

EXCAVATIONS AT THE PPNA SITE OF WF16: A REPORT ON THE 2008 SEASON

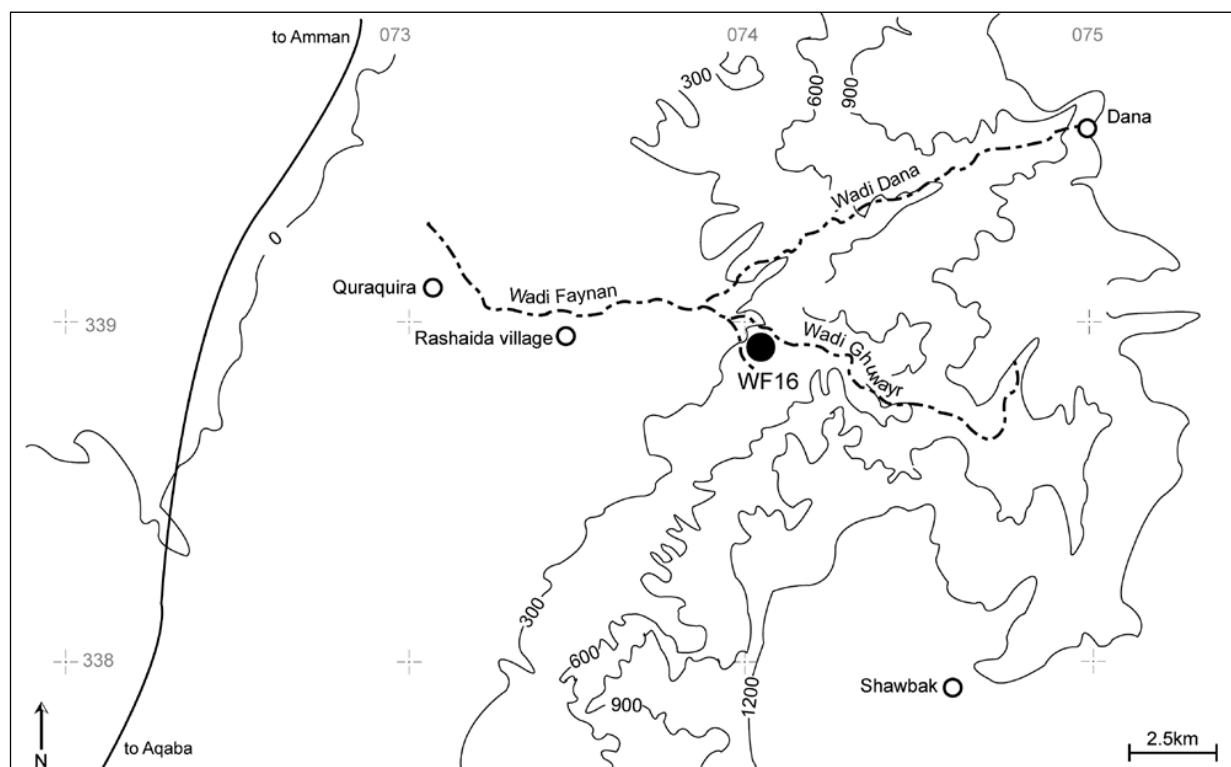
S. Mithen, B. Finlayson, M. Najjar, E. Jenkins, S. Smith, S. Hemsley, D. Maricevic, N. Pankhurst, L. Yeomans and H. al-Amarat

Introduction

The excavations at the Pre-Pottery Neolithic A (PPNA) site of WF16 in Wādī Faynān, southern Jordan (36R 3390442N 0739824E) (**Fig. 1**) have been designed to address core issues related to the transition from hunting and gathering societies to farming, principally concerning the extent to which wild plants were cultivated and animals managed, whether communities were mobile or sedentary, and the nature of key cultural developments. Previous work at WF16 (Finlayson and Mithen 2007) had demonstrated the importance of the site in terms of its potential to address these research questions, but had

confirmed the need to open a large area of the site. This is essential to ensure sufficiently large samples of artefacts, faunal remains and botanical material are recovered to address these issues, and in order to be able to investigate spatial and chronological patterning within the site.

With funding from the Arts and Humanities Research Council UK, a three year programme of excavation has been designed with field seasons in 2008, 2009 and 2010, followed by a separate conservation season. The project is co-directed by Finlayson, Mithen and Najjar, and employs Smith as Project Manager and Jenkins as Data Manager. Four professional archae-



1. Location of WF16 in relation to modern settlements.

ologists are employed as area supervisors, Sam Hemsley, Darko Maricevic, Nick Pankhurst and Lisa Yeomans. The project will focus on excavating a single trench, 15 by 40m., that covers the central area of the PPNA settlement as identified by the evaluation project (Finlayson and Mithen 2007). This report summarises the preliminary field results of our first field season during which Haroun al-Amarat acted as the Department of Antiquities (DoA) representative.

