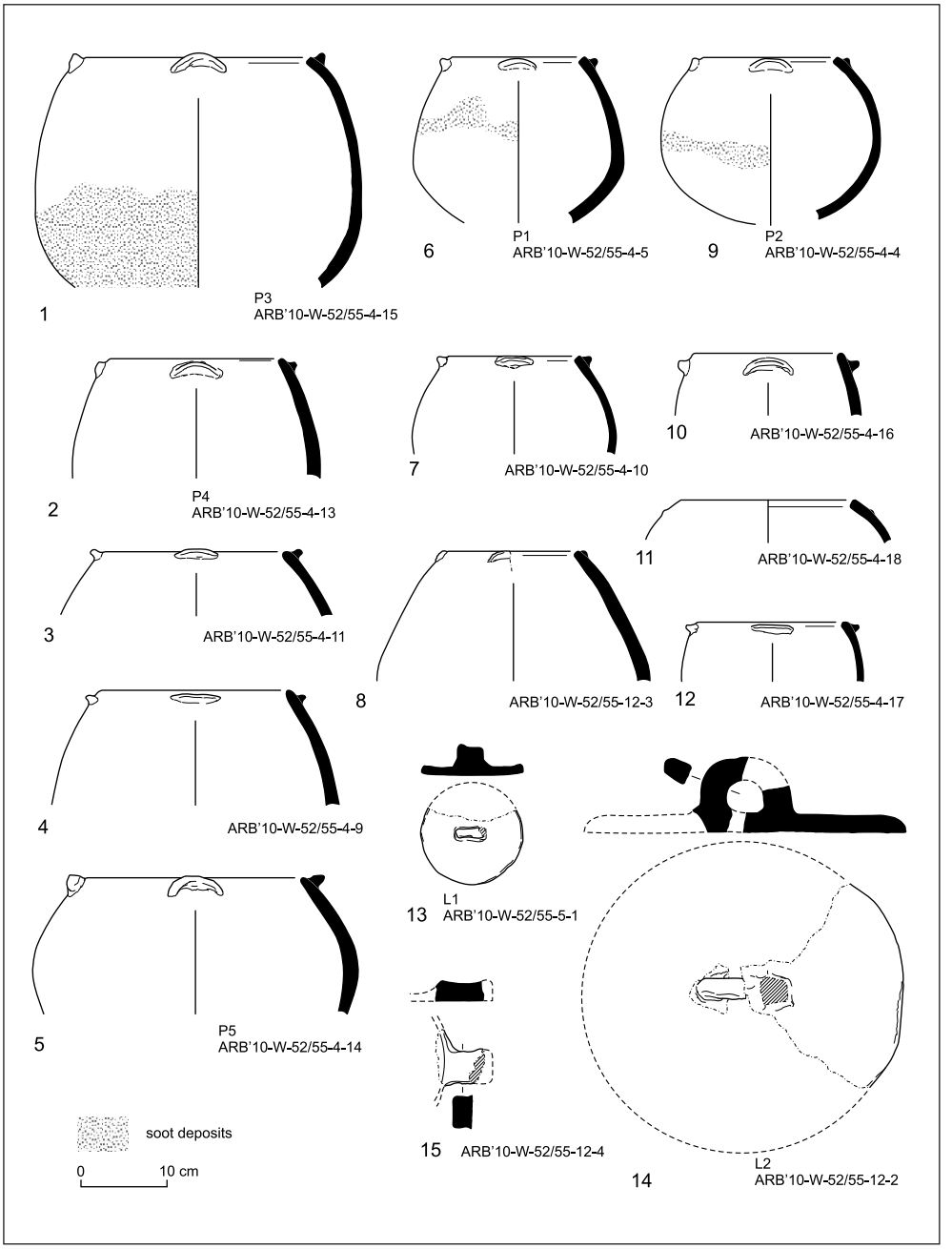

Fig. 9. Pottery vessels and other clay objects from Locus 7: 1–12 – cooking pots, 13–14 – lids, 15 – shovel fragment(?) (Drawing and digitizing M. Momot)

two phases — indicates that they were used for single pots. The cooking pot (P3) with rim diameter of 25 cm and maximum body diameter of 37 cm is one of the biggest ceramic vessels from Locus 7, corresponding in size to the older-phase hearth (H2). The younger hearth (H1), 30 cm in diameter, corresponds to the maximum body diameter of most of the cooking pots found in this assemblage, that is, approximately 25 cm. The position of the larger hearth right next to the clay storage bin does not appear to be accidental. The clay container was used for storing food products, which were subsequently processed thermally to be used as ingredients in meals prepared on this hearth. Similar clay storage bins were found in Ninevite 5 houses in Mohammad Arab, which also contained hearths (Roaf 2003: 318).

