

# *Towards a Functional and Historical Definition of the Royal Palace AP at Urkesh Report on the 13th Season at Tell Mozan/Urkesh: Excavations in Area AA, June–August 2000*

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“Überlegungen zur funktionellen und historischen Bestimmung des Königspalastes AP in Urkesh.  
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Note. By clicking on figures framed in red a separate higher resolution version will be displayed.

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## 1. Introduction

The thirteenth season had originally been planned as a study season, but the nature of the finds made in 1999 forced us to change strategy. The cache of seal impressions of Tar'am-Agade, the daughter of Naram-Sin, was of such importance that we felt compelled to aim without delay for two further goals: the recovery of any other seal impressions that might still be in the ground near where the cache was discovered, and a clarification of the overall stratigraphic situation to which these sealings belonged. Accordingly, we planned the 2000 season as a combined study and limited excavations season. We did reach our goals and came thereby to a better understanding of the overall depositional history of the Royal Palace.

Our work lasted from June 4<sup>th</sup> to August 15<sup>th</sup>.<sup>1</sup> Following our excavations in the Royal Palace, the excavations in Area C2 took up the rest of the season, from mid August to mid October. This is the third year of the excavations in this area by the Deutsche Orient-Gesellschaft team under the direction of Peter Pfälzner and Heike Dohmann-Pfälzner.

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<sup>1</sup> As always, we are very grateful for the assistance and support of the Directorate General of Antiquities and Museums, in particular the acting Director General, Dr. Ali al-Kayem, the new Director of Excavations, Dr. Michel Maqdissi, and the Director of the Office in Hassaka, Mr. Abd el-Mesiah Bakdou. We also wish to greet the new Director General, who was appointed after the end of our season, Dr. Abd el-Razzaq Moaz.

The 13<sup>th</sup> season was made possible through grants from the National Geographic Society, the Catholic Biblical Association, the S. H. Kress Foundation, the L. J. and M. L. Skaggs Foundation, the Ahmanson Foundation, Loyola Marymount University, Syria Shell Petroleum Development B.V., the Urkesh Founders and various donors. The Opificio delle Pietre Dure of Florence made it possible for Beatrice Angeli to participate in our work. Special funds for conservation materials were made available by CTS, srl, Prodotti attrezzature e impianti al servizio del restauro.

Excavations during the first half of the season were under the direction of the writers, with the participation of Lara Aho, Beatrice Angeli, Alice Bianchi, Sophie Bonetti, Federico Buccellati, Elena Devecchi, Giuseppe Gallacci, Rick Hauser, Ong Kar Khalsa, John Lynch, Paola Orlando, Valeria Paoletti, Steve Perry, Pietro Pozzi, Barbara Pritzkat, Laura Ramos, Salvatore Viaggio, James Walker, Claudia Wettstein. Our representative from the Directorate General of Antiquities and Museums was Ali Ali from Qamishli. Joong Sun Moon and Silva Matossian have helped in the preparation of the ceramic graphics for this article.

We are grateful for the assistance of our colleagues Lucio Milano, Wolfram Nagel, Joan Oates, Piotr Steinkeller, Eva Strommenger and Gernot Wilhelm, who generously answered our queries concerning the excavations and the finds.

As in the past, and just as regrettably, the large number of staff members of our two respective teams made it impossible to conduct excavations at the same time. Their work is adding immeasurably to our understanding of ancient Urkesh, and we are grateful for their cooperation. Their excavations will be presented separately and are not covered in this report. It was with great pleasure that we were able to return to Mozan on September 16<sup>th</sup> to the 22<sup>nd</sup> so as to review *de visu* the DOG\_excavations, and to learn firsthand about the important new information that they have been bringing to light.

## 2. The Data: Stratigraphy

### 2.1 The Palace and the Settlements

The excavations in the formal wing of the Palace AF have shown evidence of localized destruction, followed by an immediate re-occupation, though of a type clearly not in keeping with its earlier palace functions (for instance, a *tannur* was set in place right above the pavement of the courtyard H3, see Fig. 1). Only room H2 was left unoccupied, and it was here that the sealing cache with Tar'am-Agade's door sealings was deposited. It seems plausible that, though damaged, this space had not become a public open space, but remained within the boundaries of a palace compound – possibly because a second palace had been built in close proximity to the old one, maybe to the south. In any case, the continued use of the underground stone structure W indicates that the space corresponding to room H1 was bounded by structures destined to palace use (AK, W – if W

is indeed related to the ancestors' cult as suggested below, 5.4).

We are thus in a position to revise slightly our previous stratigraphic sequence (see Fig. 2).<sup>2</sup> Essentially, we must rename Phase 2b of the previous sequence as Phase 3a, since the occupation that corresponds to Tar'am-Agade's presence in Urkesh equals the beginning of the re-use of AK and the destruction/re-use of AF. The division into two sub-phases, 3a and 3b, does not alter the previous strata assignment,