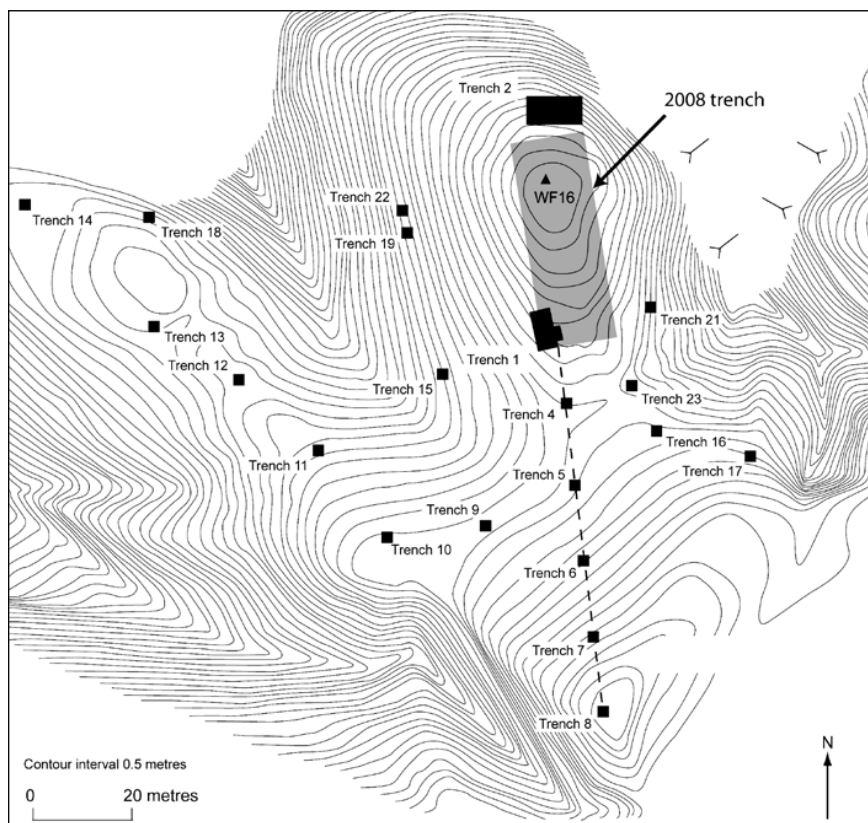
Methodology

The first field season at WF16 took place between 10th March and 19th April 2008. In total, 30 archaeologists and six volunteers worked on the excavation. In addition to the four area supervisors, six professional archaeologists were employed as site assistants, along with a surveyor, finds processor, environmental sampling supervisor, nine students and 20 local *bedouin* workmen.

A single trench measuring 15m x 40m was opened up at the beginning of the season (Fig. 2). An initial overburden of loose, mixed material ~ 0.1m thickness was removed using mat-

tocks, shovels and trowels. The trench was divided into four areas for excavation and a 5m x 5m grid laid out for sampling. The overburden was very rich in PPNA artefacts, suggesting that it represents deflated PPNA occupation material. In general, the overburden was thickest to the west and east of the trench and was thinnest on top of the knoll.

A single context recording method was used during the excavation, as developed in the 1970s by Museum of London Archaeological Services (MOLAS). The basic unit of record in this system is a *context* which can be either positive (for example, a wall or a deposit) or negative (for example, a cut). In this report context numbers are given in brackets and prefixed by a 'C'. Each context was given a unique number, recorded using a context sheet, planned at 1:20 and recorded with a digital camera. A Harris Matrix is employed to aid in understanding how these contexts are related (c.f. Harris *et al.* 1993). Contexts are then grouped into features, for example, a burial will consist of a cut, at least one matrix fill and the skeletal elements, all of which will be individual contexts. A single running list



2. Plan of the WF16 knoll showing 2008 trench in relation to evaluation trenches.

of features was created, for convenience different prefixes are used to refer to the numbers, 'S' for structure, 'B' for burial, 'H' for hearth and 'M' for midden.

A database designed specifically to manage complex stratified deposits and their associated finds, the Integrated Archaeological Database (IADB), was used to record all site records. The IADB has forms which replicate the context and sample sheets used on site; each day the supervisors entered their records. Plans were scanned and digitised into the IADB; finds were also recorded directly into the IADB. At the end of the season all information generated from the 2008 field season had been digitally recorded. In addition to the single context planning, the whole trench was planned at 1:20 at the end of the season.

A comprehensive sampling strategy was used at the site. Where possible, a 30 litre flotation sample was taken from each context and processed using a flotation machine. If the context was less than 30 litres an archive sample was taken (see below) and the rest of the context was sampled for flotation. If the context was large or if it contained potential botanical remains a greater quantity of sample or multiple samples were taken. In total, 420 flotation samples (6825 litres) were processed during the 2008 season. Two flotation machines were needed to keep up with the number of samples generated. Each machine consisted of a 55 gallon oil drum and two settling tanks. Due to water shortage problems in the region, water was recycled using filters and the barrels cleaned every day, with the whole system fully cleaned every week and refilled with fresh water. A 300 μm mesh was placed inside the barrel to catch the heavy residue; mesh bags with chiffon sides and a base made of 0.25 μm mesh were used to catch the light fraction. Both the light fraction and the heavy residue were dried in a specially designed drying tent out of direct sunlight. After drying the light fraction was re-bagged, entered into the IADB and crated for storage. The heavy residue was sieved into 4mm, 2mm and 1mm fractions and sorted for finds by local workmen. The 4mm fraction was 100 % sorted, while the smaller fractions were sub-sampled according to overall size of sample. These finds were then entered into the IADB, bagged and crated for storage.

