

# **‘AWJA SITES: SUPPLEMENTARY INVESTIGATIONS OF NEOLITHIC OPEN SANCTUARIES IN SOUTHERNMOST JORDAN**

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## **Introduction**

The ‘Awja sites are located in southernmost Jordan, near the Saudi border. They were first discovered during the 2010 summer field season and were subsequently briefly examined in the 2011 summer field season (Fujii *et al.* n.d.). The then rescue investigation suggested that they represented Neolithic or Chalcolithic open sanctuaries, but the field operation was interrupted halfway through owing to a heavy sandstorm that erupted during the latter half of the season. For this reason, we devoted the last ten days of this season to supplementary investigations at these unique sites and tried to gather further research data. This has contributed to the establishment of a chronology for Neolithic open sanctuaries in southern Jordan and surrounding areas. Another result was the discovery of representations of feline animals at ‘Awja 1, which has shed new light on cultural contact between southern Jordan and the Negev / Sinai during the Late Neolithic. The following is a brief summary of the investigation results.

## **The Sites and Site Settings**

The ‘Awja sites lie in the middle of a sand desert that extends below the escarpment fringing the southern edge of the Jafr basin (**Fig. 1**). The area belongs to the Cretaceous formation in terms of geology, presenting a landscape quite different to the Jafr basin, which is covered with extensive quaternary sediments (Bender 1974: 20-22). In this sense, it may be more correct to define the area as a northern extension of al-Tubaiq, the hilly, sandstone terrain occupying the north-western corner of Saudi Arabia. The local climate is therefore hyper-arid, with no perennial water sources in the area. These harsh

environmental conditions are the most distinctive feature of the ‘Awja sites, and hold a key to understanding their cultural background.

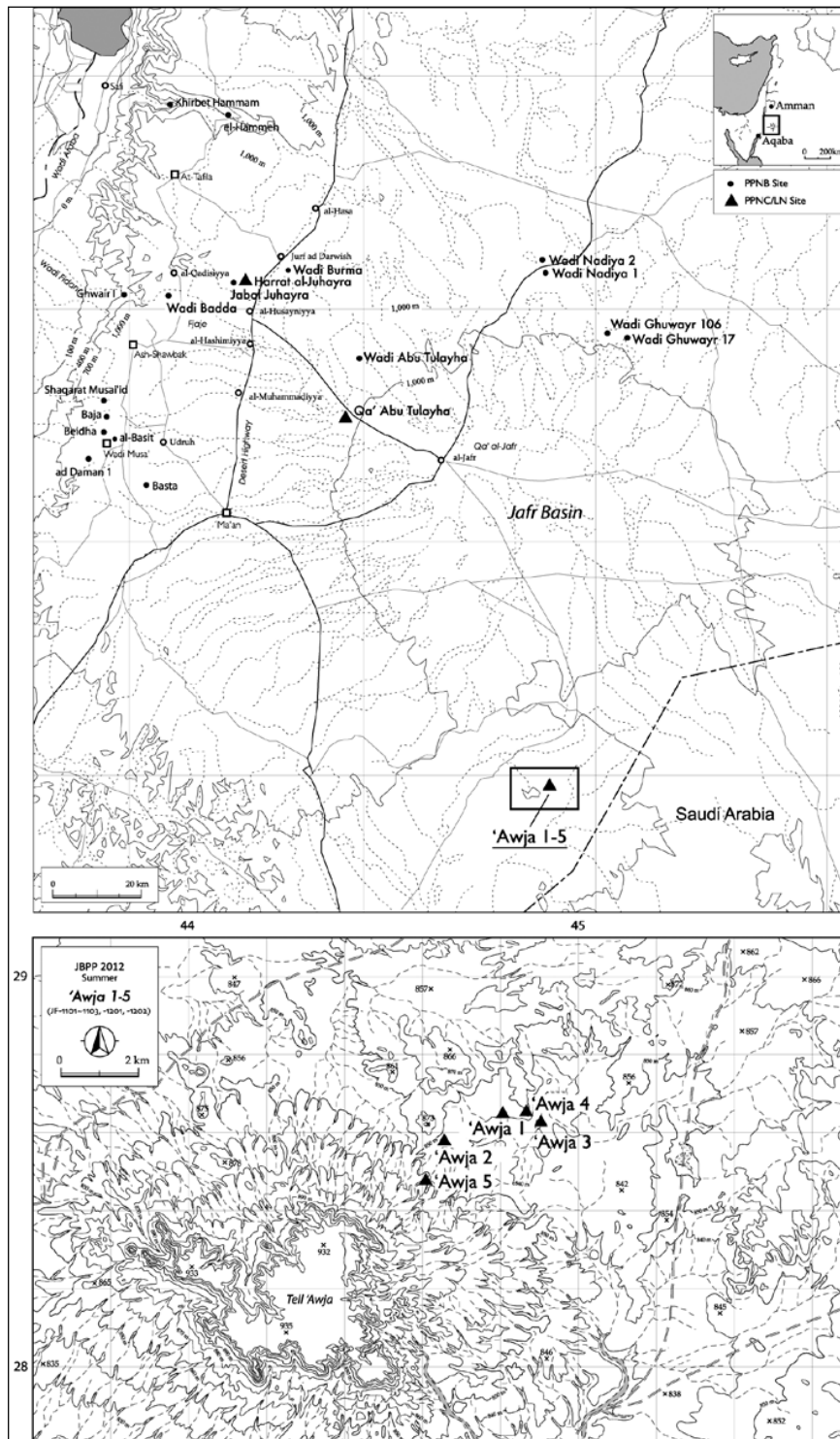
The sites are situated on flat terrain *ca* 2.5 km north-east of Tell ‘Awja, the main landmark in the area, and form a contemporary site cluster encompassed within small sandstone hills and rises. The last field season located three sites, ‘Awja 1, 2 and 3, which were tentatively identified as Neolithic to Chalcolithic open sanctuaries (Fujii *et al.* op. cit.). The most recent season located two new sites (‘Awja 4 and 5). The description that follows will focus on the three sites of ‘Awja 1, 4 and 5, that were either re-investigated or newly investigated in this field season.

## **Supplementary Excavation at ‘Awja 1**

The site of ‘Awja 1 is located on a fluvial plain, *ca* 5 km north-east of Tell ‘Awja, and consists of the following two structural complexes (**Figs. 2 - 4**). Complex I was partially excavated last season. This season significantly enlarged the excavation area and explored its overall character. Complex II, on the other hand, was only surface-cleaned last season. During this season it was entirely excavated and its details pursued. Since neither artifacts nor faunal / floral remains were recovered from either complex, the following description focuses only on structural remains.