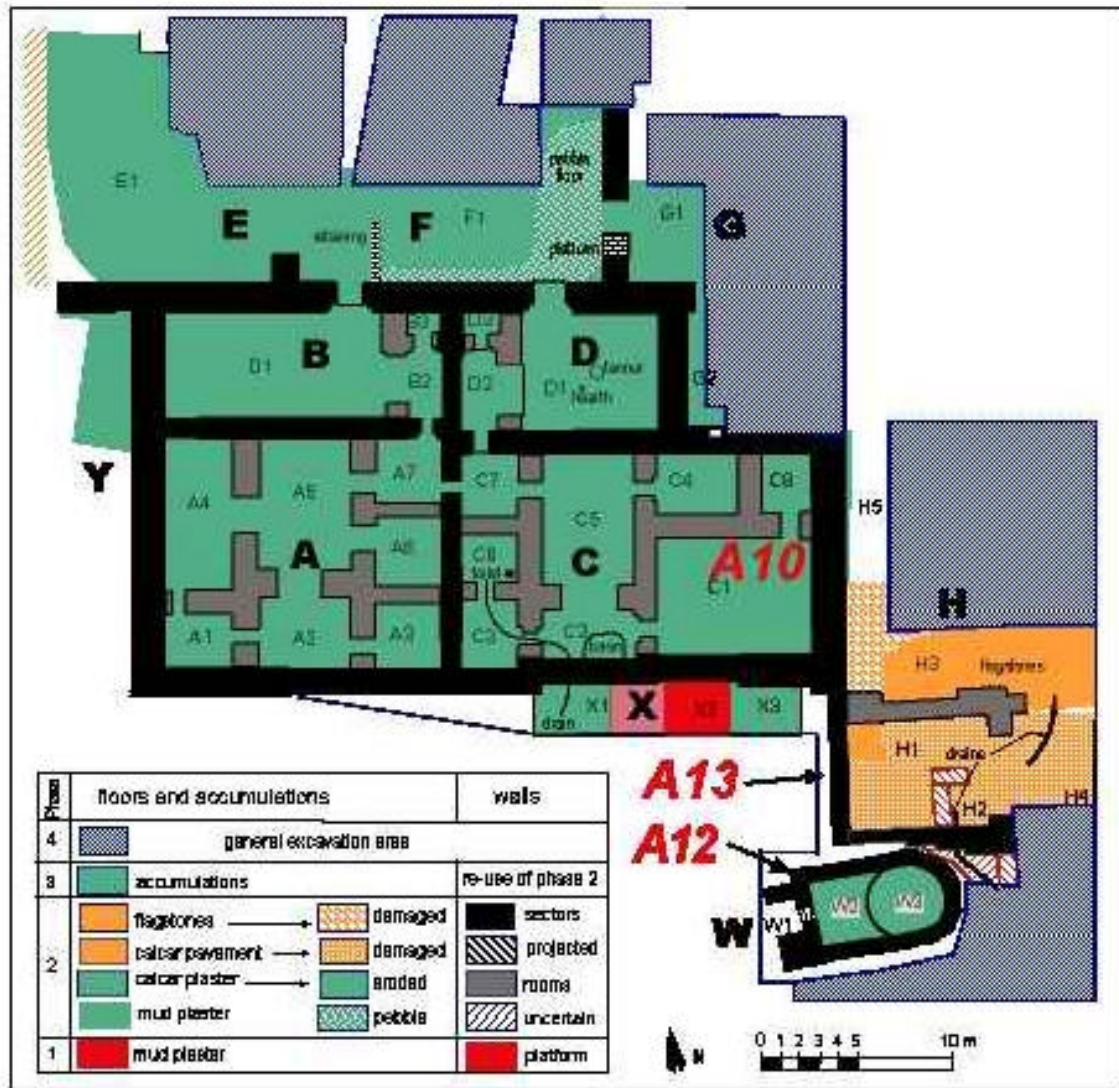


Fig. 1. General Plan of the Royal Palace AP with the service wing AK (sectors A-D) and the formal wing AF (sector H)

<sup>2</sup> We assign phase 3b to a period which we call, following a suggestion of Federico Buccellati, “Post-imperial Akkadian.” It refers to the period following Shar-kali-sharri and down to the end of the reign of Shu-durul. The term “Post-Akkadian” is generally used, but this seems improper since it subsumes the two kings Dudu and Shu-durul, who bear the title “king of Agade” in seals and inscriptions, and who reigned for some 35 years. If the period, generally reckoned to be 40 years, of presumed Guti presence in Southern Mesopotamia is either much shorter or non-existent (as seems to be more and more likely), then the term “Post-imperial Akkadian” covers the entire time span between the last major Akkadian king and Gudea/Ur-Nammu.

since the stratum 16 that had been assigned to phase 2b is now to be understood as belonging to phase 3a.

We can also better understand the two phases that followed the abandonment of the palace, which took place at the end of phase 3. Phase 4 is characterized by late third millennium houses built on the hill that