Archive samples of approximately 2 litres were taken from each context so that future chemical analysis can be conducted if necessary. Brown paper bags were used to store the 296 archive samples collected in the 2008 season. Any sediment not taken for flotation or for archive samples was dry sieved on site by the workmen through a 2mm mesh, resulting in a total of 35,263 sieved litres. The amount of sediment sieved was recorded using calibrated buckets. This material was then sorted off site by workmen looking for finds. Information about the finds was then entered into the IADB, before they were bagged and crated for storage. 70 phytolith samples were taken from selected contexts only. Burial fills were always sampled, while other contexts such as hearths, pits and intact floors were chosen at the supervisor's discretion. 4 gm samples were taken from within a context and a clean trowel was used to collect the sediment. A micromorphology sample was taken from Structure S11 (C125).

Similar abbreviations to those used for features were created for finds, with 'SF' denoting special find (a find that was of sufficient enough interest to be recorded and bagged separately) and 'BF' bulk find (finds such as chipped stone, or unworked animal bone which were bagged together according to context and sample number). In total, 3,410 bags of bulk finds and 564 bags of small finds were collected.

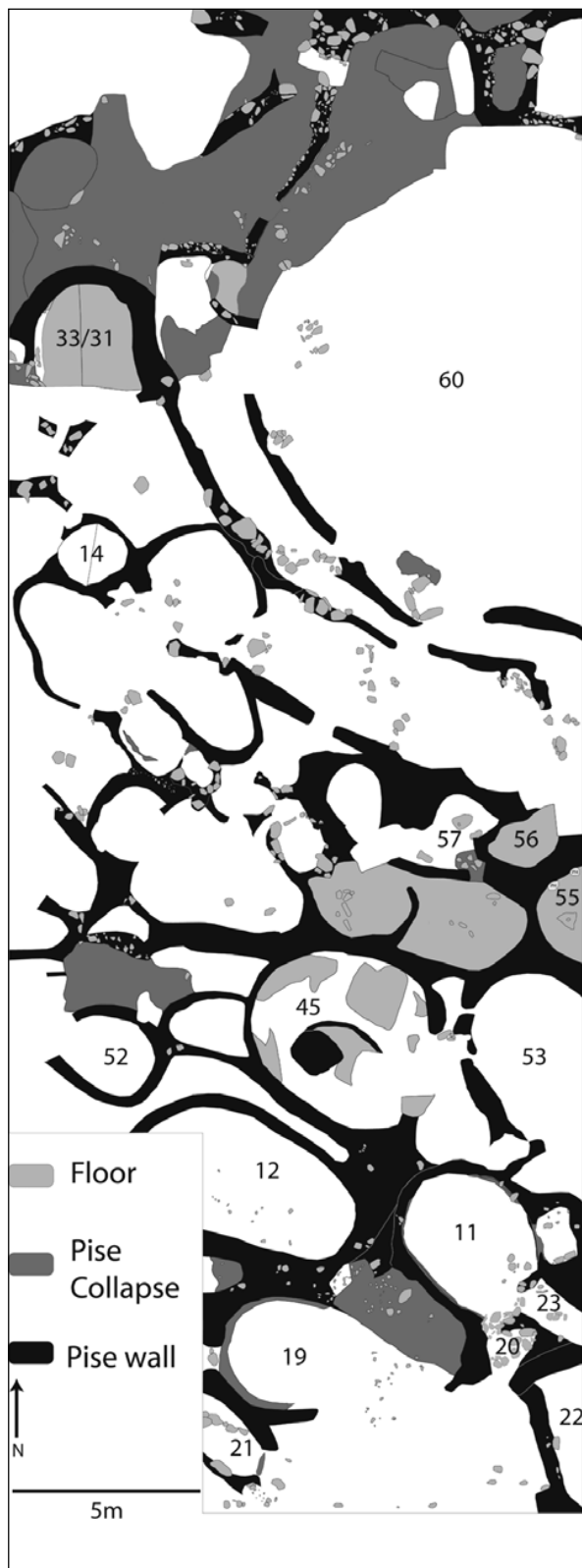
Overview of Excavation

Figure 3 shows a general view of the trench and Figure 4 a multi-context plan of the trench at the end of the 2008 season.