Vessels from Locus 7 were connected with household activities and could have been used for cooking, storing and processing food products. Products could have been processed in the large bowls (rim diameter approximately 40 cm) and stored in common ware jars. Two of the jars, one sunk in the floor and the other encased in a clay platform, must have served as permanent installations (jar-containers).

The shovel can have had diverse uses, particularly to rake out hot ashes or roasted grain from the hearth. It could also have ladled out dry goods like flour or grain from the storage bins. The cup, found in the vicinity of the jar (J1), could also have been used as a ladle. However, it seems too large to have been used inside the jar-containers.

Cooking pots prevailed in this assemblage. Since Ninevite 5 cooking pots had

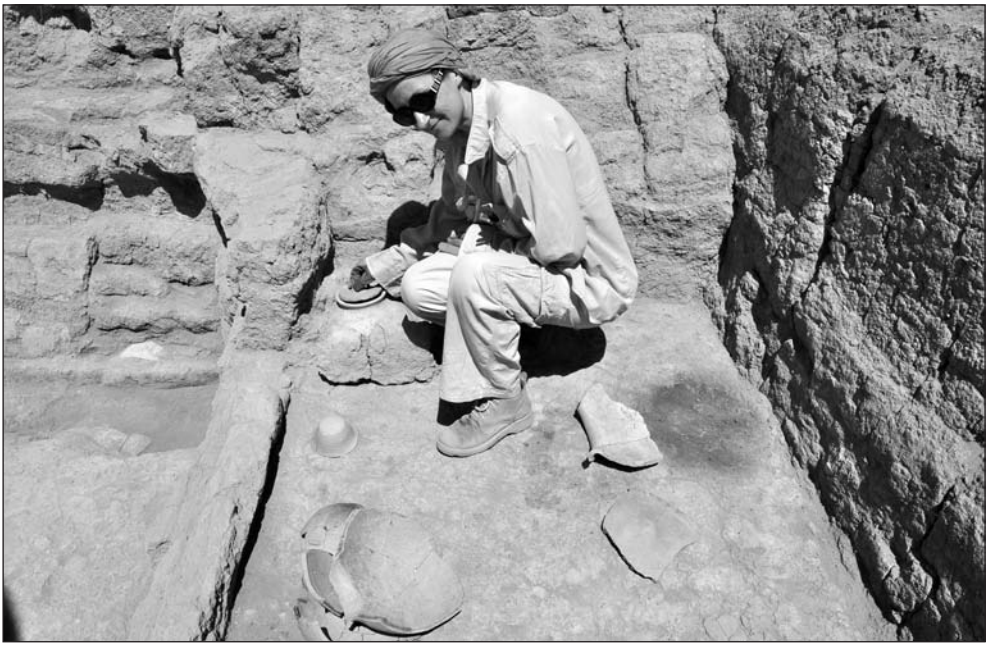

Fig. 10. Team member uses the kitchen space, fitting a lid (L1) onto the jar (J1) in the northeastern installation (Photo A. Reiche)

rounded bases, they usually needed appropriate andirons in order to be placed above the fire in flat hearths. None were found in Locus 7, but examples of such andirons have been recorded from sector W in Tell Arbid, from layers dated to the Ninevite 5 period. Curved props with handle are typical of the incised and excised Ninevite 5 phase (Smogorzewska 2010). One such prop was discovered in the upper fill of Locus 7 [***Fig. 12***, left] and three are entirely sufficient for a cooking pot of the recorded size to stand above a hearth [***Fig. 12***, right]. Horseshoe-shaped andirons could have been used as well. Stones and bricks may have been used for this purpose with equal efficiency. A burned brick was found on the floor of the kitchen, suggesting that it had been used in just such a way. Some of the cooking pots could have been placed directly in the embers.

