

# Excavations at Utica by the Tunisian-British Utica Project 2013

Elizabeth Fentress  
Faouzi Ghazzi  
Josephine Quinn  
Andrew Wilson



## Excavations at Utica by the Tunisian-British team, 2013

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The excavation was carried out between 26 August and 28 September. Again, we excavated three areas, II, III and IV, the report from each of which is presented here. In addition, a campaign of mosaic restoration was carried out on the House of the Large Oecus between 22 September and 6 October, under the direction of Cecilia Bernardini, while the pottery team, Victoria Leitch and Maxine Anastasi, came out for 10 days in March to catalogue the finds from the 2013 season. We are very grateful to the director of the site of Utica, Imed Ben Jerbania, for his constant attention and advice.

### Area II: the Basilica and the Forum<sup>1</sup>

Elizabeth Fentress, Faouzi Ghozzi and Benjamin Russell

As in past seasons, excavations continued both to the north and the south of the main decumanus crossing the site. Excavation to the north was supervised by Benjamin Russell and John Sigmier, while that to the south was supervised by Elizabeth Fentress and Faouzi Ghozzi.

#### *Excavations north of the road*

Benjamin Russell and John Sigmier

In 2013, excavations in the large structure north of the road surface concentrated on the three robber trenches exposed in 2012. In 2012 it was shown that these trenches followed the lines of three major walls, all belonging to one building (Building 1), consisting of a central nave surrounded by a colonnade, an exterior wall, and then an outer portico, at least along its south side. The working hypothesis is that this is a significant public building, perhaps the civil basilica of Utica. The large



Figure 1: The robber trenches from the W. (EF)

number of architectural elements found during excavations confirms the building's importance; these include monolithic grey and pink granite columns (probably Troad and Aswan granite respectively), white marble (probably Prokonnesian) Corinthian capitals and bases, and *giallo antico* fluted pilasters. There appear to be at least two, and perhaps three, different orders of columns and pilasters, suggesting either that the building had two storeys or the colonnade of the south portico was of a different size than the interior colonnade. The three robber trenches that mark the lines of the walls of Building 1 are not all of the same date.

<sup>1</sup> The excavation was carried out under the supervision of the authors, together with Nourhène Bilel, Gautam Bondada, Chahla Dhibi, Caroline Goodson, Khadija Moumni, Soulef Saket, and John Sigmier. Throughout this report context numbers are in bold, with the following symbolism (deposits) [structures], floors and no symbolism cuts.

As shown in 2012, the walls of Building 2, which is clearly dated to the ninth century AD, are built partially on top of the fill of the southernmost trench. In contrast, the fills of the two northerly robber trenches contain material of all dates, and were overlain only by topsoil; they appear to date to the early twentieth century. During the 2013 season, most of the fill of these trenches was removed, exposing parts of the foundations of the walls, as well as sections of earlier structures, which are revealing of the built landscape of the area prior to the building of the basilica.

Exposed in the section of the robber trenches, a number of mudbrick walls and associated floor surfaces belonging to structures pre-dating Building 1 were recorded. These are probably Punic in date. Further progress in this area was hindered by the presence of numerous large fragments of granite columns which had been dumped back into the trench after the spoliation of the wall and which proved logistically challenging to remove.



**Figure 2: The stylobate of the basilica in robber trench 2053, from W. 2 m scale marked with 50 cm intervals. (EF)**

In the southernmost robber trench, work in 2012 exposed a series of limestone blocks which appear to be part of the original foundations. Four of these blocks are in place at the east end of the trench but they do not carry on along the whole length of the trench, where the foundations instead consist of mortared rubble with a highly degraded upper surface. The width of this foundation is 1.1 m. At the other end of the trench, west of Building 2, no solid foundations were identified, but the footings of

a major wall running north-south were exposed, the top of which is 1 m below the level of the road surface. This wall evidently belonged to a building pre-dating Building 1 and seems to have been incorporated into the foundations of the later wall of the basilica. Made of mortared rubble, it has a preserved thickness of 2.23 m.

To the north, work continued on removing the fill of the northernmost robber trench. A sondage excavated at the east end of this revealed two courses of foundation blocks. The lowest of these consisted of large ashlar blocks, two of which were exposed, aligned alongside each other to form a foundation roughly 1.5 m wide. On top of these large blocks was a second series of ashlar blocks, 0.49 m in height. This second course of blocks is preserved only on the east side of the sondage. This wall cuts through the edge of a Punic cistern, the remnants of which are visible in the north section of the robber trench.

In summary, a range of structures pre-dating Building 1 can be seen in the sections and at the bases of these three robber trenches. The north-south wall is the thickest wall identified anywhere in Area II, almost 0.75 m thicker than any of the walls of Building 1. It seems reasonable to connect it to a major public building or even fortification. It does not appear to continue as far as the second robber trench, however, and so presumably turns somewhere beneath the paved surface. The date of this wall is unclear but it is noticeable that its upper surface is 0.2 m below the floor surface exposed in the north section of the trench, which is associated with a mudbrick wall and which appears to be Punic in date. It is on the same alignment as the series of walls seen in the sides of the larger trenches, all of which run either NNE-SSW or NNW-SSE: it might belong to a different phase. How the Punic cistern exposed in the northeast corner of the northern robber trench relates to these

other structures is unclear but, again it is slightly lower in elevation than the floor surface. There is quite a substantial difference in elevation, of between 0.8 and 1 m, between all of these early walls and floors and the floor level of the Basilica or the road surface, but there are no signs in any of the exposed sections of other structures between these building phases. Considering the evidence for extensive terracing elsewhere at Utica, it is possible that this whole area was extensively remodeled prior to the construction of the Basilica, with any pre-existing Roman or late Punic structures flattened and earth brought in from elsewhere to create a level platform; this might also explain the depth of the foundations of the Basilica.