The following section provides a brief over-



3. The 2008 trench looking north.



4. Simplified multi-context plan of WF16 at the end of 2008 field season, showing structural remains; numbers refer to structure numbers.

view of the PPNA archaeology uncovered during 2008. Several features were identified in the overburden. These were mostly stone features. At the southern end of the trench, two cup-hole mortars (SF1 and SF31) were discovered immediately below the surface. These later proved to be central to structures (S10) and (S11) respectively. One robber pit (C3) was identified on the surface of the site, apparently targeting a partially exposed archaeological structure (not excavated in 2008), the stony element of which was visible on the surface. Further to the north were a series of stony features, with particularly dense concentrations of stones in the easternmost squares (C184, C185, C63), which may have been robbed out graves (although no human bone survived) or natural accumulations of stones in shallow hollows. The fills of cut features were difficult to identify in the loose upper sediments. The lack of post-PPNA artefacts is remarkable given the rich archaeological history of the Wādi Faynān region.

After the overburden had been removed, the outlines of several sub-circular, yellowish-brown arcs of pise walling were apparent across the trench, most clearly seen in the south (Fig. 5). These arcs were similar to the PPNA pise walls discovered in Evaluation Trench 1 (Finlayson and Mithen 2007). Deposits of possible pise collapse, midden material, and stone / rubble dumps were also visible at this level, mostly located towards the north of the trench. The removal of these during the season began to expose further pise and stone arcs in this area. A further notable feature was the presence of many small cuts, which were of a size and shape suggestive of burials; these were concentrated towards the central area of the trench. It was often unclear if cuts had been cut from this level, or had been cut through overlying, deflated levels.

Several of the arcs of pise formed recognisable and coherent sub-circular outlines, which we interpreted as probable PPNA structures. These were assigned structure numbers (Fig. 4). In total, 16 such structures were identified during 2008. As is clear from Figure 4, it is very likely that many other structures are present within the trench, but as further excavation is required to define their outlines, they were not assigned structure numbers during the 2008 field season.

A range of excavation techniques were em-



5. Detail of southern portion of trench, showing excavation of structures (looking north).

ployed in order to investigate the identified structures. The contexts within structures were removed in stratigraphic order, in some cases in single context levels from the whole interior, whilst in other cases internal deposits were removed in quadrants, to provide a higher degree of spatial resolution and to examine vertical sections. In one case a quadrant was removed more rapidly, in order to determine the depth of surviving walls. We have, as yet, a very limited understanding of the stratigraphic relationships between structures and, given the uneven deflation at the site, the degree to which these structures may be contemporary or not remains unclear at present. Moreover, the limited excavation of most of these structures leaves many questions regarding the construction techniques, life histories and function of the structures unanswered. Understanding stratigraphic relationships is also hampered by the facts that structures appear to have been rebuilt and remodelled during their lives, and that walls are shared between structures.

The following sections will provide more detail on the results of the 2008 season, focusing on structures, burials and a possible community rubbish dump. The type and quantity of finds recovered during 2008 will also be discussed.

PPNA Structures

There was considerable variability in the archaeology initially exposed in the northern, cen-

tral and southern parts of the trench. Although deflation has affected the entire trench, structures in the upper levels are better preserved in the south than in the centre, which, as the highest part of the knoll, may have been most affected by deflation. Towards the south of the trench the arcs of pisé were clearly identifiable as a series of juxtaposed structures. From the surface, these structures appear relatively similar: they are all relatively large ~4m in diameter, sub-circular structures large defined by yellowish brown pisé walls around 0.3m thick. In this area, at least eight such structures, along with several other structures, were identified. In the northern half of the trench, structural remains were originally less clear. In the central part of the trench this is partly because of deposits of pisé collapse which obscured underlying structures, partly because the small pits - including several which proved to be burials — were at their highest density in this area, and partly because the pisé structures exposed appeared to be more complicated, multi-cellular structures. The remains in the north were different again, resolving into a number of pisé and stone structures, several of which had been truncated by the excavation of a large midden pit (S60).

Even in the south, stratigraphic relationships between structures remain unclear at present. However, the nature and detail of pisé walling allied to some initial stratigraphic interpretation, suggest that the latest phase of well-preserved

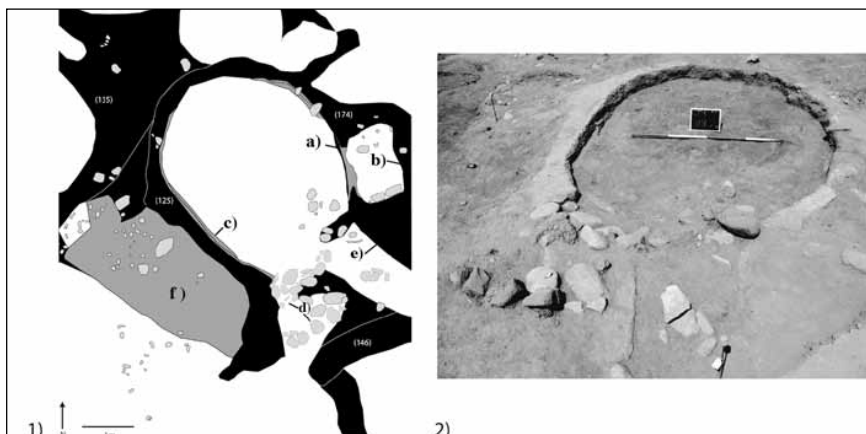
structural activity appears to be represented by structures S11 and S53 (Fig. 4). These share a connecting wall (C56) and are constructed of a similar colour pisé (paler than other structures); their interior walls appear to have been lined with a white mud plaster. At present it is not clear how these structures relate to most of the other structures (S55, S56, S57, S45 and S52), although in the very south of the trench it seems likely that structure S11 post-dates the construction of adjacent structures S12 and S19. Because structure S11 appears to represent a rebuild of an earlier structure on the same footprint (see below), it is possible that structures S12 and S19 may have been contemporary with the earlier phase of S11. A shared rubble buttress (C133) which fills the gaps between these structures supports this interpretation.