| phase | Syro-Mesopotamian periodization                    | str  | sub-str  | description of stratum                             |  |                                      |  |  |   |   |
|-------|--|--|--|--|--|--------------------------------------|--|--|---|---|
| 6     | no occupation                                      | modern   | 1  | surface wash and erosion                           |  |                                      |  |  |   |   |
|       |  |  | 2  | sod layer, top soil                                |  |                                      |  |  |   |   |
|       |  |  | 3  | disturbed upper layer                              |  |                                      |  |  |   |   |
|       |  |  | 4  | removal of ancient stones; gully wash; laminations |  |                                      |  |  |   |   |
|       |  |  | 5  | modern burials                                     |  |                                      |  |  |   |   |
| 5     | topmost settlement                                 | OJ II  | Old Babylonian - Khabur                                      | 6  | houses   |                                      |  |  |   |   |
|       |  |  |  | a  | abandonment and scattered occupation                   |                                      |  |  |   |   |
|       |  |  |  | b  | collapse of houses                                     |                                      |  |  |   |   |
|       |  |  |  | c  | accumulation within houses                             |                                      |  |  |   |   |
|       |  |  |  | d  | structural build-up of houses (walls and first floors) |                                      |  |  |   |   |
| 7     | burials  |  |  |  |  |                                      |  |  |   |   |
| 4     | middle settlement                                  | OJ I   | Isin-Larsa   | 8  | houses   |                                      |  |  |   |   |
|       |  |  |  | a  | higher accumulation within houses                      |                                      |  |  |   |   |
|       |  |  |  | b  | accumulation within houses                             |                                      |  |  |   |   |
|       | c  | structural build-up of houses (walls and first floors) |  |  |  |                                      |  |  |   |   |
|       | 9  | burials  |  |  |  |                                      |  |  |   |   |
|       | 4a   | lower settlement                                       | EJV  | Ur III   | 10   | houses                               |  |  |   |   |
|       |  |  |  |  | a  | accumulation within houses           |  |  |   |   |
| b     | structural build-up of houses                      |  |  |  |  |                                      |  |  |   |   |
| 3     | 3b continued re-use of palace dependency           | EJ IV  | Post-imperial Akkadian                                       | 11   | burials  |                                      |  |  |   |   |
|       |  |  |  | 12   | erosion  |                                      |  |  |   |   |
|       |  |  |  | 13   | abandonment; removal of stones from earlier buildings  |                                      |  |  |   |   |
|       |  |  |  | 14   | higher occupation of palace dependency                 |                                      |  |  |   |   |
|       | a  |  | accumulation within AK walls and above destroyed areas of AF |  |  |                                      |  |  |   |   |
|       | b  |  | wall fall and patching of AK building (no rebuilding proper) |  |  |                                      |  |  |   |   |
|       | 3a destruction and first re-use under Tar'am-Agade |  | Naram-Sin / Shar-kali-sharri                                 | 16   | first re-use of AK and AF                              | a                                    | AK: first accumulation that disregards lower installations<br>AF: first accumulation above pavements (largely missing) |  |   |   |
|       |  |  |  |  |  | b                                    | AK: abandonment of earlier installations<br>AF: destruction of areas adjoining AK                                      |  |   |   |
| 2     |  | construction and occupation of Tупkish palace          |  |  |  | Manishtushu / Naram-Sin              | 17   | construction and first occupation of AK, AF, underground structure W | a | accumulation within AK walls and in courtyard; nothing left in AF |
|       |  |  |  |  |  |                                      |  |  | b | extensive packing below first floors of AK and AF                 |
| c     | building of walls in AK and AF                     |  |  |  |  |                                      |  |  |   |   |
| 1     | pre-palace   | Sargon/ Rimush   | 18   | accumulations in A12 platform (X)                  | 19   | unidentified structures in A1 and A5 |  |  |   |   |

Fig. 2 Phase and strata sequence B for area AA (AAsB)

corresponded to the built-up portion of the palace, i.e., to the east and the north. The two large courtyards F and H remained as large depressions, within which a large amount of pitting and dumping occurred. This marked the southern edge of the settlement. The service wing of the palace AK, being lower than AF by more than 2 meters, never did become a platform for houses, but served only for a scattered occupation along the edges of the settlement. In Phase 5, on the other hand, the houses advanced further above the areas of what had been an area of scattered occupation.

## 2.2 The Underground Structure W

Neither the construction nor the accumulations within the Underground Structure W can at present be linked stratigraphically with the Palace AP. It is possible to expect such a link from future excavations, on the assumption that a link existed (and that it is preserved) between the platform X and W.

For now, only a tentative stratigraphic argument can be proposed in this respect. The facts are as follows. (i) The general orientation of sector H of AP is shifted by about 5° with respect to AK: this shift matches the longitudinal axis of W. (ii) The western wall of Sector H functions as a retaining wall, within which a thick subfloor was placed (up to 2 ms, visible through the pit A12f194.) (iii) The projections in the southern wall of AP seem to accommodate the contour of what would have been the tumulus overlaying the dome of W. (iv) The lowermost stratum within W suggests that there was a preexisting structure similar in shape to W. (v) W is built against the retaining walls of AP. (vi) W is underground, and its entrance is about 2 ms. higher in elevation than the lowermost floor at the point where the platform X is first used in connection with AP.

The first three points argue for W being contemporary with, or even earlier than, AP. If so, the following depositional reconstruction may be envisaged. Palace AP was a major building initiative, which required a good deal of leveling and terracing. It also was conditioned by a strong symbolic valence of the platform X and a preexisting version of W. This earlier version may have consisted of only the circular portion of the structure. The level of the formal wing AF was raised considerably over AK by means of terracing along the western side, while, on the other side, a gradient had developed, sloping up in a southerly direction from the platform X.

Additional reasons for dating the structure to the time of the palace are that (i) the stones exhibit the same technique of cutting and laying

as those of the Palace; (ii) the ceramic material of the subfloor below the first floor belongs to phase 2 or late in phase 1 (see 4.4.2). (iii) typological considerations pertaining to objects found in the structure support a chronological development parallel to that of AP (see 4.4.1).

Within a time period equal to Phase 3 of the Palace, there is a growth in deposition of about 1.5 m. At the beginning, an extra stone step was added at the base of the stairwell, resting on top of the first floor. The stairway continues to be in use, and the building is roofed – as shown by the regularity of the deposition, the height of the walls, which remain undamaged, the lack of any evidence of laminations as would have resulted from water settling within the structure.