### ***Excavations south of the road***

Elizabeth Fentress and Faouzi Ghozzi

To the south of the road the situation remains rather unclear, due in part to a significant intrusion, which destroys the links between the east and west sides of the trench. This is similar in size and (north-south) orientation to the excavation trench identified last year, and may represent part of a campaign of long trenches aimed at identifying the forum, carried out by a previous archaeologist.

In the northeast corner of the trench the excavation of the large robber trench continued. This became somewhat narrower towards its base, terminating in a rectangular pit, aligned with the road and measuring 1.8 x 1.4 m. Both the robber trench and the presumed foundation trench appear disproportionate with this relatively small element, which for the moment is interpreted as a pier base. The robber trench also revealed three ashlar blocks of an earlier wall, sealed by the road and, presumably cut by the foundation trench. This might be interpreted as a cistern wall on analogy with those elsewhere on site (see below).



Figure 3: Robber trench 2280, from W. (EF)

A second robber trench, evidently robbing a structure aligned with the pier-base, was revealed to the west of it. This was a massive cut, over 2.80 m deep and 3 m wide. It cut through three cisterns: the lowest two ran north-south at the western edge of the trench and probably joined one another. The northern one bonded to an east-west wall on its east side, presumably the wall of the building it served. The

higher cistern, covering the southernmost of the lower ones, was visible in the south section of the robber trench. It ran east-west and seems to have continued over half the length of the trench, as it is visible in cuts further on. The north wall of this was cut away, but part of the masonry survived, lined with hydraulic plaster on the inside, as well as a series of silty fills. Over these, and covering the cistern itself, the paving stones of the forum were visible in section.

The interpretation of the robbed structure is in no way clear, nor is its relationship to the pier base (?), although they are evidently part of the same linear structure. It is not impossible that this is the north wall of the forum, with the pier base representing part of an opening from the road. The paving stones clearly abutted the wall, as they line up with the edge of the robber trench. It is not impossible that there is a second robber trench, currently obscured by the medieval surface related to Building IV, which represents the stylobate for a portico which would have lined the north side of the forum. This portico would have been paved with the limestone slabs seen in section.

The only other Roman structure found in the trench was formed of four large ashlar blocks, laid flat, with a channel around its northern and eastern edges. It was revealed in the bottom of an apparently modern sondage, which was visible on the surface as a roughly square pit filled with large stones (below Fig. 6). The structure may have supported a statue base.

#### *Medieval Occupation: Building IV*



Figure 4: *Tannur* from W. Scale 0.5 m. (EF)

Over the forum paving a 40 cm thick layer of sandy red earth accumulated, onto which Building IV was constructed, just south of the Roman wall and presumably to some extent sheltered by it. In the northern room of this building the removal of the latest floor surface, revealed a lower floor. This was of beaten earth, with a few small stones. On the west side of the room was cut a *tannur*, or oven. This was a ring-shaped structure, almost 1 m wide, filled by layers of ash and burned earth, which probably represent the collapse of its walls. It ran under the section, and it is thus unclear how long the original room was: at this point, the original door in the north wall was open. A small hole in the southeast corner of the room, cut into a sort of little raised bench, was interpreted as a container for a jar. Room 1 is thus curious, being little over a metre wide, although clearly functioning for cooking. To the south of it, separated by the rather fragile wall, was Room 2. This was much more destroyed, and seems to have gone out of use in the second phase of Room 1. The walls were very scruffily constructed, with earth and some squared stones. The floor was of beaten earth. This surface was covered by a destruction layer, which may have served as the outside surface for the second phase of Building IV.



Figure 5: Building IV, room 1, from E. (EF)

To the south of the building was a surface which seems to have been general to the whole of the area. At the southern end of the trench, this surface was cut by two small walls running parallel to each other. One of these ran at a slight angle into the western section: it was preserved as two courses of stones in its eastern end, but was robbed in its western part, and disappears under the section as a robber trench. The second is a thin wall of a single course of stones, running roughly parallel to it around a metre away, but cut by the modern sondage. It is not clear whether these structures related to Building IV in any way. There is no real continuity between them, but, assuming a large degree of destruction, they *might* form two wings of the same large, courtyard structure.



Figure 6: The trench from the S, showing silos. (EF)

The surface of the possible courtyard was cut by a very large number of silos. Those towards Building IV were smaller, generally between 60 and 80 cm wide, and occasionally bell-shaped. There were also two massive, bell-shaped silos over 2 m deep. The lower, swelling sections of these were filled with silty earth with much pottery and some bone, while the upper, cylindrical sections were blocked with massive stones, some too heavy to remove. Their fills were rich in pottery, though bones were relatively scarce, and limited to chicken and some lamb. Further silos were found clustered around the robber trench beside the road, although these were far less rich in ceramic material. We must imagine these silos clustered around the ruins of the Roman structure when it was still standing.

The dating of all these structures remains uncertain. A brief and out-of-sequence excavation of a grey, silty layer running under Building IV, thought to be the robber trench of the forum portico, revealed a glass weight and a coin of the sixth Fatimid imam, al-Mu'izz (Ma'add al-Mu'izz li-Din Allah, AD 953-975), although some doubt remains that the coin, at least, could date to a later imam. This would give a *terminus post quem* for the little settlement of the third quarter of the tenth century: pottery from the backfilling of the largest silos may be as late as the twelfth century, although the fairly shallow stratigraphy would tend towards a rather shorter occupation, perhaps terminating in the eleventh century.