An example of the complexity of the PPNA structural archaeology at the site can be gleaned from more detailed examination of structure S11, which indicates a complex history of use and remodelling (Fig. 6).

The pale yellowish brown pisé wall (C125) of structure S11 was clearly revealed very high in the sequence, appearing to define a sub-circular structure approximately 4m in diameter. During removal of overburden, SF31 a cup-hole mortar, was identified and appears to have been set upon patch of floor surface (C130), central to the structure. This provides clear evidence that deflation has removed upper levels of PPNA occupation in this part of the site. In order to detect the presence of other possible ephemeral floor surfaces within the fill of the structure, we removed the remaining infill in quadrants, allowing examination of deposits in section.

The upper contexts initially appeared to be homogenous mid grey brown sandy silts. However, examination of sections revealed more variability within these contexts, which included occasional lenses of patchy laminated sediment together with small lumps of pisé. The presence of successive laminations suggests a relatively slow filling of the structure. Lower in the sequence, context C181 contained a large concentration of burned stone and partially articulated bird bone, perhaps several raptor carcasses (formal identification pending). Below this context and a layer of silt (C466), we discovered a more substantial floor surface (C462). This was a firm but patchy pisé floor apparently worn away towards the centre of the structure. Below this, a further series of laminated floor surfaces were noted at the southern edge of the structure. It is probable that that these floors relate to an earlier structure on roughly the same footprint as S11 as, at the same level as these floors, a band of pisé (possibly denoting an earlier wall alignment) was noted protruding 0.05m out from the western internal wall face of wall (C125).

The internal face of wall (C125) appears to have been coated with a white plaster material. This may represent a deliberate whitewashing or plastering of the walls but, in the absence of specialist analysis, it remains possible that this was a post-depositional phenomenon. Elsewhere in structure S11, a patch of dark, potentially burned pisé (C473) was found adhering to the inner face of the wall, overlying the white-wash. The remodelling effected by the addition of (C473) appears to have served to reduce the floor area of the structure and may be associated with a phase of remodelling, during which a se-



6. Structure 11: (1) Plan showing features discussed in text - (a) blocking, (b) cell or annex, (c) pisé step / wall line, (d) stone structures / blocking, (e) corridor / (?) entrance and (f) buttress; (2) Photograph of structure 11 during excavation, looking north-west.

ries of small stone structures (S20) were built to the south of the S11, possibly blocking an earlier entrance. The function of these small stone structures is unclear, but the presence of ashy silt amongst the stones may suggest that these structures served as ovens or hearths associated with S11. Perhaps also associated with this phase of activity is structure S22, which may represent a new entrance way or corridor into S11. In addition, to the north-west of S11 and apparently of the same build was a sub-rectangular wall (C174), which may represent a small cell or annexe of S11. This preliminary interpretation of the history of S11 underscores the stratigraphic complexity of the site.

Structure S45 is also located in the southern area of the trench and is the biggest so far identified. It is a ~5m diameter, almost circular structure defined by pisé walls (C245). In the centre of the structure, a well-preserved hearth (C248) was formed of moulded pisé. Structure S45 is cut by a probable Byzantine grave [C262], the section of which showed a sequence of PPNA archaeological deposits at least 1.5m in depth.

In the centre of the trench, work was slowed by the need to painstakingly excavate numerous burials. Consequently, the structures in this area remain largely undefined and take the form of a rather complex series of pisé arcs, some of which may define a number of juxtaposed small structures (diameter <2 m). These may be the remains of larger, multi-celled structures. A feature of note in this area is structure S14, which is significantly smaller and has a lining of thick yellowish mud plaster, perhaps suggesting that this may have served as a storage pit.

Further north, following the removal of overburden, a number of walls sections were identified. These appear to represent the deflated remains of later PPNA structures overlying better preserved PPNA deposits. We excavated the north-west quadrant of a structural sequence (S31 / 33) to some depth (**Fig. 7**). Very close to the surface were the remains of a burial (B3), lying within the upper fill (C67) of the structure (S31) defined by curved pisé wall (C381). Below this fill was a small area of a mud plastered floor comprised of thin laminations (C94). Wall C381 is clearly part of an earlier structure (S33). Sealed by the floor surface (C94) was another burial (B7). The remaining deep fill, compris-



7. Structure 33 at end of 2008 season, looking east.

ing blocks of pisé or mudbricks, was excavated down to another floor level (C380) constructed of light grey silty clay with a number of finds on its surface. These included a long polished stone implement, two hammerstones and a bone point. The floor surface lipped up over the edges of the pisé wall to the north, and over the edge of a group of stones in the western corner of the quadrant, which may represent the blocking of an entrance, suggesting that the layout of the structure was altered. The clean fill appears to represent a deliberate levelling of the interior.