Blackening by smoke or soot was noted on some of the cooking pots. Two cooking pots with rim diameter of 15 cm (P1, P2) were blackened half way to the top, while a bigger pot with a rim diameter of 25 cm (P3) was blackened only on the lower part. The position of soot on vessel surfaces could indicate ways in which the pots were

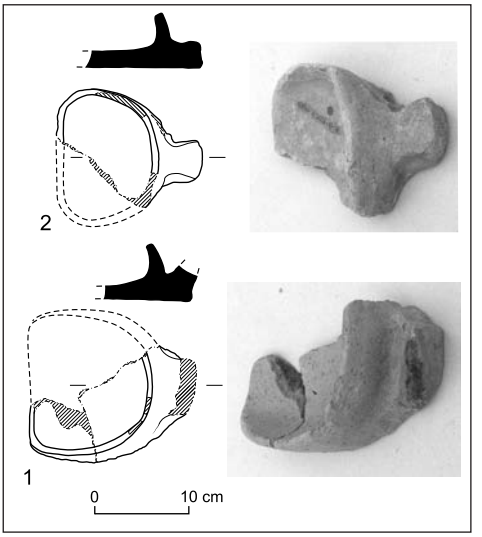

Fig. 11. Clay shovels of Ninevite 5 date, from sector W on Tell Arbid (Photo A. Reiche; drawing Ł. Wojnarowicz; digitizing M. Momot)

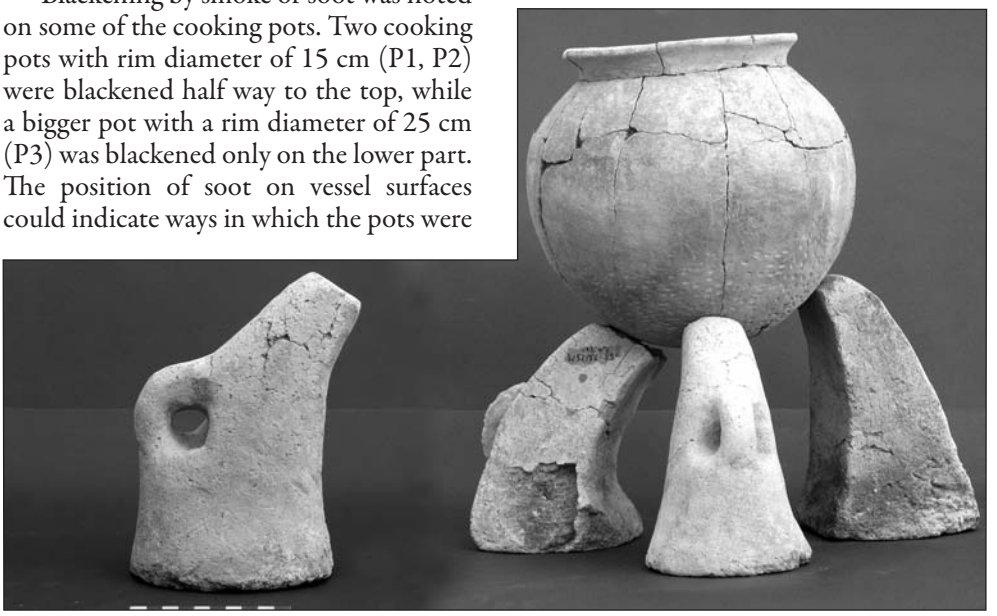

Fig. 12. Clay prop with handle of Ninevite 5 date, from sector W on Tell Arbid (left); reconstruction of the use of three clay props to stand a cooking pot (Photo A. Reiche, A. Smogorzewska)

placed during the cooking process. Traces of blackening on the lower surface (P3) suggest that the pot was suspended above the hearth or set up on andirons (assuming that the missing bottom was also sooted). In the case of the other two pots (P1, P2), which were found together with a common-ware jar sherd by the west wall, they are not only virtually identical in size and shape, but are blackened identically. This indicates that they would have been used in similar manner. The soot on these pots is found in a narrow band in the middle part of the body, suggesting that the vessel was placed either directly in the fire or embers (up to mid height in such case).