Occupation seems to have continued into the twelfth century, as pottery from the very large silos to the south shows. In one of these, were found a brown, green and turquoise glazed bowl, together with D'Angelo E1/E2 amphorae. Coarsewares include strainer jars, including a glazed version.<sup>2</sup> The robbing of the Roman wall, carried out next to Building IV, seems to signal the end of the occupation

<sup>2</sup> The coins were identified, from photographs by Marilì De Luca, the pottery by Victoria Leitch.



Figure 7: Glass weight or token, al-Mu'izz. (JD)



Figure 8: Coin, al Mu'izz(?). (JD)

of the site, as its fills cover the little building and the pottery from the robber trench appears to be the latest on the site, again, probably dating to the twelfth century. The occupation of the village thus seems to date to the Fatimid period, and to have been relatively short-lived. It was rather extensive, however, as other huts are visible throughout the area of the forum.

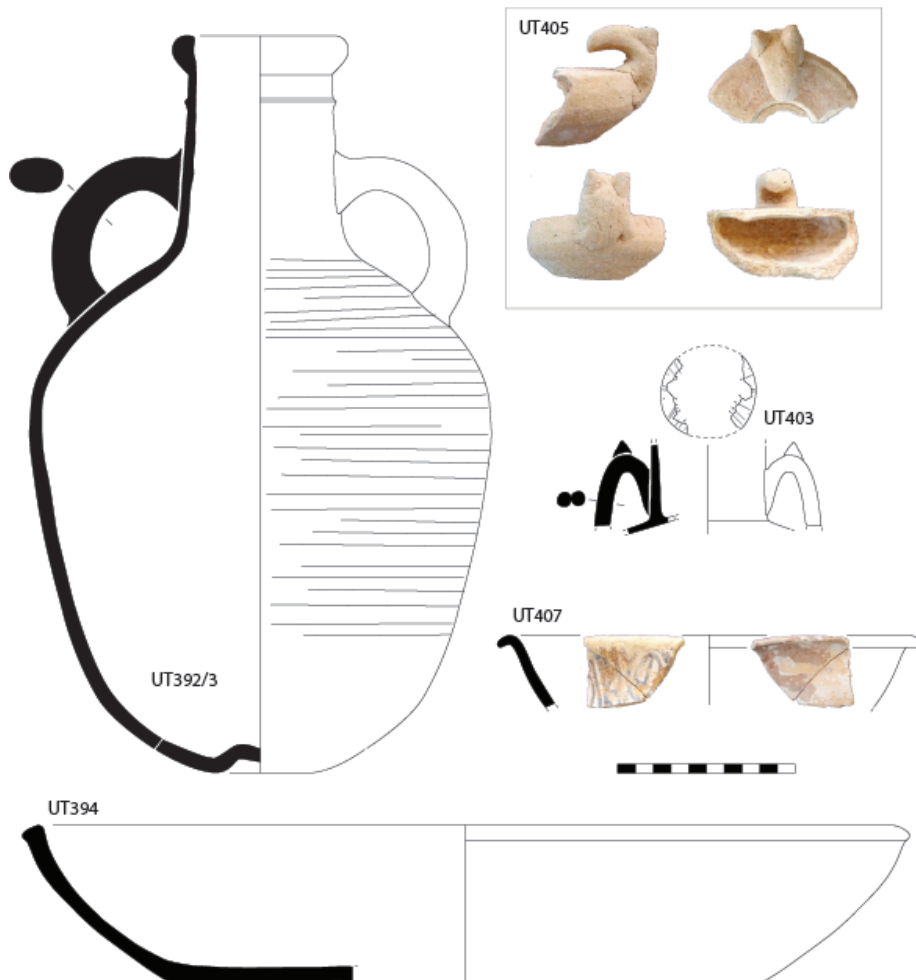


Figure 9: Islamic forms from context 2301, Area 2. (VL)



Figure 10: Islamic glazes sherds from context 2301, Area 2. (VL)

### Area III: The House of the Large Oecus<sup>3</sup>

Geoff Morley and Nichole Sheldrick

The main focus of the 2013 excavations in the House of the Large Oecus was the continuation of the work begun in 2012 in Rooms XIX, XX, XXI, and the west half of XXII. Further investigations were extended to other parts of the house, principally in Rooms IX, X, XXIII, and XXVII.

#### *Room XIX*

At the end of the 2012 season, Room XIX had been excavated to the level of a thick destruction layer with large chunks of mortar and ashlar piers, presumably related to the collapse of surrounding walls, which covered the entire unexcavated central portion of the room. Pottery from this layer has been dated from the third to fifth centuries AD, suggesting that the final collapse and abandonment of this room probably occurred sometime in this period.

This season, our excavations reached what is probably an early post-abandonment occupation surface, a thin silty grey layer only a few centimetres above what remains of the mosaic pavement. Excavations were halted at this level in order to preserve the pavement until it can be properly excavated and consolidated next season. The exposed north and south ends of the room show the remains of a black and white geometric mosaic which is in bad condition; it seems likely that the rest of the mosaic in the central part of the room is in no better condition due to heavy continued activity following the primary abandonment of the house.

Dotting the surface were several small concentrations of fire-reddened soil, ash, and charcoal, interpreted as small fires, probable evidence of squatter occupation immediately following the primary abandonment of this part of the house.

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<sup>3</sup> The excavation was carried out under the supervision of the authors, together with Janet Dunkelbarger, Thouraya Ghozzi, Kaouther Jendoubi, and Yosra Manai.