Near S31 / 33 are further structures, incorporating more stone than those to the south. These have not yet been fully excavated and interpretation is hampered by the fact that several of the walls in the eastern half of the trench appear to have been truncated by a cut (C379) which defines the edge of the large midden S60.

A Community Rubbish Dump?

An important feature uncovered in 2008 was a rubbish dump or midden (S60) which dominates the north-eastern area of the trench. The area within the trench is a large semicircle ~20m diameter, which continues under the eastern baulk. It was not always possible to excavate the individual dumps within the midden and where individual contexts could not be identified, it was excavated in spits within the 5m divisions of the grid, thereby providing some spatial control and chronological subdivision.

To the north, the midden had accumulated within a large cut (C379) truncating an earlier structure to the west. Further south, it is currently unclear whether the midden is filling a cut through pisé walls, or whether the midden is

bounded by a free-standing pisé wall. The midden extended up to the northern limit of excavation where it was deposited over structures in the north-western corner of the trench.

The midden has so far been excavated to a depth of ~0.5m, producing a substantial quantity of finds including chipped stone and animal bone. Also present were numerous beads, fragments of worked bone, marine shells, ground stone and incised stone fragments. The majority of the midden sediments were dark grey brown loose silts with various internal features including a number of dumps of stones (e.g. C194), most of which were fire-cracked and are probably hearth waste, with one large mound of larger stones which may represent building material. These stone dumps seem to have accumulated in the midden as it was building up, rather than as single events. The midden was not just a waste dump, but also an activity area. Along its edge, where the earlier structures had been truncated, the deposits had been scorched. Crushed, burned snail shells also indicate *in situ* burning and trampling within the midden. The midden also contained human remains and more structured features such as hearths. Under the stones forming context (C116) and under midden layer (C100), the bones of an articulated human foot (C120) were found. A few other bones were present but not articulated. There was no sign of a cut and the bones probably represent part of a disturbed burial that was subsequently dumped into the midden.

At the base of the lowest spit of midden removed in 2008, a hearth (H16) consisting of a circle of stones measuring 0.35m x 0.32m was discovered. Stones used in the hearth included angular pieces of porphyry and smaller quantities of flint and granite; all of the stones showed heat damage from use of the hearth. Half-sectioning the hearth exposed a single fill of 90 % charcoal. Since the charcoal had not turned to ash, the fire in the hearth may have been extinguished rather than left to go out. Immediately to the east of the hearth was a burial (B17). The adult skeleton was lying on its right side in a crouched position with the head facing to the west.

Positioning this large rubbish dump in the centre of the settlement, and cutting through the existing hard pisé walls to set it there, suggests

a major investment in time and energy; perhaps the construction of this feature represents a community level planned activity.

Burials

In total, 27 burials were found as well as two possible robbed out burials and numerous finds of disarticulated human remains that were not associated with burial cuts. At least two of the graves were later intrusions, Burials B25 and B63, which are thought to be Roman / Byzantine. In the majority of cases the top part of the burial had been removed by deflation so that the top of the burial cut was lost. This makes it difficult to be absolutely certain as to their date, but, based on the positioning of the skeletons and the general character of the burials most compare well with burials from other PPNA sites. Most of the graves contained single inhumations but at least two were multiple burials. Many of them had been modified and rearranged after the primary burial, sometimes with secondary skeletal remains added. Burials were closely associated with structures and were often cut through the walls or under the floors. In this preliminary report we focus on three burials that were found during the 2008 excavation season which have particularly interesting characteristics.

Burial B32 was the first excavated and it contains the greatest number of individuals. This burial was initially identified as a deposit of ten large cranial fragments (C25 - 29 and C31 - 35). The top crania (C25 - 29) appear to have been carefully stacked. It is not known if any of these crania belong to the individual in the primary burial below (C20), *viz.* a crouched adult inhumation in a north-south orientated rectangular burial pit (C12) which cut the interior edge of a pisé wall (C278). The pit had been recut and the primary skeleton rearranged when further skeletal remains were added. The primary skeleton lay on its right side with the right leg remaining *in situ* flexed towards the chest so that the knee met the right elbow. The position of the right hand suggests that the right hand might originally have been placed underneath where the skull would have been if still articulated. Only the upper portion of the left arm survives *in situ* and the position of the lower arm or hand is unknown. The position of the left leg was presumably in a flexed position because there is

no place within the cut for any other articulated arrangement. Several objects were found in the burial, including a bird bone (SF106) and a flint core (SF114), but it is unclear if these were part of the primary inhumation. Our current interpretation of events is that the skull and mandible were removed from the primary skeleton, with the long bones of the left leg and the tibia of the right leg being moved from their original position and crossed over each other in the region where the skull would have been.