After the beginning of Phase 4 of the Palace, it appears that the stairway was no longer in use, and that access was through the eroded top of the western portion of the structure. It is the beginning of the abandonment of the structure, when the roof had collapsed. The stones from this collapse were partly washed away by a *wadi*, of which the bed was very visible in the topmost stratigraphy; several of these stones were found still inside the topmost layer of stones.

### 3. The Data: Architecture

#### 3.1 Towards a definition of Sector H: The courtyard of the formal wing

The excavations in unit A13 (under the supervision of Lara Aho) have clarified the architectural and stratigraphic situation of Sector H where the cache of seals of Tar'am-Agade and her court were found. The flagstone pavement in H3 continued east to the baulk. Except for where the pavers were removed to the west, either in phase 3 or possibly in phase 4, the pavement is perfectly preserved (Fig. 3). Clearly, special care was taken in antiquity to keep the pavement clean, so that we could find no trace of phase 2 accumulations laying on it. In other words, the pavement itself belongs to phase 2, but accumulation was allowed to build up on top of it only after phase 2.

In the southeast portion of the exposed area of the pavement, we found a step made of fine white stones (stepping up to the south), flanked by well-hewn stones that define the doorjamb of a wide opening marked by the stone threshold. If we assume this doorway to be in the middle of the southern side of the courtyard (which need not be the case), then we must project a very large courtyard, some 20 x 15 m in size. A full view of this courtyard must have been quite striking in antiquity.

Room H4 to the south seems to have been a wide entry room providing access to this part of the building. We assume that it was paved with the same type of flagstone pavers that are found in H3, and that these would have covered the drain, the outlet of which continues under the H3 pavement.





Fig. 3 Overhead view of paved courtyard H3  
Photo V13d3046 G. Gallacci)

The flagstones would have been removed during the early part of phase 3.

To the west of H4 there was a space (H1) accessed through a wide doorway that provided the effect of an *iwān* (as (so omit) often elsewhere in the Royal Palace). The room walls were covered with white plaster, of which only a small portion in the northeastern corner is fully preserved. The floor was also plastered with a 20 cm thick limestone based conglomerate, of which only a fragment has been preserved in the northwestern corner (already excavated in 1999).

We cannot determine for sure the existence of a smaller room, (as had already been suggested last year omit) (H2) (omit on the floor plan). The following reasons may be adduced in support. (i) The presence of large stones in the sub floor may correspond to a curtain wall. (ii) The presence of a drain in the perimetral wall to the south may indicate the use of the small room H2 as a sort of powder room. (iii) The width of the room required a central support for the roof within the room itself (the doorway itself may have been spanned by wider timber, supported by the wider walls on either side). On the other hand, there is no indication as to how such a small room might have related to the doorway or the rest of the larger room H3, so that it is also possible that H1 and H2 were in fact a single room.

### 3.2 The Underground Structure W

In our earlier reports, we called structure W an “apsidal structure.” The term was meant to be sufficiently generic not to prejudice an understanding of its function.<sup>3</sup> It must be noted that the term is not fully proper for reasons that were already apparent last season. Technically, we do not have here an apse which closes a rectangular chamber, but rather a fully circular chamber which is joined to a square chamber. This results in a floor plan that may be described more properly as a keyhole than as an apsidal structure (Figs. 4 and 5). We will replace the term “apsidal structure” with “underground stone structure” which retains the desired neutral dimension with regard to semantics. The excavations of the 2000 season (under the supervision of John A. Lynch) provided important new evidence towards an understanding of the construction and function of this building. The following structural elements stand out clearly.

(i) *Circularity and verticality of the chamber W3*. A stone wall defines sharply the eastern half of the structure as circular. The wall does not form a complete circle, but, where it joins the square W2,

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<sup>3</sup> For instance, the term *tholos* suggests both functional and historical comparisons that should not be taken for granted, and the term “hypogeum,” though lexically neutral, has in fact come to be associated with an underground grave used for multiple, recurrent burials.



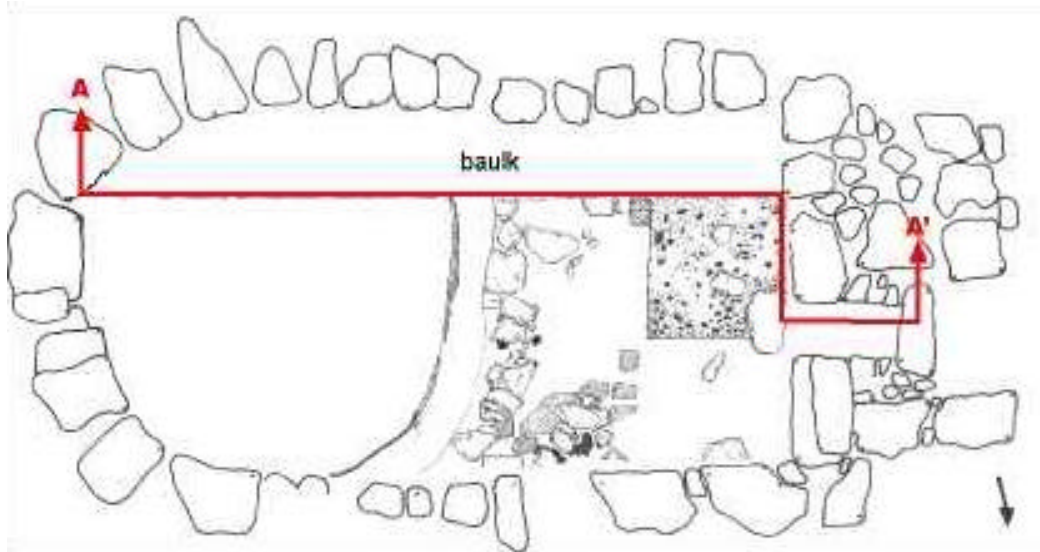


Fig. 4 Plan view of Underground Structure W  
(Drawing by Laura Ramos, with the collaboration of S. Perry and D. Cecchin)