### *Complex I*

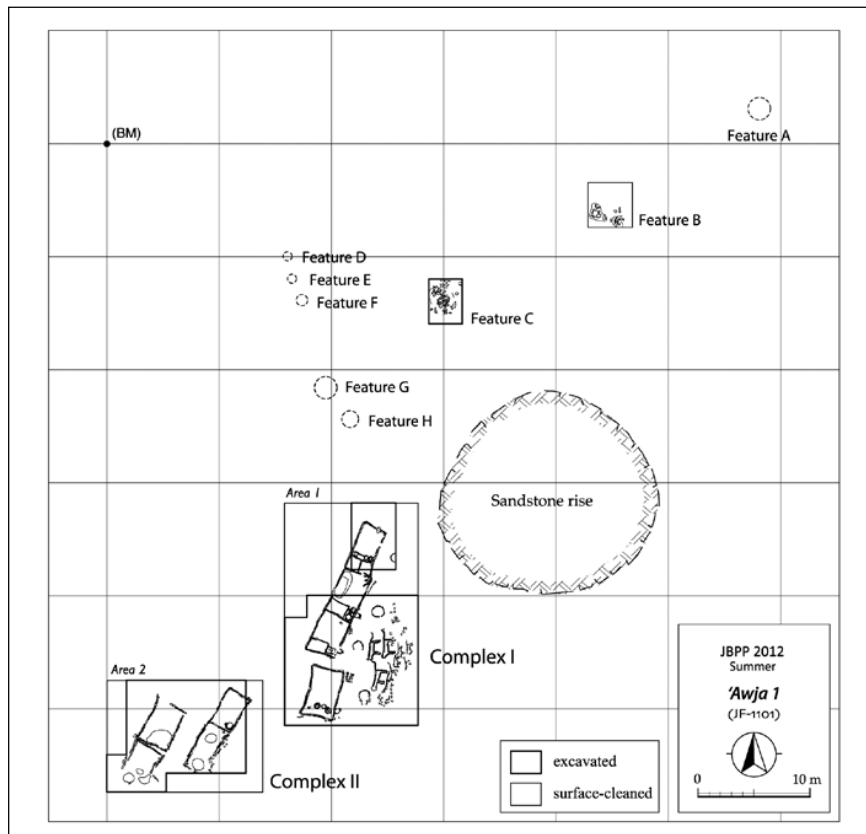
The supplementary investigation has clarified the overall character of Complex I (**Figs. 5 - 7**). In terms of technology, we confirmed anew that the complex was constructed by means of the two-row upright slab wall technique, a con-



1. The location of the 'Awja sites and their surrounding topography.

struction method unique to the Neolithic *badia* (Betts 1998, 2012; Fujii n.d.; Garrard *et al.* 1987, 1994). Of interest was the existence of corner stones, which were used to mark the mid-points of the two long sides of each unit as well as its four corners. This fact demonstrates that

the complex was constructed on a systematic architectural basis. As for construction material, locally occurring coarse sandstone slabs were used without any significant modification. Most were 10 - 30 cm long and were laid directly on the then ground surface in stretcher bonds. The



2. 'Awja 1: site plan.



3. 'Awja 1: general view of the site (looking NE).

exceptions to this are small features constructed of smaller slabs, often arranged in an upright position. No clear evidence for clay mortar or foundation 'banks' was recognized, but it might possibly have weathered away over a long peri-

od of time. The absence of fallen stones around the walls indicates that the complex consisted only of the foundation course. No small finds, including faunal / floral remains, were recovered in or around the complex, suggesting that



4. 'Awja 1: general view of the site (looking SW).

the site was used for some ephemeral or non-domestic purpose. The absence of traces of actual life, such as hearths or ashy deposits, to say nothing of artifacts, also supports this functional identification.

The complex falls into the following two groups of units. One consists of the laterally connected continuum of Units A - C, which is aligned ENE - WSW and measures *ca* 12 m in total length and *ca* 2 - 2.5 m in width. The other is the freestanding Unit D, which is separated from the neighboring Unit C by *ca* 1 m and, at the same time, differs slightly in general orientation from the continuum of which Unit C is part. Both observations suggest that there was a small temporal gap between the two. Also of significance is the fact that all of the four units are associated with a round feature in front of their front walls. Both components are probably paired to form the composite unit or 'pseudo-house burial cairn' characteristic of Late Neolithic open sanctuaries or symbolic communal cemeteries in the Jafr basin (Fujii n.d.). As noted above, no artifacts were recovered in or around the complex. Even hearths and ashy deposits were absent. A brief description of each unit follows.

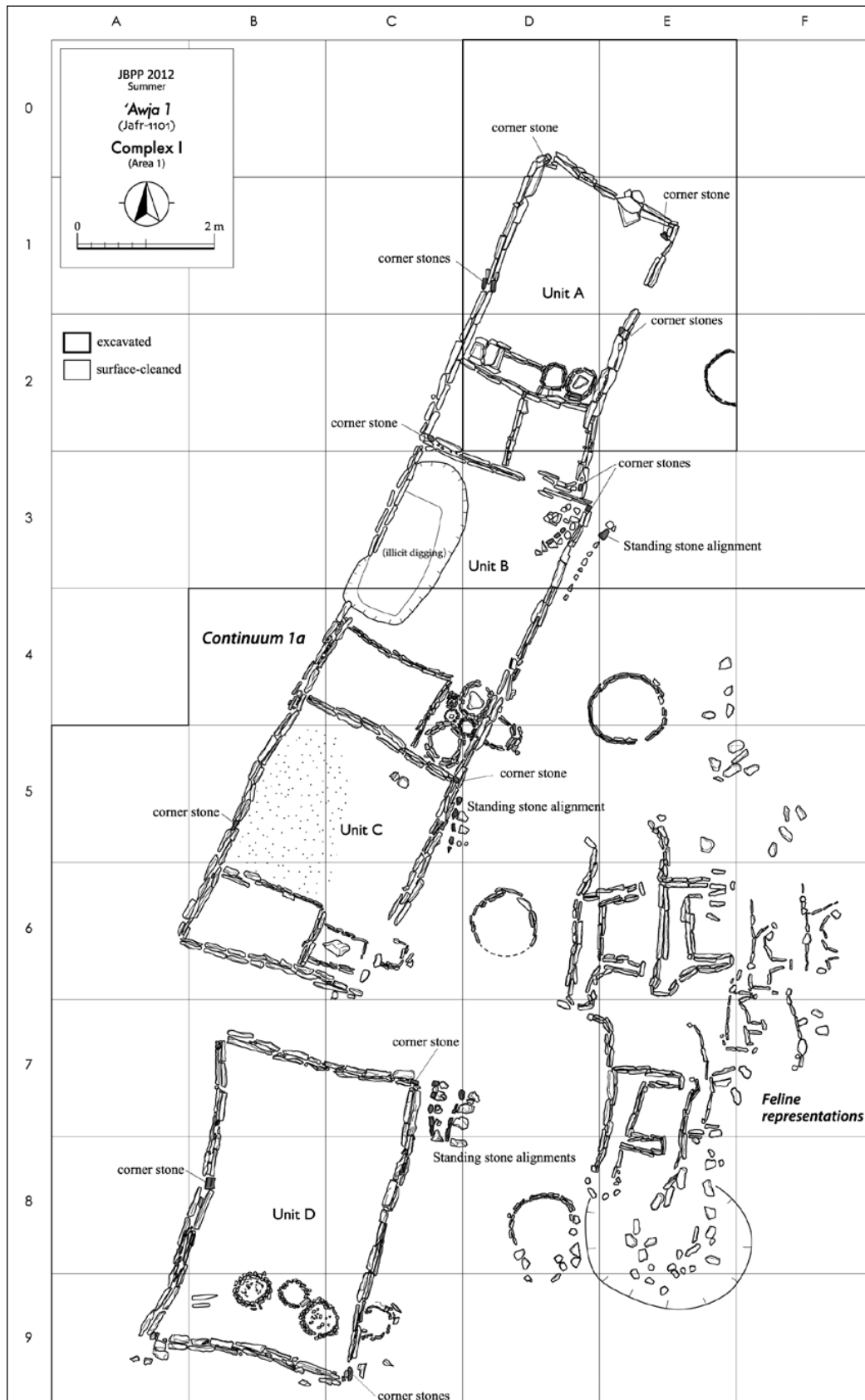
#### Unit A

Unit A, the northernmost component of the continuum, is a rectangular structure *ca* 4 m long by *ca* 2 m wide (**Fig. 8**). As noted above, corner stones were used to mark a total of six