One of the most interesting features uncovered in Room XIX was a round, stone feature ([3222], Figs. 11 and 12). Its central component is a rectangular ashlar block, with smaller, rough blocks arranged in a circular fashion around it using a mud mortar to create a large circular platform, c. 1.2 m in diameter and currently seen to be c. 0.40 m high. Its original height and purpose is unknown, but one hypothesis is that it served as a base for a rotary mill.<sup>4</sup> Its presence in one of the grander reception rooms indicates that by the third century AD the house was no longer used for domestic display.

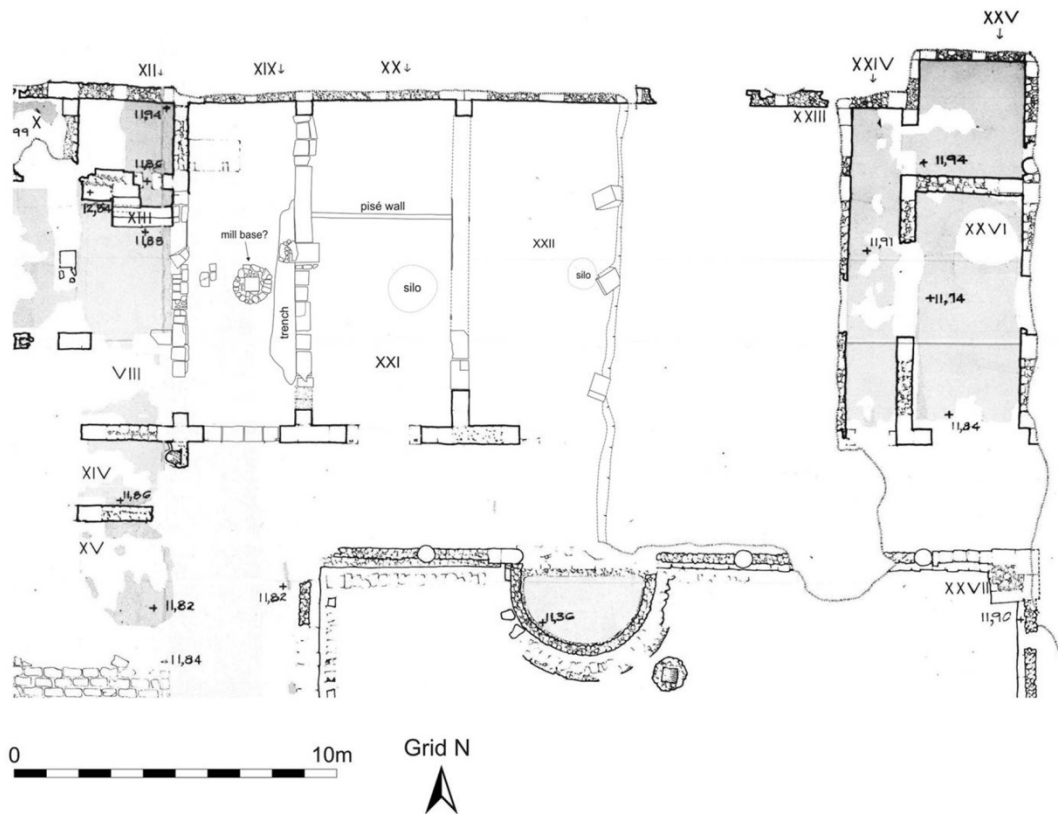


Figure 11: Plan of the N side of the house, to show new features. (NS)

Covering the surface was a thick destruction layer composed of yellow-brown mixed clay, probably deriving from pisé structures, and large stones. There were also a number of small ash deposits which may be evidence of transient occupation during collapse or robbing events. The deposit produced multiple coins which were roughly dated to the fourth century AD.<sup>5</sup> This date would also accord well with the dating of the ceramic material found in the deposit.

#### Rooms XX and XXI

At the end of the 2012 season, we believed that we had identified the location of the dividing wall between Rooms XX and XXI. After exposure of the foundations of the east wall of room XIX, [3106], one foundation block extended eastwards, appearing to be the start of an east-west dividing wall. In addition, its location coincided with a trench running along the same line. On excavation of trench however, we found there was no evidence for any type of wall foundation beyond that first block extending from wall [3106]. The purpose of the trench is therefore unknown.

<sup>4</sup> We are grateful to Andrew Wilson and Elizabeth Fentress for suggesting this interpretation.

<sup>5</sup> We are grateful to Jean-Pierre Brun for looking at the coins and suggesting this dating.



Figure 12: Rooms XIX, XX and XXI, from the N. (EF)

Adding to the problem of where the division between Rooms XX and XXI was actually located was the discovery of a thin wall of pisé or mudbrick construction, **[3179]**, running east-west across the full width of Room XX with no apparent break. The wall, 0.12 m thick, was faced with plaster and its maximum preserved height above pavement level is c. 0.50 m. Due to the fragility of the wall, a c. 0.20 m baulk was left on either side, so the relationship of the wall to the pavement levels is not currently known.

Having now excavated nearly to pavement level on either side of **[3179]** in Rooms XX and XXI, it seems likely that this pisé wall represents the location of the division between the two rooms. However, whether this construction was the original form of divider between the two rooms remains to be seen. Considering the rather bulky stone construction of the walls in the rest of the house, we might speculate that this comparatively flimsy wall was a later addition, dividing what was originally a larger room into two (which could possibly have involved re-paving one or both of the rooms, since the two rooms have different paving).

The sequence of events in Room XX north of **[3179]** is fairly straightforward. The earliest context exposed in our excavations was **3260**, an early layer of trample sitting on top of the remains of the mosaic pavement. This was covered by three successive layers of clayey, plaster-rich fills which represent the decay of the house, with occasional smaller 'dumps' between and a small fire pit, in the southwest corner. The latest of these fills had a significant number of stone and marble fragments, which might suggest it was associated with a period of robbing of the house.