The manner in which a vessel was placed in the fire, as indicated by the sooting, can be an indication of how the cooking process proceeded: was it cooking on a low fire (pot suspended above the fire) or in high temperatures (pot in the fire or embers). The data is insufficient for determining how the cooking was done in this kitchen.

No post-consumptional animal bones or archeobotanical remains were found in Locus 7, hence nothing can be said about the dietary practices of the users of this installation. Indeed, the absence of post-consumptional remains indicates that the room was used only to prepare meals, which were consumed elsewhere, not the least because of the small size of the space. The finds from Locus 7 left little room for doubt that this space had been arranged as a kitchen, that is, a room intended for preparing and cooking food.

CATALOGUE

No.	Tag	Description
		KITCHEN WARE
1	52/55-4-6	Rim diameter 44 cm, **bowl**, chaff-faced, inner surface cracked, reddish yellow (5YR 6/6), low firing temperature (grey core)
2	52/55-4-7	Rim diameter 40 cm, **bowl**, chaff-faced, reddish yellow (5YR 6/6), low firing temperature (grey core)
3	52/55-4-8	Rim diameter 20 cm, **bowl**, chaff-faced, reddish yellow (5YR 7/6), low firing temperature
4	52/55-12-3	Rim diameter 15 cm, **pot**, **crescent lug**, chaff-faced, reddish yellow (5YR 6/6), cracked surface inside, grey core
5	52/55-4-10	Rim diameter approx. 14 cm, **pot**, **horizontal lug**, chaff-faced, light brown (7.5YR 6/4), low firing temperature
6	52/55-4-9	Rim diameter approx. 21 cm, **pot**, **horizontal lug**, slightly burnished inside, outer surface cracked, light brown (7.5YR 6/4), low firing temperature, grey core
7	52/55-4-19	Rim diameter 21 cm, **bowl**, chaff-faced, very pale brown (10YR7/4), grey core
8	52/55-4-17	Rim diameter approx. 16 cm, **pot**, horizontal lug, chaff-faced, some lime particles visible on the surface, light brown (7.5YR 6/4), medium firing temperature
9	52/55-4-16	Rim diameter approx. 16 cm, **pot**, **crescent lug**, chaff-faced, light reddish brown (5YR6/4), grey core
10	52/55-4-18	Rim diameter approx. 19 cm, **pot**, traces of bitumen inside, slightly burnished, very pale brown (10YR7/3), grey core

No.	Tag	Description
11	52/55-4-11	Rim diameter approx. 20 cm, **pot**, **horizontal lug**, slightly burnished, very pale brown (10YR7/3), grey core
12	52/55-4-14 (P5)	Rim diameter approx. 25 cm, **pot**, **crescent lug**, light brown (7.5YR6/3), blackened, grey core
13	52/55-4-13 (P4)	Rim diameter approx. 19 cm, **pot**, **crescent lug**, light brown (7.5YR 6/4), grey core
14	52/55-4-15 (P3)	Rim diameter 25 cm, **pot**, four **crescent lugs**, scraping inside, slightly burnished outside, light brown (7.5YR6/4), grey core
15	52/55-4-5 (P1)	Rim diameter 14 cm, **pot**, **crescent lugs**, chaff-faced, reddish yellow (5YR6/6), grey core
16	52/55-4-4 (P2)	Rim diameter approx. 16 cm, **pot**, four **crescent lugs**, chaff-faced, light reddish brown (5YR6/4), grey core
		COMMON WARE JARS
17	52/55-12-1 (J3)	Scraping inside below neck, rim missing, pale yellow (5Y8/2), medium firing temperature
18	52/55-5-2 (J1)	Rim diameter 13.6 cm, chaff-faced, scraping inside, brushing outside, pale yellow (2.5Y8/2), medium firing temperature
19	52/55-4-2 (J2)	Rim diameter 15 cm, chaff-faced, scraping inside, very pale brown (10YR 7/3), low firing temperature (grey core)
20	52/55-4-3	Rim diameter 24 cm, chaff-faced, scraping inside, light brown (7.5YR 6/4), low firing temperature (grey core)
		LIDS
21	52/55-5-1 (L1)	Diameter 12 cm, chaff-faced, light reddish brown (5YR6/3), low firing temperature
22	52/55-12-2 (L2)	Diameter 37 cm, chaff-faced, light reddish brown (5YR6/4), low firing temperature
		SHOVEL
23	52/55-2-4	Chaff-faced, low firing temperature
		FINEWARE CUP
24	52/55-4-1 (C1)	Rim diameter 11.1 cm, light olive grey (5Y6/2), lime popping effect, high firing temperature
		OTHER
25	52/55-4-12	Base with a hole, chaff-faced, lime popping effect, pale brown (10YR 6/3), grey core