major points on the peripheral walls. The unit was equipped with a small gap in the middle of the front wall, which might represent an entrance to the main room of the unit. In addition, two square compartments and four small rectangular or round features were incorporated along the south-western wall. Interestingly, two of the four small features were covered with a capstone, but nothing was found underneath (**Fig. 9**). Turning to the outside of the unit, a large circle *ca* 0.8 m in diameter and *ca* 0.1 - 0.2 m high was added to the frontal space of the unit. As suggested above, it probably combined with its neighbor to form a composite unit.

#### Unit B

Unit B was partially excavated last season. This season expanded the excavation area to the north and confirmed anew that: (1) the unit is rectangular structure *ca* 4.5 m long by *ca* 2.5 m wide; (2) it is equipped with a vertically elongated compartment and four small circles at its back left corner and front left corner respectively; (3) a capstone is placed in the center of two of the four round features; (4) a small semi-circular feature is attached to the southern part of the front wall (**Figs. 10 and 11**). New discoveries included a small concentration of stones at the north-eastern corner of the main room and a short alignment of upright stones outside the corner (**Fig. 12**). The latter feature is common to the other two units, suggesting that it was part of the standard furniture of Complex I. Here, again,



5. 'Awja 1: plan of Complex I.



6. 'Awja 1: general view of Complex I (looking N).



7. 'Awja 1: general view of Complex I (looking SW).



8. 'Awja 1: general view of Unit A (looking NW).



9. 'Awja 1: close-up view of the southeastern corner of Unit A (looking NE).



10. 'Awja 1: general view of Unit B (looking NW).

a larger circle *ca.* 1 m in diameter was associated with the front wall at a distance of *ca.* 1 m.

### Unit C

Unit C was fully excavated last season and no repetition is needed here. We would like to only note that: (1) it is equipped with a vertically elongated compartment at its back left corner and a small rectangular feature at its front left corner; (2) it is associated with a short wall alignment *ca.* 1 m long and a semi-circular feature *ca.* 0.4 m in diameter close to the ends of the frontal wall; (3) a large round feature *ca.* 1 m in diameter is attached to the front space (**Fig. 13**).

What is important here is that the unit displays evidence for typological simplification, which takes an even clearer form in the neighboring Unit D.

### Unit D

Unit D was only part-exposed in the last field season (Fujii *et al.* n.d.). This season revealed its entirety. In the end it turned out that the unit has a rectangular plan and measures *ca.* 4.5 m by *ca.* 2.5 m in floor area (**Figs. 14 and 15**). Unlike the other three units, this freestanding example was simple in terms of divisions of indoor space, with no rectangular compartments



11. 'Awja 1: close-up view of the southeastern corner of Unit B (looking SW).



12. 'Awja 1: close-up view of the northeastern corner of Unit B (looking E).



13. 'Awja 1: general view of Unit C (looking N).



14. 'Awja 1: general view of Unit D (looking W).



15. 'Awja 1: general view of Unit D (looking NE).

being incorporated within it. Instead, three small round circles *ca* 0.4 - 0.5 m in diameter were irregularly arranged along the southern wall (Fig. 16). In contrast, the outdoor features

still maintained the 'standard' triple set, consisting of short wall alignments at the right end of the front wall (as observed from the front) (Fig. 17), a semi-circular feature near the left





16. 'Awja 1: close-up view of the southeastern part of Unit D (looking SW).



17. 'Awja 1: close-up view of the northeastern corner of Unit D (looking SW).

end of the front wall and a large circle in the front space.

As suggested in the previous report, the wall-sharing relationships between any two adjacent units, especially Units A and B, seem to indicate that the elongated complex developed gradually from ENE to WSW. The sequential simplification in the division of indoor space is also consistent with this assumption. It would follow, then, that the complex began with Unit A (and its neighboring large circle), was interrupted once at Unit C, and then restarted with Unit D but ended soon thereafter. The small gap between the last two units might possibly represent some sort of temporal gap. The series of unique traits – *viz.* the isolated location in hyper-arid terrain, the use of the two-row upright slab wall technique, the consistent combination of a rectangular structure and a round feature in front of it, and the formation of a laterally connected body of such homogeneous composite units – is

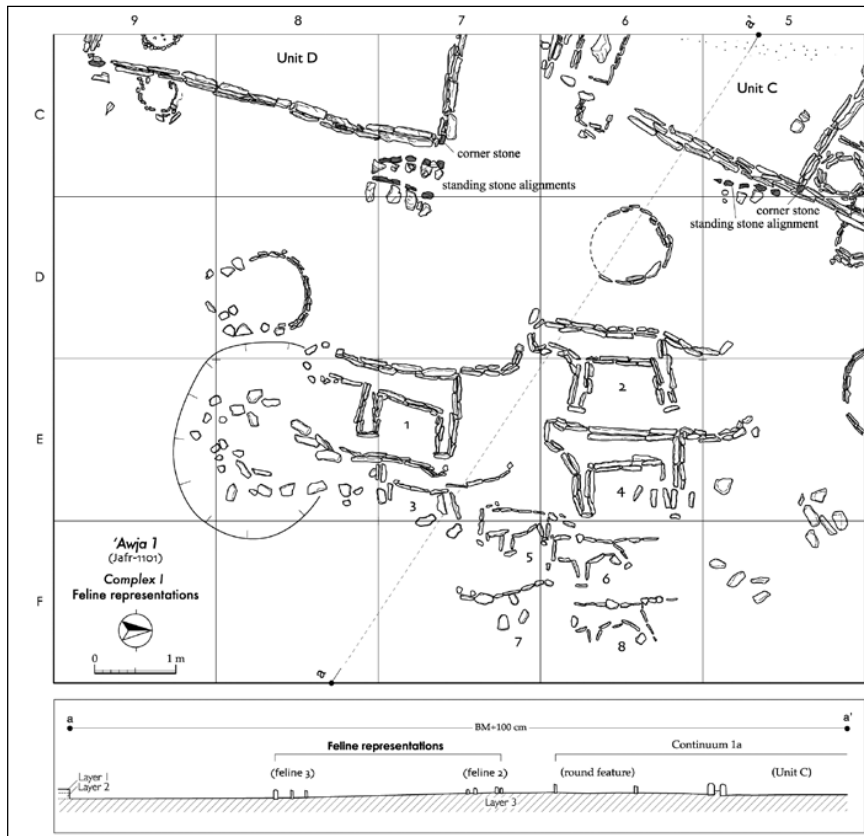
common to the Neolithic open sanctuaries in the neighboring Jafr basin as well (Fujii *n.d.*). There is no doubt that Complex I shares a similar character and date to them.