A similarly straightforward sequence of fills was observed in the narrow area between the south side of pisé wall **[3179]** and the north edge of trench **3159**. As in Room XX, the sequence of contexts in Room XXI appears to have been a straightforward accumulation of successive layers of collapsed

pisé, characterised by their clayey composition and frequent inclusions of plaster. These were deposited over a silty post-abandonment layer which sits over the remnants and bedding of the slate tile pavement of Room XXI and remains unexcavated in 2013.

The most interesting feature of this room was silo **3232** found on the east side of the room. The silo was cut through the pavement of the room, the neatness of which suggests that it was done with some care and quality tools. A series of deposits were excavated from the silo, including the articulated skeleton of a large dog.

#### *Room XXII (and XXIII & XXIX)*

As in the other rooms, we halted excavations in the west half of Room XXII at a clayey-silty layer which is interpreted as a post-abandonment trample, just above the marble pavement. Above this was a series overlapping layers of destruction and collapse, several of which had fragments of painted wall plaster in a variety of colours. Cutting through one of the upper layers was another silo, **3174**. The silo bottomed out on the marble pavement of the room and its east side was defined by a tumbled ashlar block. This ashlar block was one of three which were found to be emerging from the east limit of excavations in Room XXII. Their relatively regular spacing has prompted speculation that they fell from an *opus africanum* wall further east and tumbled westwards. Excavation of the eastern half of Room XXII in 2014 will hopefully be able to shed further light on the matter.

Investigations into the remaining unexcavated area of this part of the house were begun towards the end of this season in the east half of Room XXII, Room XXIII, and Room XXIX. Only the uppermost layers of topsoil and fill were excavated this season, but they have begun to expose the remains of at least two standing walls.

#### *Room IX*



Figure 13: Room IX from the N: the two N walls are visible at the bottom of the picture. (EF)

The activities in Room IX, a large room in the northwest corner of the house, mainly consisted of cleaning and the recording of its walls in order to better understand its phasing. A thick layer of soil had built up over the floor surface **3157** since it was last exposed in the 1970s by the *Corpus des Mosaïques* investigations. The remaining floor surface consists of the bedding for a hexagonal *opus sectile* floor, most of the marble and slate of which it was originally composed having now disappeared. The floor itself has acquired a convex shape, sloping downwards to the east and west, due to its position over the top of a vaulted cistern.

The room was originally accessed through a wide entrance or doorway in its south side, and a smaller doorway in its east side.

At least three major modifications were made to the room at some time during its history, though the sequence and timing of these events is not entirely clear due to the earlier excavations. Firstly, the two doorways just mentioned were filled in with large ashlar blocks (and in the case of the eastern doorway, stacked ceramic tiles to fill in the gaps). The blocks were placed directly on top of the marble thresholds which are still visible beneath them. The third major modification was the addition of a wall, the purpose of which is completely unknown, which paralleled the north wall of the room leaving a gap of approximately 0.30 m between the two. The wall was built directly on top of the bedding for the *opus sectile* floor, and therefore after the marble pavement had disappeared. The space between the two north walls remains filled with soil; it may be instructive to excavate a section in the hopes of finding secure contexts which could date the construction of the later wall.

## The Conservation Season at the House of the Large Oecus

Cecilia Bernardini



Figure 14: Room XXIV in 1974 (from Dulière, C. 1974: *Corpus des mosaïques de Tunisie, vol. I.2. Utique. Les mosaïques in situ en dehors des insulae I-II-III. Tunis: Institut National d'Archéologie et d'Art., Pl. 12*)



Figure 15: Restoring the mosaic 40 years later, facing S. (NS)

with scalpels to remove roots. They were then filled with a medium mortar; where possible, tesserae were replaced with a fine mortar. After some discussion, we decided to use a mortar without hydraulic lime, to mimic the mortar of antiquity and to be able to work more slowly, as the mortar remains usable for two days. After the end of the season, Hamadi Sillini and Hedi Boujemaa completed the restoration of the corridors XXIV and VII. These were then sprayed with herbicide and covered with geotextile and sand. It was also decided that next year's season would be prepared by successive sprays of herbicide.

Conservation began on the 23<sup>rd</sup> of September and finished the 4<sup>th</sup> of October.<sup>6</sup> The object was the conservation of several mosaics in Rooms VII, XXIV and XXV, together with an introduction for the volunteers to the techniques of mosaic conservation. Three records were composed for each mosaic: one for the identification, a second for previous interventions, and a third for the state of conservation. The mosaics were washed with water and brushes to remove micro-organisms, principally algae and lichens.

The mosaic in Room XXV had numerous small lacunae, which were cleaned with water and

<sup>6</sup> The campaign was carried out under the direction of Cecilia Bernardini, with the participation of Nourhène Bilel, Hedi Boujemaa, Thouraya Ghozzi, Kaouther Jendoubi, Yosra Manaï, Joelle Notarandrea, Hamadi Sillini, and Soulef Saket.

## Area IV: Domestic buildings, ceramic kilns and a lime kiln

Andrew Wilson

Excavation continued in Area IV, where in 2012 a large lime-kiln had been partially excavated and parts of three ceramic kilns exposed.<sup>7</sup> Work this year exposed parts of two structural complexes; two of the ceramic kilns were excavated and the third was found to be cut by two further kilns. The features are here assigned to a preliminary phasing, which may need to be refined as excavation proceeds in 2014.