Burial B39 started as a smallish rectangular burial pit (C304) which may have contained a primary burial, but a recut (C293) truncates it through the middle and no articulated human remains were found within the fills of the primary cut. The bones of a skeleton (C271) were placed in a semi-articulated state in the recut burial pit. Before the bones were placed, a lump of gypsum was positioned against the eastern edge of the new pit (C293). The lump (C296) measured 0.21 x 0.12 x 0.10m and was capped with some orangey sandy material (C295). The lowest bones present were in the western part of the recut and included hand and finger bones, a femoral head and a tibia fragment. The west corner contained the remains of the radius and ulna, perhaps with the hand and finger bones placed under the skull. This is not entirely clear as large parts of the overlying remains had to be lifted as a block. A fine flint blade and three other chipped flint pieces (SF333, SF334, SF336) came from this part of the back-fill. The skull and mandible were positioned above, next to the gypsum lump (C296). The skull faced northwards and the front teeth rested against the pelvis. There were some traces of possible gypsum coating on the pelvis. Next to the pelvis was a femur with its head disarticulated and also possibly coated in gypsum. The shaft of the femur together with some other bones were coated in a more substantial gypsum substance, which had clear impressions of basketry on its outer face (Fig. 8, right). This suggests that the gypsum paste was applied either onto the bones or, more probably, onto the inside of a basket or a wrap which then held the bones. The whole arrangement was partially back-filled at which point a cloth or a bag containing gypsum paste was placed against the back of the skull.

Burial B7 was cut (C102) through the floor



8. Burial B39 showing possible basketry impressions in plaster.

(C94) of structure S31. This structure was one of a number of heavily eroded structures that had burials cut through the floor. The skeletons are presumably preserved because they would have been lower than the structures they relate to. B7 was a single undisturbed PPNA burial and contained an adult buried in a crouched position (C82), lying on its left side with the head to the north. The cut for the burial was a clear sub-circular pit through the fill sequence of the building below (Structure S33).

Finds

No specialist analyses have yet been made of the artefacts, but it is possible to provide a general overview of finds from the 2008 season based upon field observations.

Almost all the finds appear to be PPNA. Very few clearly later / earlier finds were recovered. Most of these came from the later burials B63 and B25 and overburden contexts. The PPNA

material cultural assemblage is very rich and supports the analyses of the previous evaluation (Finlayson and Mithen 2007).

Chipped Stone

A large (>100,000 pieces) chipped stone assemblage has been recovered. This appears to be a bladelet based industry dominated by diagnostic PPNA tool types, including El Khiam points and perforators. There are some indications that the assemblage from the midden — which was very dense — contains fewer pointed artefacts than other areas and is dominated by larger flake based tools and chunky debitage. Specialist analysis of the chipped stone assemblage will begin during 2009.

Ground Stone

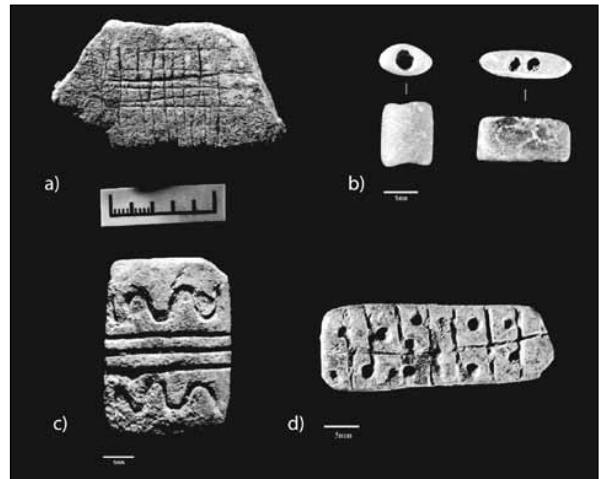
A large range and quantity of groundstone was recovered. This included many classic PPNA types such as cup-hole mortars. Additionally, many platters, vessel fragments and pestles were recovered. Some of the groundstone is of a very high quality, showing signs of delicate and intensive polishing. The midden (C60) contained a particularly high concentration of groundstone and also yielded evidence for on-site manufacture of groundstone, in the form of roughouts, and manufacturing debitage.

Beads

A significant number of beads (>100) and pendants were recovered during 2008. These include pieces made on greenstone (malachite) and shell. Bead types include small spacers together with larger beads with both single and double perforated forms (Fig. 9b). Significantly, many unworked shells as well as unworked / partially worked pieces of greenstone were also recovered, indicating that beads may have been manufactured on site.

Incised and Decorated Objects

A total of 45 decorated or incised stone objects were recovered during 2008. These ranged from elaborately decorated pieces to objects with a single (possibly natural?) incision. Of special note are SF332 (Fig. 9d), a domino-like decorated small plaque, and SF82 (Fig. 9c), a small greenstone plaque with an interesting motif that is strongly reminiscent of a similar arte-



9. Artefacts from 2008 excavations at WF16 - (a) incised stone (SF264), (b) beads (SF496 and SF193), (c) and (d) decorated plaques (SF 82 and SF332).

fact found at PPNA Netiv Hagdud (Bar Yosef and Gopher 1997). SF238 (Fig. 10) is a small limestone sculpture depicting a human face. On the reverse of the piece is another human face, this time in an upside down position. To our knowledge this is the only double-faced human head yet discovered from the PPNA, although small stone sculptures depicting single human faces have been found at several large PPNA sites such as Mureybet (Cauvin 1977), Jericho (Kenyon and Holland 1981) and Jurf al-Aḥmar (Stordeur 1997).