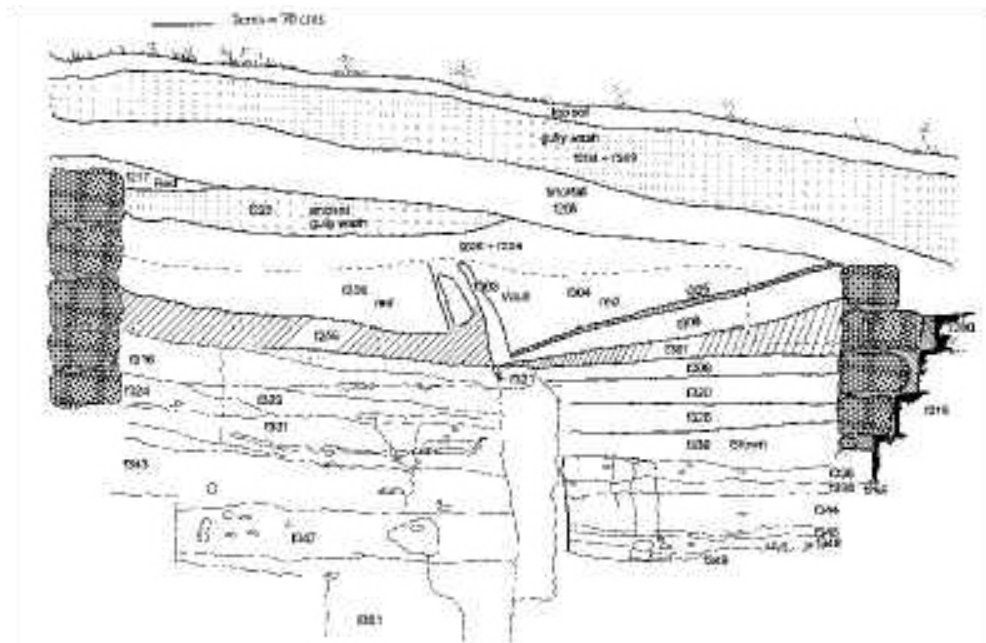


Fig. 5 Profile A-A' of Underground Structure W, looking south  
(Drawing by Laura Ramos)

there is a marked vertical projection to the outside – particularly apparent with the flash illumination that was done at night (Fig. 6). This stone projection reaches all the way to the top of the preserved portion of the wall, as if to suggest some sort of curtain wall reaching all the way to the top. However, no trace of any such wall could be seen.

(ii) *The circular step.* The projection of the walls is matched by a circle of stones (Fig. 7). They are not large enough to have served as the base of a wall, and in any case they were covered by the earliest floor within the square room W2. Hence they must have defined a single, circular step (some 50 cm in height), which would have led down to the lowermost floor of the circular chamber W3. During excavations, mud plaster was visible on the inside of W3: we have left this

standing, in the form of a circular baulk (Fig. 8), which consists on the east of the successive faces of the down step, and on the west of the accumulation edges within the square chamber. The flaking off of the mud plaster on the face of the mud ledge indicates that the layering goes from bottom up: the lower part of the upper layers covers the top part of the lower layers, suggesting a replastering that presupposes an already plastered face of the step. This fact was first noted by J. Lynch, who also pointed out possible correlations in the section between accumulations on either side of the step. The existence of this step was first observed as a fissure in the accumulation,<sup>4</sup> and remained very clearly marked all the way to the bottom.

(iii) *Asymmetry of the stairway.* Access is through a very narrow and steep stairway, which is asymmetrical with respect to the longitudinal axis of the structure.

(iv) *Accumulations and fills.* The accumulations are layered in a very regular manner, with the inclusions lying generally flat, and the alignment being uniformly horizontal – except for the upper strata, which slope sharply upward to the west in W2, and more gently upward to the east in W3.

(v) *Installations.* The most distinctive installation within the structure was a semi-circular depression, defined by the mud ledge that represents the step down from W2. Whether or not the southern baulk may contain additional installations (which might account for the asymmetry just noted) will be shown by future excavations.

(vi) *The stone walls are properly to be understood as the lining of a pit.* They never stood as walls proper. The height on the southern side reaches almost 5 m, and will be even greater upon completion of the excavations.

(vii) *Roofing.* The top of the walls juts in about 40 cm from the base. This, plus the general nature of the building, suggests that the space was roofed by means of a corbelled vault. Large stone slabs of the type that would be appropriate for such usage are found in the vicinity, having been re-used to mark the entrance to a local vineyard. The slabs measure about 2 x 1 m, and are about 20 to 30 cm thick. Since the building was underground, the weight of the overlaying dirt would have contributed to the solidity of the roof.