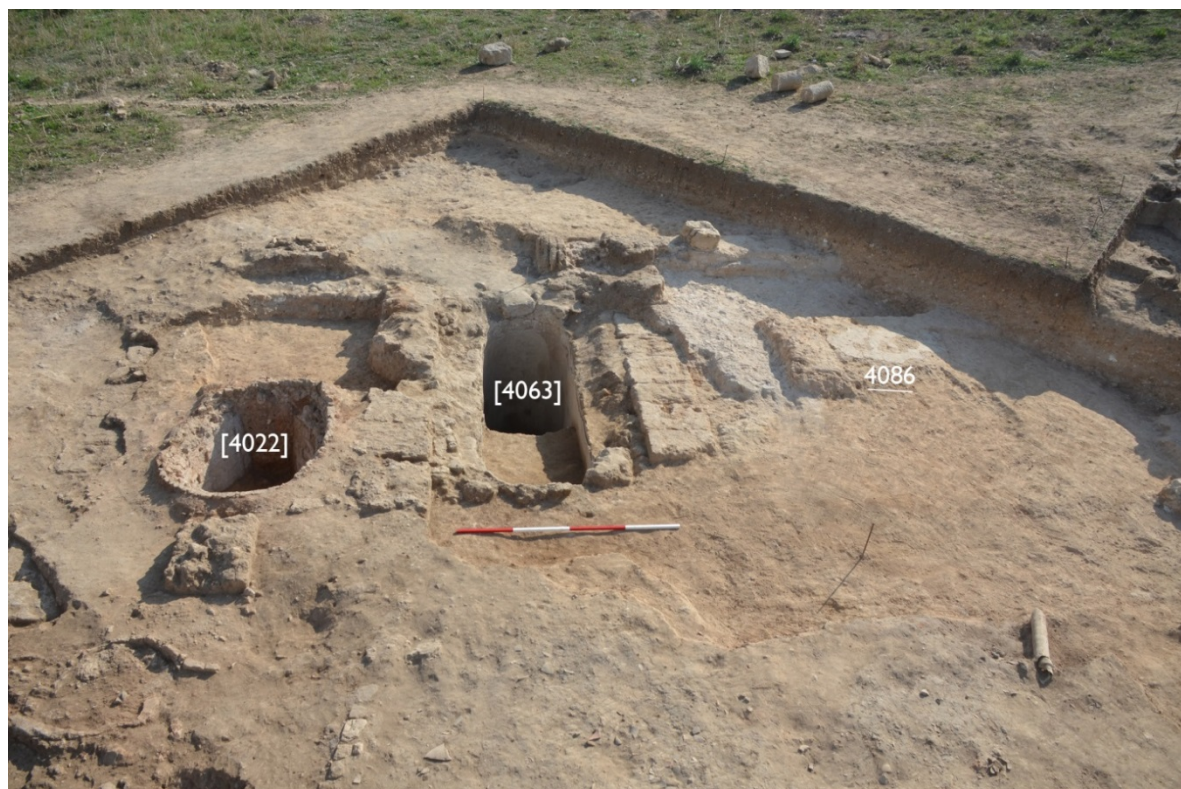


Figure 16: Area IV, looking E. From left to right: the kiln [4022] (Phase 3) and cistern [4063] (Phase 1) within the ashlar foundations of the Phase 2 structure, and the white plaster demolition of Phase 2, surmounted by the pisé wall and mosaic 4086 of Phase 3. (AW)

### **Phase 1 Cistern**

The earliest feature revealed on the site was a cigar-shaped cistern of classically Punic type, 3.55 m long, 1.01 m wide and 3.52 m deep (Fig. 15). This was half-sectioned; the lowest fill was a thick rubble dump, perhaps a destruction or collapse deposit, above which sandy and clay fills seem to represent post-abandonment silting.

There is no independent evidence to date the cistern beyond its typically Punic shape, though such cisterns probably continued to be built during the early period of Roman Republican North Africa; in any case, the fact that the lowest fill contained Roman material, including vaulting tubes, suggests that the cistern continued in use until well into the Roman period, probably during the subsequent phase(s).

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<sup>7</sup> Excavation was carried out under the supervision of the author, together with Wadi Boughedir, Corisande Fenwick, Roberta Ferritto, Neila Lajili, Khadija Moumni, Edward Peveler, Erica Rowan, Skander Soussi, and Gabrielle Thiboutot.

## Phase 2

The next phase is represented by the construction of a complex on the same alignment as the cistern, whose walls frame it but cut the upper part of its walls (Fig. 16). Since the cistern was only filled in the Roman period, it is likely that it continued in use during this phase. The building was constructed with footings of large squared ashlar blocks, above which the superstructure was originally in pisé; some remnants of which still survived on the foundations in places. The destruction layer of the southernmost room was defined, consisting of pisé demolition and much white wall plaster.

## Phase 3

### Early Roman House

Over the wall plaster representing the demolition of the Phase 2 building in its southern part, remnants of a mosaic, white with blue geometric designs, framed by parts of two pisé walls with their plaster inner faces traceable, were preserved. These structures are badly preserved but appear to be part of a Roman house on the same alignment as the Phase 1 cistern and the Phase 2 building (Fig. 15). To the southwest, a plaster-lined channel and scant traces of further demolished walls probably go with this phase; they are all capped by the same thick pisé demolition deposit, which contains pottery of the late second through to late third or even early fourth century AD.

### Ceramic kilns



Figure 17: Kiln [4022], from W. Scale 0.5 m. (AW)

Because the pisé demolition deposit of Phase 3 had been heavily truncated by erosion in its northern part, no stratigraphic continuity could be confidently observed between it and the various ceramic kilns in the north part of the trench. Nevertheless, we think it possible that the first kilns belonged to the same phase as the house, since the production dump appears to be sealed by the same pisé demolition deposit. Kilns [4022] and [4071] are not earlier than Phase 2 and are probably later than it; kiln [4050]

is certainly later than Phase 2.