### Feline Representations

Last season's work had confirmed two short wall alignments in front of Unit C (Fujii *et al.* *n.d.*: Fig. 6). This season enlarged the excavation area and traced their extension to the east. As a result, quite unexpectedly, they turned out to a part of animal representations made using the two-row upright slab wall technique (Figs. 18 and 19). In terms of iconography, they were identified as feline animals on the basis of their overall body proportions, the absence of horns and their long tails curling only at the tip. Technologically, as with the neighboring complex, elongated construction materials were put directly on the then ground surface in stretcher bonds, and no clear evidence for clay mortar and foundation banks was recognized. The inner space of every feature was packed with silty sands including abraded flint pebbles.

The overall iconography was composed of two rows and four tiers: a total of eight feline animals were represented. The upper two tiers contained four larger felines (probably representing adult individuals), which measured *ca* 1.5 - 2 m in trunk-length, *ca* 1 m in trunk height and *ca* 1 m in tail length. The lower two tiers, on the other hand, consisted of four smaller felines (probably representing juvenile individuals) measuring *ca* 1 m in trunk length, *ca* 0.5 - 0.6 m in trunk height and *ca* 0.5 m in tail length. All of the eight felines were represented in a lateral view with their heads facing south and their long tails stretching north. Every feature was depicted in a fairly realistic manner, and the details including a long tail curling only at its roundish tip were accurately portrayed (Fig. 20). However, a large pit *ca* 2 - 2.5 m in diameter and *ca* 0.3 m in depth was dug at the southern edge of the feline representations and partly disturbed the original stone alignments of the two adjacent features and the outdoor circle belonging to Unit D.

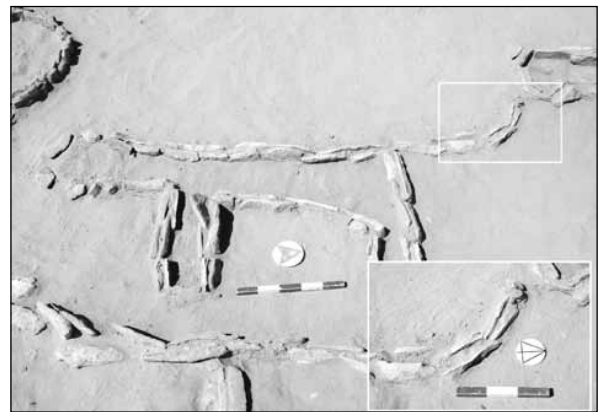
There is little doubt that the feline representations were coeval with the neighboring complex, because both share the same technology and site stratigraphy. The rough correspondence of general orientation between the two may also argue



18. 'Awja 1: plan of the feline representations.



19. 'Awja 1: general view of the feline representations (looking W).

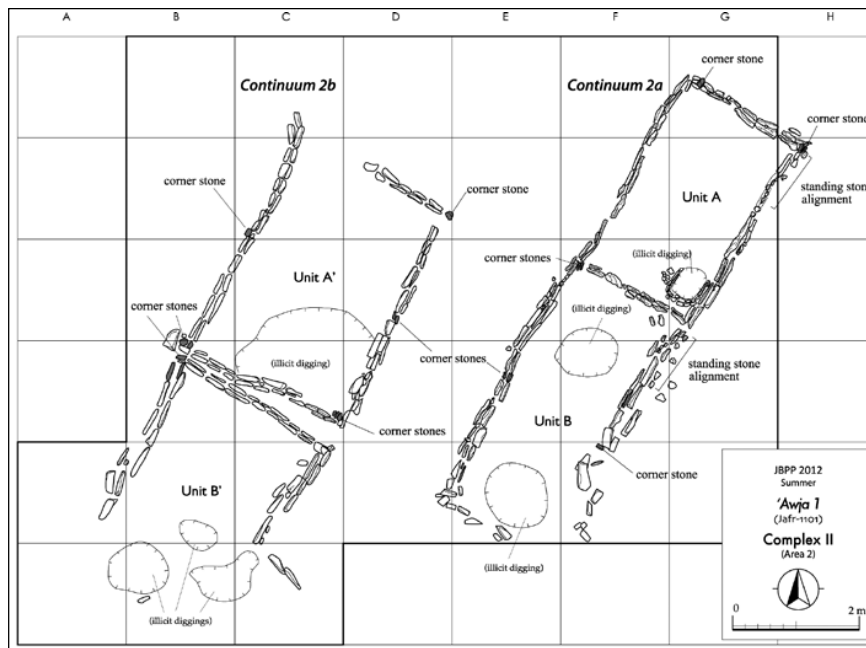


20. 'Awja 1: close-up view of the feline representations (looking W).

in favour of this assumption. Thus, the question is which of the neighboring two units (i.e. Unit C or Unit D) it belonged to, but no direct clue is available. A hint, if any, consists of the fact that large sandstone slabs over 50 cm long were sporadically used for the larger feline representations, especially Feline 4. Similar slabs are used at Unit D, albeit only sporadically, but are not used at all at Unit C. This seems to suggest that the feline representations may have been associ-

ated with Unit D, the most recent component of the neighboring complex.

Another important question concerns the specific function of the feline representations, but nothing can be said about this at our current stage of knowledge. All we can say is that they were probably related to some sort of communal ritual that took place at the site. Regardless, the concomitance of such unusual features highlights the unique nature of the 'Awja sites.



21. 'Awja 1: plan of Complex II.

### Complex II

Complex II is located *ca* 5 m south-west of Complex I. The surface cleaning last season revealed its rough shape. The excavation this season has confirmed that: (1) it consists of a pair of parallel continua that are both orientated ENE - WSW; (2) each continuum consists of two laterally connected rectangular units *ca* 4 - 5 m long by *ca* 2 - 3 m wide; (3) each unit is constructed using the two-row upright slab wall technique and incorporates several corner stones at the prescribed points (**Figs. 21 - 23**). Incidentally, last season's work identified several pebble concentrations in and around the four units, but these turned out to represent the spoil of illicit diggings.

The four units are simple in terms of division of indoor space, with internal features being limited to a small circle at the front left corner of Unit A of Continuum 2a (**Fig. 24**). However, in view of the fact that illicit diggings have focused on the south-western corner of each unit, the possibility that the other three units also incorporated similar features cannot be fully ruled out. Anyhow, the decrease or disappearance of small internal features suggests that the typological simplification observed in the last two units of the neighboring complex continued at Complex II and took on an even clearer form.

Further support for this assumption comes from the collapse of the triple set of outdoor



22. 'Awja 1: general view of Complex II (looking N).

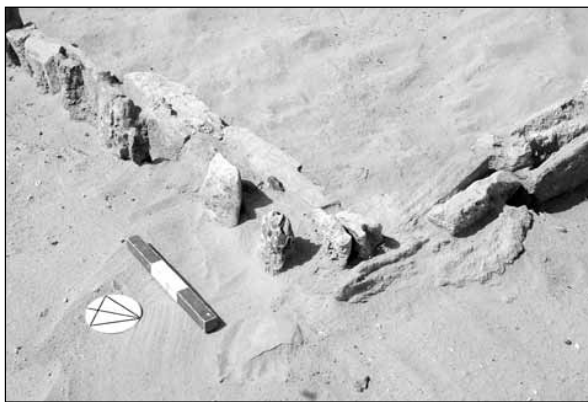


23. 'Awja 1: general view of Complex II (looking SW).

features. Although an upright stone alignment barely survives at the two units of Continuum 2a (**Fig. 25**), the other two components - a



24. 'Awja 1: close-up view of the middle part of Continuum 2b (looking W).