## 4. The Data: Objects

### 4.1 The seals of Unap

When the first seal of Unap (A1.144) was excavated, very little of it could be seen, much less understood. We saw the sides of the case of an inscription box and a few vague figures but nothing else. During the process of revision of the entire glyptic corpus from AK for final publication, our director of conservation, Dr. Sophie Bonetti, worked on this sealing as well. After her careful new cleaning and consolidation, both the scene and the cuneiform legend could be read properly. The iconography indicates a standard Akkadian contest scene (Figs. 9a and 10a) with one pair being a lion and a bull man and the other a hero or bull man<sup>5</sup> and an unclear figure. The cleaning and consolidation made it also possible to read the inscription, which showed us a new element of Urkesh glyptics. The name of Tupkish, with his title of *endan Urkesh put in italics endan of Urkesh*, appeared at the beginning of the seal legend, and was followed by the name of an official that could not be read clearly. Such referential use of the name of the king in extraposition at the beginning of the legend is common in Akkadian seal legends, but had not so far been found in Urkesh.

In the continuing study of the fragments of seal impressions from the Tar'am-Agade cache, a contest scene (A13.70) was again looked at carefully (Fig. 9b and 10b). It could now be seen that it had been recut, and we recognized that a single cuneiform sign, Ú, could be read beneath a figure. There was no overall cuneiform legend visible, but the sign was clear. This brought to mind the seal legend in A1.144 that had just been cleaned and in which a case began, similarly, with the sign Ú.

The importance of a possible correspondence between the two seal impressions was immediately apparent, since they came from two different wings of the palace, AK and AF. No such correlation had thus far been found. Close-up digital pictures showed details that none of us had seen with any number of magnifying glasses. In particular, it was clear that there were two additional signs in A13.70, in exactly the same position as in A1.144 – the sign NA after the sign Ú, and the sign KI at the end of the lowermost case on the left of the seal legend. These

<sup>4</sup> It is visible in Illustration 5 of our last report published in *MDOG* 132 (2000) p.149.

<sup>5</sup> There is some suggestion of a horn, indicating that this figure should be identified as a second bull man as shown in our drawing, but this is not entirely clear.

matched exactly the signs on A1.144. In fact, the digital photos made it possible to read what had not yet been read in A1.144, namely both the sign NA and the beginning of the sign A[P] after the sign Ú. This gave us the reading *Una[p-]*, which is well known as the first element of a Hurrian personal name.<sup>6</sup>

The new readings shows that *Una[p-]* was a high official in the court of Tupkish, whose seal was used for the storage of goods in room B1 of the service wing AK of the Royal Palace.<sup>7</sup> He used a terminology and seal style that was common in Akkadian glyptics for important officials during the reign of Naram-Sin. At a slightly later time, just before or during the tenure of Tar'am-Agade in Urkesh, his seal was recut so that a figure was placed on top of the cuneiform legend that was thereby largely obliterated. This need not be seen as a deliberate act of defacement, but simply as the continued use of a particularly beautiful seal by some other official with a different name. An impression of this recut<sup>8</sup> version of what had been the seal of *Una[p-]* was found in the cache with the seal impressions of Tar'am-Agade and other members of her court. This obviously establishes, beyond any doubt, the earlier date of Tupkish and Uqnitum, and therefore of the entire, very large inventory of material stratified within the early accumulations of the Royal Palace (see below, 6.1).

## 4.2 A new endan of Urkesh

A single sealing found in the same cache with Tar'am-Agade's many sealings bears two rollings of a seal with an inscription that is badly broken but of great importance (Fig. 11). The inscription box contains three cases, which can be read: *[xxx] / [e]n-[da-an] / [U]r-kèš.[KI]*. In spite of the very fragmentary nature of the text, the reading suggested seems inescapable.<sup>9</sup>

In the third case, the sign *kèš* is written in the less frequent sequence of components attested in a pre-Sargonic administrative document and in a seal of Tupkish.<sup>10</sup> What little is left of the sign *ur* leaves little doubt as to its integration, especially considering the placement within the case. The determinative KI to the right is broken, but there is just enough space for it.

In the second case there is a small portion of a sign that can only be read as *en*. Given the reading *[U]r-kèš.[KI]* in case 3, and considering the dimension of the cases, we can think of no other plausible integration but the one suggested, i.e., *[e]n-[da-an]*.

The first case, which would have contained the name of the *endan*, is missing altogether, except for one small but important element. A tiny fragment of the frame is present, located in such a way as to show that the box extended enough to the right to accommodate the readings of *[e]n-[da-an]* and of *[U]r-kèš.[KI]* in the following two cases as suggested above.

The presence of an *endan* sealing in the same cache together with the many sealings of Tar'am-Agade suggests very strongly that the two individuals were closely linked, and that they may have been the ruling *endan* and his queen, i. e., his principal wife. The lack of a reference to the *endan* in Tar'am-Agade's own seal is consistent with the seals of Uqnitum, none of which, except one, mention her husband Tupkish.

The new *endan* seal shows a contest scene carved in a different style than the other contest scenes found in the cache. In this seal, a short skirted human stands before a human headed bull with his head shown full-face. A

<sup>6</sup> The name *Unap-šenni* occurs for a supervisor mentioned in another text from Urkesh, L. Milano, *Mozan 2. The Epigraphic Finds of the Sixth Season*, Syro-Mesopotamian Studies 5/1, 1991, p. 18, I 4'.

<sup>7</sup> See especially G. Buccellati and M. Kelly-Buccellati, "The Royal Storehouse of Urkesh: The Glyptic Evidence from the Southwestern Wing," *Archiv für Orientforschung* 42-43 (1995-96) 1-32.