Kilns [4022] and [4071] were small and sub-circular, and both were framed within the footings of the walls of Phase 2. Kiln [4022] was nearly circular, and its walls built of unfired clay bricks fired *in situ*, with a central circular pillar support (Fig. 17). Kiln [4071] by contrast was slightly elongated so that it was almost tear-drop shaped in plan, with its sides constructed of large tiles of unfired clay set on edge, which were subsequently fired *in situ*. No central pillar survived. The fill of both kilns contained coarsewares of local production and wasters which may have been made in the vicinity, although not in the kilns they actually filled. The latest finewares from the fill of these kilns were ARS A Hayes 8 forms, suggesting a date from the late first to second half of the second century AD for the filling of these kilns and the end of Phase 4.

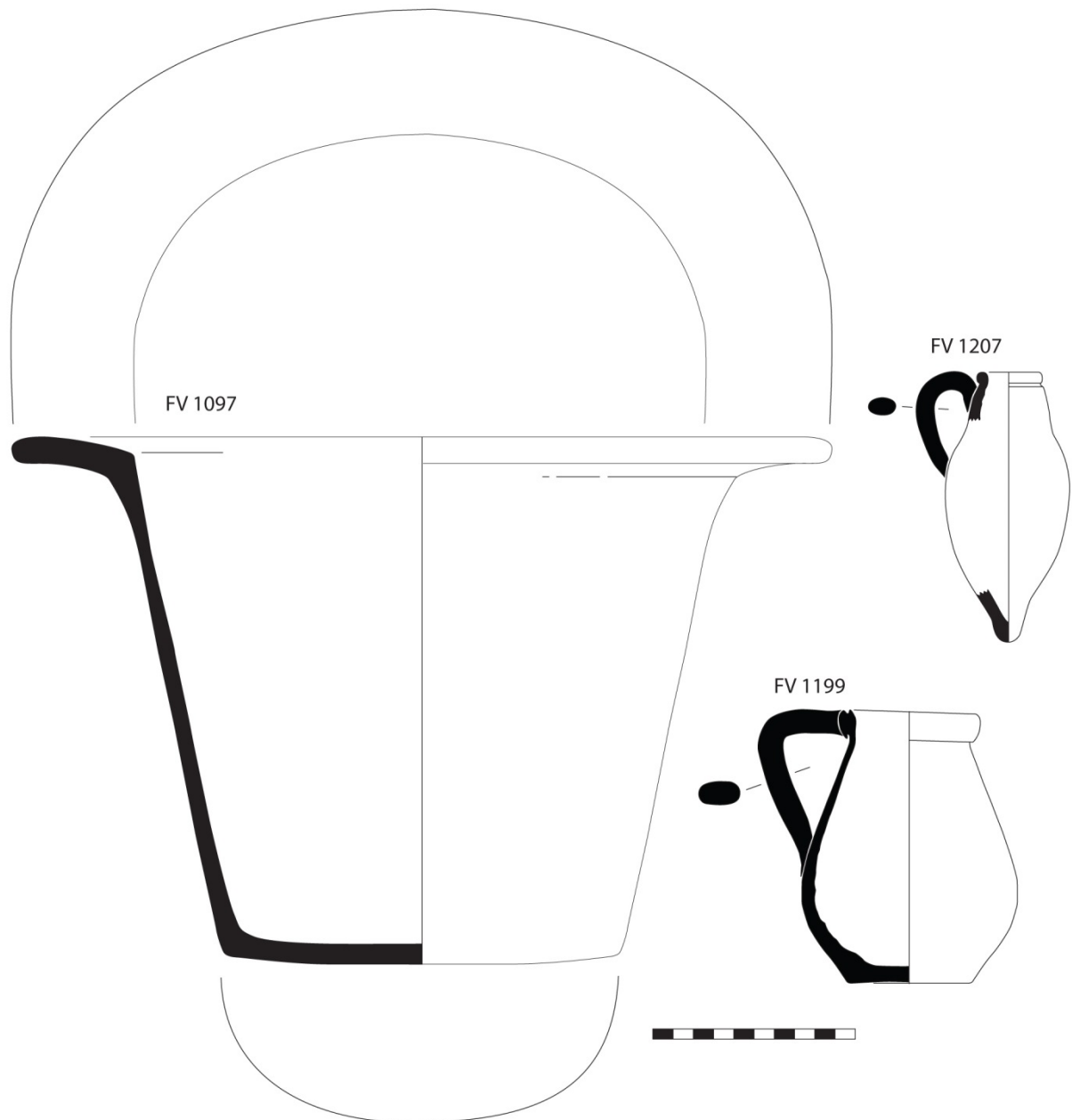


Figure 18: Pottery forms from kiln context 4072, the fill of kiln 4071 (MA)

To the west of these kilns a large deposit rich in pottery and ash was largely defined but not excavated in 2013. This appears to be a dump associated with ceramic production in the kilns. The top of this deposit directly underlay topsoil and has been truncated and disturbed; material excavated from the disturbed part in 2012 included early Roman material, especially cooking wares of forms Hayes 191 and 194. Towards the south this deposit is covered by a layer of eroded pisé collapse from the demolished Phase 3 buildings further south.