25. 'Awja 1: close-up view of the northeastern corner of Unit A, Continuum 2b (looking SW).

small semi-circular feature at the left end of a front wall and a freestanding round feature in the frontal space - no longer accompany them. In the case of Continuum 2b, all three components disappear. These observations corroborate anew that the four units of Complex II represent simplified and probably subsequent forms of Complex I, especially Unit D. As discussed below, this perspective provides insights into the chronological sequence of the 'Awja sites.

#### New Investigations at 'Awja 4

Unlike the other four sites which are all located on a fluvial plain, 'Awja 4 occupies the flat ridgeline of an elongated sandstone hill *ca* 0.5 km east of 'Awja 1. The site was discovered this field season and was briefly examined by means of surface cleaning. As a result, it can be said that the site includes at least three complexes aligned north-west – south-east at *ca* 10 - 20 m intervals (Fig. 26). As with the other 'Awja sites, the two-row upright slab wall technique was used for the

construction, and small upright corner stones marked cardinal points of the walls. Here again, no specific traces of actual life such as artifacts and hearths were confirmed.

#### Area 1

Area 1 (29°42.090 N, 036°24.203 E; *ca* 853 m above sea level) is located at the north-western edge of the site. It contained at least four rectangular units *ca* 3 - 4 m long and *ca* 1.8 - 2.2 m wide (Fig. 27). Three of them were connected laterally to form a continuum at least 8 m long. The continuum extends in a north - south direction, but this is probably due to the topographical constraints of the slope on which it is located (the same is true of the other continua described below). The remaining Unit D was freestanding and differed slightly in general orientation from the continuum. In this sense, we may argue that the complex bears some resemblance to Complex I at 'Awja 1. However, all four units are simple in terms of division of internal space and, in this respect, resemble Complex II (rather than Complex I) at 'Awja 1. The total disappearance of small features might suggest that it is slightly later in date even than Complex II.

#### Area 2

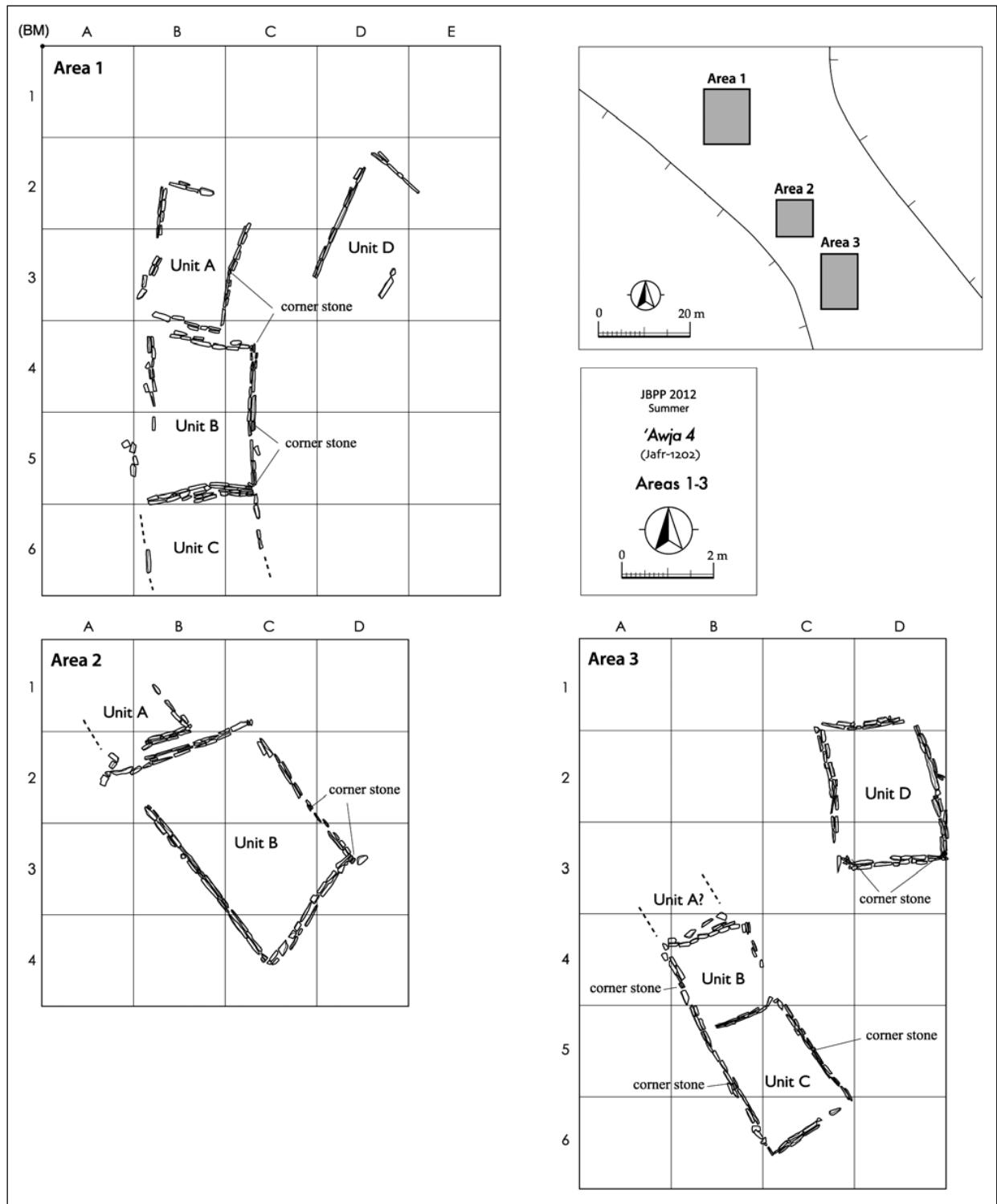
Area 2 occupies a gentle slope *ca* 20 m south-west of Area 1. This area contained at least two rectangular to trapezoidal units *ca* 4 - 5 m long and *ca* 3 m wide, although Unit A was poorly preserved and its overall character difficult to interpret (Fig. 28). Both units were connected to form a short continuum extending in a north-west – south-east direction. As with the four units at Area 1, neither of these two units incorporated any small feature.

#### Area 3

Area 3 is situated *ca* 5 m south-east of Area 2 and includes at least four rectangular units of various sizes (Fig. 29). Three of them were laterally connected to form a continuum at least 5 m long. Unit D was freestanding and separated from the neighboring continuum by a gap of *ca* 3 m. Again, none of them was associated with any small feature.

#### New Investigations at 'Awja 5

The site of 'Awja 5 (29°41.150 N, 036°26.587



26. 'Awja 4: plans of structural remains at Areas 1-3.