Other Artefacts

A range of typical PPNA material culture was recovered from the site. This included worked bone items, including several needles or pins, unworked marine shell and a range of perforated stones and several 'shaft straighteners'.



10. Three views of sculpted (?) limestone head (SF 238), showing both human faces.

Faunal Remains

A large assemblage of animal bone was also recovered, comprising more than 1,000 bulk find bags. The assemblage includes both large and micro fauna. The majority of this material was recovered from the midden.

Archaeobotanical Remains

407 archaeobotanical samples were generated from the flotation process, 402 from the light residue and 5 from the heavy residue. In addition, 12 further samples were collected from the dry sieve. These remains unsorted, but based on the material found in the evaluation, they are likely to contain charcoal, seeds and other macrobotanical remains.

Summary and Future Plans

This first season of excavation at WF16 has been highly rewarding, confirming the inferences regarding the quality of preservation and richness of the material culture made during the evaluation project (Finlayson and Mithen 2008). It is however the case that the architecture has proved to be more substantial and well preserved than had been anticipated. The number of burials and large extent of the midden exceeded our expectations and further demonstrate the overall significance of WF16 for understanding the origins of the Neolithic. The value of excavating a PPNA settlement at this scale is readily apparent.

It is clear from the depth of stratigraphy, especially as revealed by the sections of later burials cut through the PPNA deposits, that the site has a long history, the extent of which will hopefully be established during the 2009 and 2010 excavation seasons. While the contemporaneity of the exposed structures has yet to be established, our initial impression is that the settlement displays a considerable degree of planning. The extent of the midden suggests that it served numerous households and also acted as a centralised area for artefact production and other tasks. We suspect that this midden was deliberately created during a later phase of the settlement, and testing this will be a key objective of the 2009 season. That season will also continue to excavate the relatively well-preserved structures at the southern end of the trench, further burials in the central area of the trench, and the smaller

structures below these.

During the 2009 season, we anticipate acquiring at least as many artefacts and faunal remains as in the first season, which have already been very substantial for a site of this age. The number of symbolic objects is unparalleled for a PPNA site in the southern Levant, which may be a reflection of the scale of the excavation. We feel confident that following completion of the excavation in 2010 and the programme of post-excavation studies that will begin in 2011, WF16 will make a significant contribution to our understanding of the origins of sedentism, farming and the Neolithic in the Levant.

Acknowledgements

We are grateful to Dr Fawwaz al-Khraysheh and the Department of Antiquities of the Hashemite Kingdom of Jordan for granting us permission to undertake this project and for their facilitation of the research. The excavation has been supported by the Arts and Humanities Research Council UK (grant number AH/E006205/1). We are also grateful for the support of the Royal Society for the Conservation of Nature and its staff at the Faynan Eco-Lodge. The local *bedouin* community provided considerable support and hospitality for the field-team within Wādi Faynān; we are especially grateful to Abu Fawwaz and Mohammad Sayl of the Rushaida and Jum'a 'Ali of the 'Azazme. We were fortunate in having an excellent field team of professional archaeologists and students. Finally we would like to thank the Council for British Research in the Levant and the University of Reading for their overall support of this project.

References

- Bar-Yosef, O. and Gopher, A. (eds.)
1997 *The Archaeology of Netiv Hagdud*. (Peabody Museum of Archaeology and Ethnology, Harvard Univ., Cambridge MA.)
- Cauvin, J.
1977 Les fouilles de Mureybet (1971-1974) et leur signification pour les origines de la sédentarisation au Proche-Orient. *AASOR* 44: 19-48.
- Finlayson, B. and Mithen, S. (eds.)
2007 *The Early Prehistory of Wadi Faynan, Southern Jordan, Archaeological survey of Wadis Faynan, Ghuwayr and al-Bustan and evaluation of the Pre-Pottery Neolithic A site of WF16*, Wadi

ADAJ 53 (2009)

- Faynan Series Volume 1, Levant Supplementary Series Volume 4, Council for British Research in the Levant and Oxbow Books: Oxford.
- Harris, E. C., Edward, C., Brown III, Marley, R. and Brown, Gregory, J. (eds.)
1993 *Practices of Archaeological Stratigraphy*. London: Academic Press.
- Kenyon, K.M. and Holland, T.A. (eds.)
1981 *Excavations at Jericho*. Vol III, (London: The British School of Archaeology in Jerusalem.
- Stordeur, D., Helmer, D. and Willcox, G.
1997 Jerf el Ahmar une nouveua site de l'horizon PPNA sur le moyen Euphrate Syrien. *Bulletin de la Société Préhistorique Française* 94, 282-5
- Spence, C.
1990 *Archaeological Site Manual*. Museum of London.