Andrzej Reiche
Keeper of the Ancient Near Eastern Collection, Ancient and East Christian Art Collections
National Museum in Warsaw
00-459 Warsaw, Poland, Al. Jerozolimskie 3
areiche@mnw.art.pl

Dr. Anna Smogorzewska
Institute of Archaeology, University of Warsaw
00-927 Warsaw, Poland, ul. Krakowskie Przedmieście 26/28
asmog@wp.pl

REFERENCES

Bachelot, L.
2003 Tell Kutan [in:] E. Rova, H. Weiss (eds), *The Origins of North Mesopotamian Civilization: Ninevite 5 Chronology, Economy, Society* [=*Subartu* 9], Turnhout: Brepols, 153–191

Bieliński, P.
2010 Tell Arbid. Preliminary report on the results of the twelfth season of Syrian–Polish excavations, *PAM* 19 (*Reports 2007*), 537–554
2012 Tell Arbid 2008–2009. Preliminary report on the results of the thirteenth and fourteenth seasons of Polish–Syrian excavations, *PAM* 21 (*Research 2009*), 511–536

Curvers, H.H., Schwartz, G.M.
1990 Excavations at Tell al-Raqai: a small rural site of early urban Northern Mesopotamia, *AJA* 94/1, 3–23

Matthews, R. (ed.)
2003 *Excavations at Tell Brak* IV. *Exploring an Upper Mesopotamian Regional Centre, 1994–1996*, Cambridge: McDonald Institute for Archaeological Research; London: British School of Archaeology in Iraq

Numoto, H.
2003 Ninevite 5 pottery from Tells Fisna and Thuwaij and its relative chronology in Mosul region [in:] E. Rova, H. Weiss (eds), *The Origins of North Mesopotamian Civilization: Ninevite 5 Chronology, Economy, Society* [=*Subartu* 9], Turnhout: Brepols, 83–152

Pfälzner, P.
2001 *Haus und Haushalt. Wöhnformen des Dritten Jahrtausends vor Christus in Nordmesopotamien* [=*Damaszener Forschungen* 9], Mainz am Rhein: Philipp von Zabern

Roaf, M.
2003 The architecture of the Ninevite 5 Period [in:] E. Rova, H. Weiss (eds), *The Origins of North Mesopotamian Civilization: Ninevite 5 Chronology, Economy, Society* [=*Subartu* 9], Turnhout: Brepols, 311–334

Schwartz, G.M.
1988 *A Ceramic Chronology from Tell Leilan. Operation 1* [=*Yale Tell Leilan Research Series* 1], New Haven, CT: Yale University Press

Smogorzewska, A.
2010 Andirons from Tell Arbid. Archaeological and ethnoarchaeological study, *ÉtTrav* 23, 142–155
2012 Fire installations in household activities. Archaeological study from Tell Arbid (North-east Syria), *Paléorient* 38/1–2, 227–247

Valentini, S.
2008 Ninevite 5 pottery from Tell Barri in Jezirah [in:] H. Kühne, R.M. Czichon, F.J. Kreppner (eds), *Proceedings of the 4th International Congress on the Archaeology of the Ancient Near East, 29 March–3 April 2004, Freie Universität Berlin* II. *Social and Cultural Transformation: The Archaeology of Transitional Periods and Dark Ages. Excavation Reports*, Wiesbaden: Harrasowitz, 259–272