E; ca 817 m above sea level) is located at the southern foot of a small sandstone hill ca 3 km south-west of 'Awja 1. It was discovered for

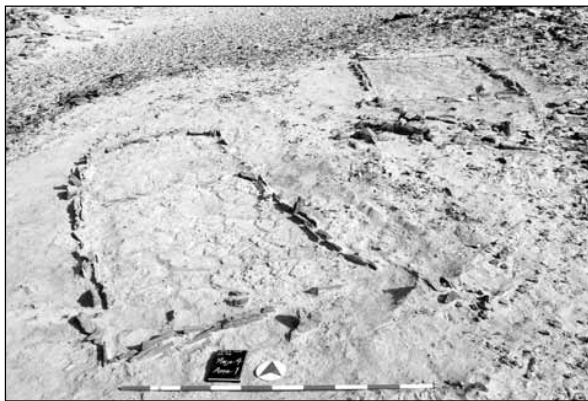
the first time, along with with 'Awja 4, during this field season and was briefly examined by means of surface cleaning. It turned out that the



27. 'Awja 4: general view of Area 1 (looking N).



28. 'Awja 4: general view of Area 2 (looking NW).



29. 'Awja 4: general view of Area 3 (looking N).

site contained a large-scale continuum with a total length of *ca* 17 m and a width of *ca* 4 - 6 m (Figs. 30 - 32). Again, the two-row upright slab wall technique was used for the construction, but with the addition of limestone cobbles as well as sandstone slabs. It is probably for this reason that many of the construction materials were found as collapse. Corner stones were used at the prescribed locations. Neither artifacts nor hearths were found.

The complex consisted of four rectangular to square units connected laterally on an approximate south - north alignment. Two of the four were each associated with a large circle to their fronts, although there is a possibility that the other two units were also originally equipped with a similar feature. In view of the wall-sharing relationships between adjacent units, it seems that the continuum began with Unit A and then gradually developed southwards.

#### *Unit A*

Unit A was *ca* 4 m long by *ca* 3 m wide. It was poorly preserved; no details could be determined except that a small stone concentration was attached to the middle of the rear wall.

#### *Unit B*

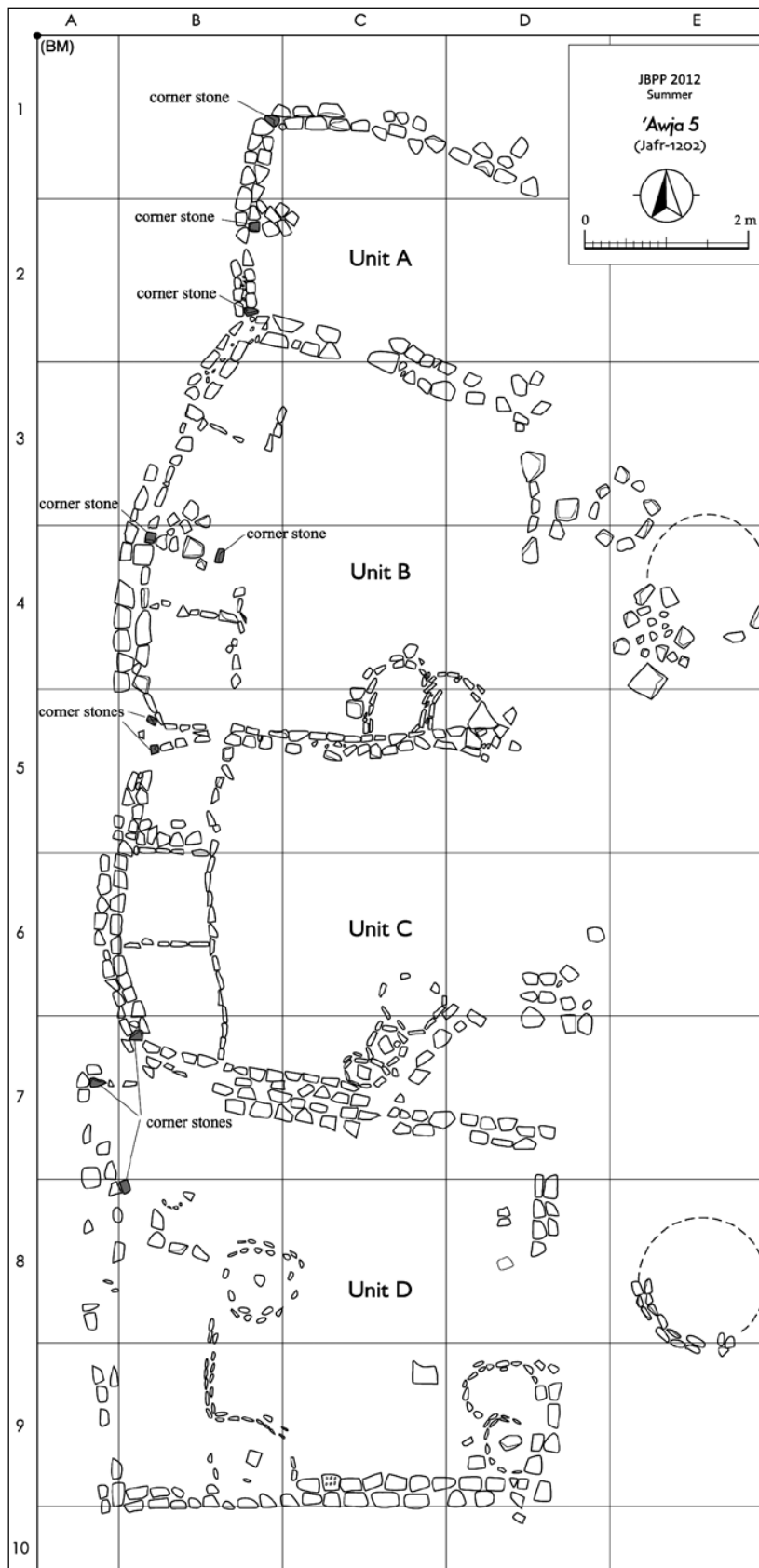
Unit B was relatively well-preserved and had an approximately square plan measuring *ca* 4.5 - 5 m by *ca* 5 m. The interior features consisted of three long compartments along the rear wall and two small circles at the front left corner. In addition, a small stone concentration existed in the central compartment. Outdoor features consisted of two circles, both of which occupied the front space of the unit and measured *ca* 0.6 - 1.5 m in diameter.

#### *Unit C*

Unit C measured *ca* 4 - 5 m by *ca* 5 m and was well-preserved except for its front half. The rear compartment was again tripartite and associated with a stone concentration along a longitudinal partition wall. Features at the front left corner included three small circles and a poorly preserved amorphous compartment. No exterior features were found, but this might be due to the serious disturbance of the front space of the unit.

#### *Unit D*

Unit D was the largest and the most elaborate of the four units, having a trapezoidal plan *ca* 4.5 - 5.5 m wide and *ca* 5.5 m deep. In contrast to the abutting Unit C, it was poorly preserved in the rear part and well-preserved to the front. The rear compartments had been shifted slightly to the observer's left, and a small compartment was newly added to the back left corner. These phenomena may possibly have contributed to the appearance of the first unit of Complex I at



30. 'Awja 5: plan of the site.



31. 'Awja 5: general view of the site (looking NW).



32. 'Awja 5: general view of the site (looking SE).

'Awja 1. In addition, a small circle was attached to the middle of the compartment. As with Unit B, a large circle *ca* 1.5 m in diameter occupied the front space.