#### **Phase 4 - tank**



Figure 19: Area IV, tank [4070] and terrace wall [4005], from N. (AW)

Over the destruction of Phase 3, and again on the same alignment, towards the south of the trench was constructed a tank [4070], 3.15 x 2.70 m, with the floor in *opus figlinum* and the walls built in mortared rubble concrete, and lined with *opus signinum* covered in white plaster (Fig. 19). A lead pipe leaves the tank through the west wall near the southwest corner, a few centimetres above the floor; there is a ceramic drain pipe at floor level in the north wall at the northwest corner. Both pipes are associated with external surfaces, to north and west; into the north surface a ceramic pot had been set, filled with stones. To the south, the tank abuts a wall which may have formed a property boundary, and certainly serves to terrace the site as the ground rises steeply to the south above it. Material from the construction fill of walls associated with the tank suggests an early Roman date – fragments of ITS and Dressel 2-4 amphorae. The purpose of the tank is unclear; it is possible that it served for the preparation and puddling of clay, but if our reading of the fragile and poorly preserved stratigraphy (which, truncated by erosion, is not always continuous between the different parts of the trench) is correct, this tank should belong to a later phase than the kilns actually excavated within the trench.

The tank was filled with predominantly sandy deposits, the lowest also containing two limestone column drums.

#### **Phase 5**

To the northwest of the Phase 4 tank, the external surfaces associated with it were destroyed, apparently by the cut for the large lime kiln [4003] partly excavated in 2012 (Fig. 20). Limited excavation of the backfill of this cut produced Late Punic / early Roman material suggesting a date probably not later than the mid to late first century AD: Campanian cooking wares, Italian black gloss, and early Roman North African cooking wares (Hayes 191 and Hayes 194), but no ARS.



Figure 20: Area IV, the lime kiln [4003] with tank [4070] behind it to the left, and in the foreground, below the scale, the ashy dump of ceramic waste. From N. (AW)

The kiln itself had undergone at least two phases of repair, attested by repairs to and relinings of the walls, before its domed roof eventually collapsed – large sections of the collapsed bricks of the upper walls and dome were found in the sequence of fills. The floor appeared to have been cut into the local subsoil, and was blackened and covered with the remains of lime from firings. The total height of the kiln originally exceeded 4.5 m.

### **Discussion**

Elizabeth Fentress and Andrew Wilson

The trench in Area IV lies within an area within which the geophysics survey of 2010 showed a number of anomalies that probably represent kilns; the three sets of ceramic kilns excavated in the trench all showed up on the magnetometry survey, and to the southeast of the trench lie further similar features. In the Punic period this area lay beyond the fifth-century BC necropolis and the suburban industrial zone suggested by the fourth- or third-century BC Punic kilns found in the 1920s in the cut for the Decauville railway. The Phase 1 Punic-style cistern excavated in Area IV, and the Phase 2 building, may reflect the expansion of the residential zones of the city into this area by the late Punic/early Roman period, but if so, the area reverted to a manufacturing, or mixed residential and manufacturing character in the early Roman period (Phase 3), with kilns producing coarsewares. The large lime kiln appears to be later than the ceramic kilns, and surface indications to the south, where there are at least two large circular depressions of similar size to the excavated kiln, at the top of the steep bank, suggest that there may have been a series of lime kilns along the steep edge of the gully side where the southwest winds hitting the bank would have created ideal conditions for updraught kilns. It is tempting to want to connect a series of lime kilns in this locality with the construction of the large southwest baths nearby, built in the mid second century AD, but caution is required; the limited excavation of the backfill of the construction cut for the lime kiln produced

nothing later than the mid/late first century AD. A city the size of Utica would have had a considerable and continuous demand for lime in building activities both public and private, and the topographic and wind conditions here on the outskirts of the city were well suited for the placement of kilns.

More generally, we seem to have found clear indications of the chronology of the occupation of the site in Roman times. There seems to be substantial continuity in plan and occupation from the Punic period: all of the Punic walls in the forum area are aligned on an orientation very similar to that of the Roman buildings, while Area IV shows the reuse of a probably Punic cistern by subsequent buildings, although the destination of the area seems to have changed towards pottery manufacture. The truncation and terracing of the previous structures seen in the area of the Basilica and forum took place later, possibly, based on the architectural elements, during the Severan period. Although the Basilica was of some magnificence, by the end of the century there are clear signs of degeneration in the use of the nearby buildings, particularly in the establishment of a mill in a reception room of the House of the Large Oecus. By the fourth century this building was abandoned and robbed, while in the entire area the latest sherds are ARS form Hayes 67, AD 425-475. Abandonment of Area IV, on the outskirts of the town, may have occurred even earlier, as a sherd of ARS form Hayes 50 is the latest on the site. This early abandonment of a port town that apparently flourished into the Roman period must be based on the silting of its harbour, which work underway by Jean-Philippe Goiran, Hakim Abichou and others will clarify.

There is thus a substantial hiatus between the Roman town and the first occupation by a small village of one or two-roomed houses, now dated to the tenth century. These occupied much of the area of the forum and the nearby buildings – remains of these are visible near Area II, to the east, while the vats excavated in 2010 to the west of the Basilica seem to have been occupied during this period. The circumstances of the foundation of the little settlement, clustered around the massive ruins of the basilica and forum wall, are unclear, but it seems to have survived into the twelfth century. The last activity recorded is the robbing of the forum wall, a considerable enterprise given the depth of its foundations. It may be that these consisted of the very large limestone blocks that were found sealing the openings of the latest cisterns. Their resemblance to the blocks found in the apparent Punic fortifications south of Area II suggest that they derived originally from these, which had been reused in the Roman foundation, while similar blocks seen on the site of Borj el Ghoul, some 2 km from Utica, may suggest the destination, not only of the building materials, but also of the inhabitants of the small settlement at Utica.