<sup>8</sup> That we are not dealing with an overrolling is shown especially by the fact that the figure appearing over the inscription is in high relief over a very clear impression of the legend in low relief. Were this an overrolling, one would have to assume that a new layer of clay had been placed on the inscription before the presumed second rolling took place.

<sup>9</sup> As with the case of the *Unap-[ ]* seals, a reading was possible only as a result of our additional work in the Summer 2001, and specifically because of the intervention of our conservator, Sophie Bonetti, and our photographer, Giuseppe Gallacci, whose work we wish to acknowledge in a very special way. – As will be clear from the drawings on Fig. 11, there is a single sealing with two rollings: the label A13.15 refers to the sealing, and the label AFc4 to the composite drawing.

<sup>10</sup> See G. Buccellati and M. Kelly-Buccellati, "The Seals of the King of Urkesh: Evidence from the Western Wing of the Royal Storehouse AK," *Wiener Zeitschrift für die Kunde des Morgenlandes* 86 (1996) p. 97.

second pair includes another human headed bull and a nude hero wearing a belt, both shown full-face. The backward tilt of the necks and heads of the human headed bulls, the end of the twisted tail that curves behind the back leg, the hero wearing a skirt and the thick modeling of the nose, lips, and beard of the figures are characteristics of Early Akkadian seals.<sup>11</sup> The thick strand, pointed beards of the belted hero and human-headed bull along with their striking facial features which include eyes set at a slight diagonal to the nose and the unusual shaped mouth of the human-headed bull make us question the possibility of a local school of seal carving in the north even in the earlier part of the Akkadian dynasty. This school would have been heavily influenced by the southern style of carving and iconography but also stimulated by the local taste for an expressionistic emphasis in the figures.

### 4.3 Tuli, the mistress of the royal kitchen

During the study of the seal impressions from earlier excavations in the Royal Palace, we have been able to distinguish a second seal of the cook (Fig. 12) – an identification that was first proposed by Elena Devecchi. The new seal is particularly important because it provides her name, which could not be read in the impressions of the first seal, badly worn. We already thought that the inscription case above the small animal would contain the word KIŠIB followed by her name, as in the seal of the nurse, which reads “seal of Zamena, the nurse of Uqnitum.” Indeed, the new impression of the second seal of the cook begins with the word KIŠIB, possibly preceded in the broken section by the determinative NA<sub>4</sub> for “stone.” It is then followed by the name Tu-li, which is found as an element of Hurrian onomastics. We are grateful to G. Wilhelm for providing the following information:

There is a name Tuliya well attested at Nuzi. (NPN p. 157)... The name *Túl-li, Du-ul-li* at Emar presumably is not related. A Hurrian word <sup>GIŠ</sup> *tuli* is attested in ChS I/1 Nr. 6 iii 47 (<sup>GIŠ</sup> *túl-la-a-ša*, Dat. pl. *\*tuli=na=až=a*). Haas ZA 79 (1989) 269 suggests the meaning “Weinstock”, which would fit the context.

It is particularly significant that the two women most closely connected with the private and public life of the queen Uqnitum should have a Hurrian name, Tuli and Zamena – all the more so since Uqnitum has an Akkadian name and may thus almost assuredly be identified as Akkadian in origin. Since the king, too, has a Hurrian name (Tupkiš), it appears that the majority of the persons closest to the queen were indeed from Urkesh itself.

The iconography of the second seal is very similar to that of the first. Differences between the two seals are however striking. The style of the second seal is more realistic, especially in the proportions of the figures. Iconographically the dress of both the butcher and the maidservant are different than on the earlier seal and the single container the maidservant is bending over is larger. Both the extensive use of the seal (as evidenced by the first seal having been worn to a point that the name was no longer visible), and the presence of a second seal that is carved in a very similar manner are interesting because the two new fragments were found in a courtyard of the palace (Area A9) whereas the earlier sealings came from the AK Service Wing.

## 4.4 The artefacts from the underground chamber (M. Kelly-Buccellati)

### 4.4.1 The lady of the underground

The most interesting object from the underground stone structure W is an anthropomorphic vessel, A12.108 (see Fig. 13, 14). It is a small round-bodied tripod jar with short neck. Incised on the lower exterior of the body is a small pubic triangle decorated with a deep hole in the center and shallower holes filling the remaining portion of the triangle. Other details of the female body are applied instead to parts of the jar, these include both arms which are bent so that the over-large hands cup both breasts. The breasts are applied pyramidal shaped pellets. Each arm has two parallel incised lines around the wrists indicating bracelets. The arms extend from near the base of the neck of the vessel; between the upper arms is a double strand necklace that does not continue around the back of the neck. The necklace is composed of a series of impressed ovals that were made with a small tool striated on the exterior that left a series of tiny parallel lines on the interior edge of these ovals. The neck of the figure is the

<sup>11</sup> See D. M. Matthews, *The Early Glyptic of Tell Brak. Cylinder Seals of Third Millennium Syria*, Orbis Biblicus et Orientalis, Series Archaeologica 15, Freiburg and Göttingen. 1997, no. 283; R. M. Boehmer, *Die Entwicklung der Glyptik während der Akkad-Zeit*. Untersuchungen zur Assyriologie und Vorderasiatischen Archäologie, 4. Berlin 1965, figs. 53, 58, 74

same as the jar, an indication that the person who made it conceived the whole jar as the figure of the woman and not as two distinct figures. The low relief of the head shows a wide frontally positioned face with large eyes, a wide but well formed nose with the nostrils indicated and a somewhat distorted mouth. The ears, while large, have no holes for earrings. Her hair is striking. The hair pattern is carefully incised with a herring bone design; at its widest there are parts of five braids, with generally one main one on each side of the jar rim and others added as the hair becomes wider down the back of the figure. The hair expands into a square shape near its termination at the mid-point of the vessel. She is carrying a small jar on her head that serves as the tiny opening of the vessel itself. This miniature jar reflects the shape of the vessel except that it has a wide base.