This series of traits, *viz.* the roughly square plan, the existence of a tripartite compartment along the rear wall and a few small circles at the front left corner, and the attachment of a small stone concentration in the middle of the rear compartments, is reminiscent of a freestanding unit examined at 'Awja 2 last season (Fujii *et al.* n.d.: Fig. 12). The 'Awja 5 complex probably represents the laterally connected main space of such a freestanding unit in association with a tripartite rear compartment.

## Discussion

The supplementary investigations described here have provided further insights into the unique character of the 'Awja sites. In conclusion, we would like to briefly discuss their function, chronology and archaeological significance in a broader context.

## Site function

It is most unlikely that the 'Awja sites represent settlements, workshops, storage areas or any other structural complexes for practical use. The combined evidence, *i.e.* the isolated site location in hyper-arid terrain poor in water supply, the absence of traces of actual life (*e.g.* hearths, artifacts and faunal / floral remains), the recurring combination of an empty rectangular unit and a round feature in front of it, and the concomitance of the unique feline representations, all suggests that these structures were used as open sanctuaries or the symbolic communal cemeteries of early pastoral nomads.

Further support for this functional identification comes from the two Neolithic sites in the Jafr basin: Harat al-Juhayra (Fujii 2005) and Qa' Abu Tulayha West (Fujii 2000, 2002). Both of them share similar traits with the 'Awja sites, indicating that these unique features are widely distributed within the arid margins of southern Jordan. Their unique site formation process suggests that every unit was constructed as a ritual location for a symbolic burial that was not associated with any human skeletal remains or grave goods (Fujii n.d.). It is for this reason that we have termed these structures 'pseudo-house burial cairns', *i.e.* a symbolic burial cairn associated with a pseudo-house. The same probably applies to the 'Awja sites, because they are also marked by the combination of an empty unit (*i.e.* pseudo-house) and an empty circle (*i.e.* symbolic burial cairn).

Another question revolves around who was involved in the construction and management of these unique open sanctuaries. Although no direct evidence is available, the site location in hyper-arid terrain strongly suggests that pastoral nomads were involved. As a matter of fact, no contemporary settlements have so far been found at 'Awja or in its environs (Abu-Azizeh n.d.; Fujii and Abe 2008; Mahasneh and Gebel 2009; Tarawneh and Abudanah 2011; Quintero and Wilke 1998; Wasse and Rollefson 2005, 2006). This suggests that the 'Awja sites were used by early pastoral nomads who migrated on a seasonal basis into the arid peripheries of southern Jordan.

## Chronology

The issue of chronology is problematic, be-



cause there is no direct evidence such as C<sub>14</sub> data or diagnostic artifacts at the 'Awja sites. However, there are two clues. One concerns the chronologies of the neighboring Jafr and Negev / Sinai regions, which may serve as a general framework around which to seriate the 'Awja sites. The other is the typological sequence of the 'Awja sites themselves. Available evidence suggested that each continuum developed gradually from the observers' right to left. This perspective would enable us to trace the general trend of typological change within a continuum, which might in turn provide some insight into the chronological sequence amongst continua. By combining both methods, we propose to incorporate the 'Awja sites into the *badia* chronology as follows (Figs. 33 and 34):

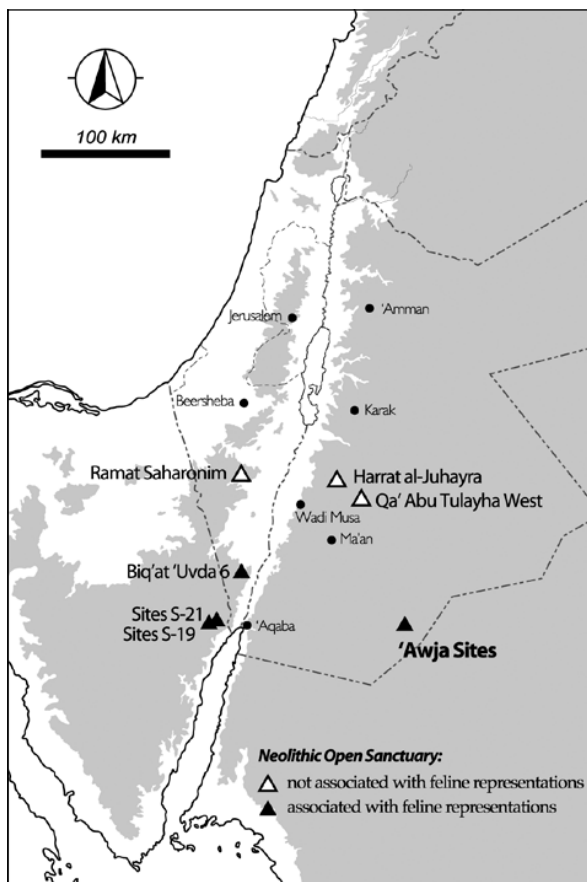
(1) The freestanding unit at 'Awja 2 is thought to be the earliest of the five sites. It resembles the freestanding unit (i.e. proto-Juhayra type units) at Harrat al-Juhayra in terms of the arrangement of an elongated compartment (or compart-

ments) along the rear wall and, for this reason, can probably be dated to the PPNC or the beginning of the Late Neolithic in a broad sense. Of interest is the fact that, unlike the Jafr example, the 'Awja unit incorporates small circles into its front left corner. A similar phenomenon has also been identified at 'Awja 5 and 'Awja 1, suggesting that it was a local tradition of the 'Awja area.

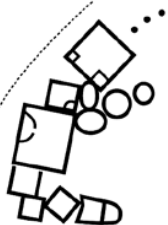

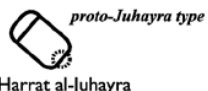
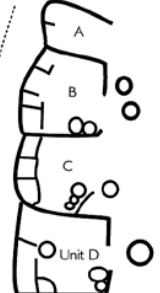
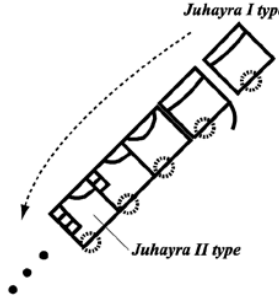
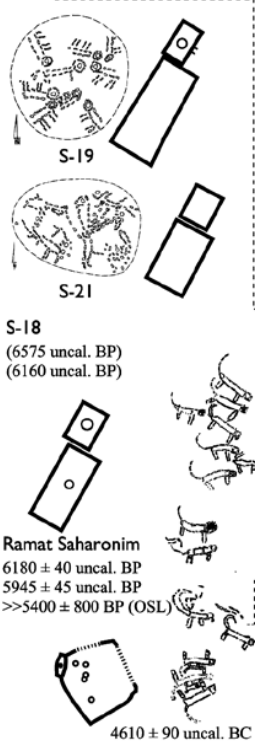
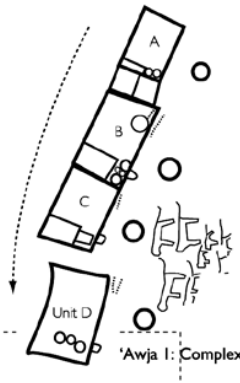
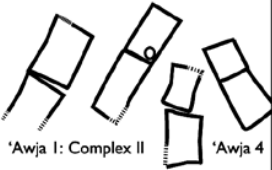

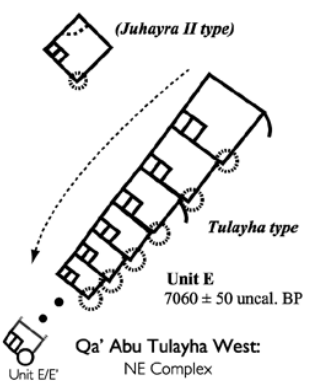
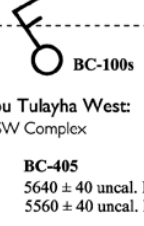

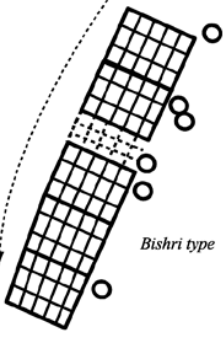

(2) There is little doubt that 'Awja 2 was followed by 'Awja 5, because the latter can be regarded as the laterally connected body of the freestanding open sanctuary at the former site. Exactly the same trend is recognized at Harrat al-Juhayra. This allows us to date the 'Awja 5 complex to the latter half of the PPNC. However, local traditions survived in both areas: while the 'Awja 5 units still incorporated small circles into the front left corner of each unit, the Jafr units remained simpler in terms of division of internal space and were devoid of such small features. Of significance are signs of typological simplification initiated at the final unit(s) at both sites. The appearance of the next-generation units can be seen as an extension of the general trend.

(3) Subsequently, the Jafr basin witnessed the replacement of the horizontally elongated compartment along the rear wall by a few rectangular compartments at the rear left corner. A single C<sub>14</sub> date from Qa' Abu Tulayha West suggests that this episode took place within the span of the Late Neolithic. The transition from 'Awja 5 to Complex I of 'Awja 1 can also be understood within the same context. (Again, its signs were recognized in the final unit of the former complex.) As with the contemporary Jafr units, the 'Awja 1 units incorporate a square to rectangular cell (or cells) within their back left corner. Thus, they probably date to the same horizon as Qa' Abu Tulayha West, that is to say the Late Neolithic. The attachment of a few small circles to the front left corner of each unit highlights the continuation of the 'Awja tradition. The feline representations can be regarded as a new cultural component associated with the final stage of Complex I. This accords well with the chronology of the Negev / Sinai, where similar features have been dated to the latter half of the Late Neolithic on the basis of a series of C<sub>14</sub> dates.

(4) The next stage is characterised by a typological simplification. The evidence suggests



33. Distribution map of the Neolithic open sanctuaries in the southern Levant.

Sinai/Negev	'Awja	Jafr	Bishri
		PPNB  Wadi Abu Tulayha	
	 'Awja 2	PPNC  Harrat al-Juhayra	
	 'Awja 5	 Harrat al-Juhayra	
 S-19 S-21 S-18 (6575 uncal. BP) (6160 uncal. BP)  Ramat Saharonim 6180 ± 40 uncal. BP 5945 ± 45 uncal. BP >>5400 ± 800 BP (OSL)  4610 ± 90 uncal. BC Biqat 'Uvda 6 4450 ± 200 uncal. BC 4450 ± 60 uncal. BC	 'Awja I: Complex I   'Awja I: Complex II 'Awja 4   'Awja 3	Late Neolithic  (Juhayra II type) Tulayha type Unit E 7060 ± 50 uncal. BP Qa' Abu Tulayha West: NE Complex Unit E/E'  Chalcolithic  BC-100s Qa' Abu Tulayha West: SW Complex BC-405 5640 ± 40 uncal. BP 5560 ± 40 uncal. BP BC-600s  Early Bronze Age Wadi Burma South 	 Bishri type Fakat Bidewy I ?   Fakat Bidewy 2 ? (* not to scale)

34. Tentative chronology of the Neolithic open sanctuary in the southern Levant.

that the evolution of the Jafr open sanctuary headed towards a partial simplification of the original shape of a preceding unit. This turning point was marked in the two final units (i.e. Units E and E') of the Northern Complex at Qa' Abu Tulayha West, which can be regarded as a prototype for the subsequent freestanding units associated only with a few pseudo-walls (Fujii n.d.). The evolution of the 'Awja open sanctuary, on the other hand, appears to have moved towards a simplification of internal space division whilst retaining its original shape. The turning point was Unit D of Complex I at 'Awja 1, which bridges the typological gap between the two complexes at the site. The three complexes at 'Awja 4 can also be dated to the same horizon, although they might be a little later in view of the complete disappearance of incorporated small features. Several C<sub>14</sub> dates from the Negev and Sinai suggest that the simplified units reached their peak in the latter half of the Late Neolithic. Meanwhile, the evidence from 'Awja 3 suggests that the 'Awja area subsequently returned to the Jafr tradition.

#### *Archaeological implications*

The discovery of the 'Awja sites has two main archaeological implications. First, it has considerably expanded the known distribution of this unique type of open sanctuary to the south, thereby bridging the cultural gap between the Jafr Pastoral Neolithic and the Negev / Sinai Pastoral Neolithic. Second, as a result it has now become possible to deal with the process of pastoral nomadization in both areas within a unified chronological framework. Our recent investigation in central Syria demonstrated that the open sanctuary culture reached the northern half of the Levantine *badia* (Fujii n.d.; Fujii et al. 2013). Similar sites are also anticipated in north-western Saudi Arabia. In this sense, the open sanctuary has the potential to shed new light on the process of pastoral nomadization across the entire area of the Levantine *badia*.

The feline representations discovered at 'Awja 1 are another notable feature of the 'Awja sites. All of the four known examples of this type of site – viz. 'Awja 1, Site S-19 and Site S-21 in the north-eastern corner of the Sinai Peninsula (Eddy and Wendorf 1999), and Biqat Uvda 6 in the south-eastern Negev (Yogev 1983; Avner

1984; Goring-Morris 1993) – are not only concentrated within a limited geographical area on both sides of the rift valley, but also consist of simplified types of open sanctuary. In contrast to this is Ramat Saharonim in the central Negev, which has similar structures but these are not associated with representations of felines (Rosen et al. 2007). Contemporary Jafr sites also differ from the four known sites in that they are devoid of both similar structures and feline representations. Considered in this light, we can argue that the feline representations belong to a short-term subculture of the southern margins of the Levantine *badia* dating to the latter half of the Late Neolithic. Available evidence suggests that these unique features began at Unit D of Complex I at 'Awja 1, and then spread westward along with a short complex consisting of a simple twin unit. The specific use of the feline representations remains uncertain. All we can suggest is that they were probably associated with some sort of communal ritual linked to early pastoral nomads. Further study is needed to shed more light on this intriguing phenomenon.

#### **Concluding Remarks**

The series of supplementary investigations at the 'Awja sites described here has contributed to the establishment of a tentative chronology for the Neolithic open sanctuary, being a key to tracing the process of pastoral nomadization in the Levantine *badia*. Another unexpected result has been the discovery of the unique feline representations, which has bridged a cultural gap between Late Neolithic southern Jordan and the contemporary Negev / Sinai. In so doing, it has shed new light on the post-PPNB socio-cultural dynamics in the arid margins of the southern Levant. However, much still remains obscure, including the specific use of these unusual representations. We are keen to continue our efforts to realise the archaeological potential of the Jafr basin and surrounding areas.

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