#### 4.4.2 Ceramics from selected features of the Underground Structure W

That the construction<sup>12</sup> of the Underground Structure W occurred in Phase 2 of the service wing AK of the palace, is shown by a comparison between the ceramics from the accumulation f349 of W and stratum 17a of AK. In both, hole mouth jars with exterior crescent lug handles (Fig. 15 nos. 4,5) are found along with the typical conical cups and conical bowls (Fig. 15 nos. 7-9). It may be that this phase is slightly earlier in W than in AK stratum 17a because of the presence of a double mouth jar rim (Fig. 15 no. 10) and especially a large number of necked jars with extremely flaring rims (Fig. 15 nos. 1,2). However, functional differences may account for the large number of these jars in the W structure. In the pottery from this feature, Simple, and the related Wet Smooth ware, are common; this is also characteristic for the AK stratum (17a).<sup>13</sup>

Within the structure, change in ceramic types came about gradually as shown by the number of types which continue from building phase to building phase. Feature 347 is connected with the mid-stairway use of the structure. In it are a number of bowls with a rounded carination (Fig. 16, nos. 6-8). Sharply carinated bowls also occur, although they are not frequent. While the bowls with a rounded carination are rarely found in stratum 17a of AK, the sharply carinated bowl does not appear there. They are found for the first time in stratum 15, but are not common there. Necked jars with a beaked rim (Fig. 16, no. 1) are found in both AK strata 17 and 15. Thin walled Simple and Fine Chaff tempered ware bowls with a ring base appear for the first time (Fig. 16 nos. 10-11) as well as jars with a square rim (Fig. 16, nos. 2-4). Fine Chaff ware and a red firing ware with calcite inclusions (RC1) are more common than Simple and Wet Smooth wares. A Post-imperial Akkadian date fits also the incised jar shoulder found in this feature (Fig. 16, no. 5).

In feature 328 of the W structure, connected with the use of the upper stairs, a seal impression (A12.82) was discovered that includes a legend with a name ending in *tu-p-še-er*. It is probably to be dated to the Post-imperial Akkadian period. The iconography of the presentation scene, in this case with Shamash, becomes more important in the late Naram-Sin period and in this impression the carving of the dress and the stool are close to classic Akkadian style; on the other hand, the sharp linear carving of the facial features are clearly Post-imperial Akkadian. The date of the seal could probably be extended into the very beginning of the Ur III period. A deeper type of carinated bowl with a rounded carination (Fig. 17, nos. 10-11) occurs here and in AK stratum 15 and continues into stratum 14a.<sup>14</sup> The bowl with a rounded carination is less common in feature 328. A small cup with the widest part near the base (Fig. 17, no. 2) continues into Phase 4a and becomes one of the typical shapes for Phase 4b and later.

From this same phase of the W structure, in feature 343, came the anthropomorphic vessel (see the previous section) and a fragment of an impression of an uninscribed "Post-Akkadian" style seal. The sherds of this feature reflect the same bowl types as feature 328. Jars with straight necks predominate in both, some with a double strand rim (Fig. 17, no. 5).<sup>15</sup> Jars with beaked and square rims are common (Fig. 17, nos. 6-7). In AK they continue from stratum 15 into 14.

<sup>12</sup>"Construction" refers here to the subfloor. There is only a minimal amount of ceramic material from the very first floor (f348) of W2.

<sup>13</sup>The ware codes are as follows: P – pebble tempered cooking pots, CH – heavily chaff tempered, FC – finer chaff tempered, RC1 – (old ROG) red firing clay with heavy calcite inclusions, RC2 – finer variety of RC1, S – Simple ware, WS – wet smoothed variety of Simple ware.

<sup>14</sup> See our last report, MDOG 132 (2000) Fig. 17.

<sup>15</sup> *ibid.*



While many previous forms continue, in feature 316 ribbed rim bowls and jars start to appear (Fig. 18, nos. 1, 3, 10). The same bowls with rounded carination begin to have hints of ribbing above the carination. Cups made in a green type of Simple ware have incised decoration with vertical (omit vertical) burnishing down the body (Fig. 18, nos. 7-8). They may be an imitation of a Ninevite V vessels. Bowls and jars with ribbed rims appear in AK stratum 10 and become typical for stratum 8. However, none of the other typical types for stratum 8 are present in this feature. From this we conclude that the date of this phase of the W structure is closer to AK stratum 10, dated to the Ur III period.

## 5. Depositional and Functional Inferences

### 5.1 The phase 3 building as a palace dependency

We had previously defined phase 3 as a non-palace occupation of the palace.<sup>16</sup> This was based on the observation that the AK building continues to function as a roofed structure, with exactly the same plan layout it had during phase 2, yet without any of its installations. It was clear that the entire building was in use as a single organized space with the same architectural layout as before; that there was no rearrangement of the interior and no major new additions; and that its original function within the palace administration was no longer applicable. We think that the formal wing had been destroyed, at least in the limited area where we have begun its exposure, i.e., sector G (unit A9), sector H (unit A13), and possibly sector I (unit A7). So the question was left open as to the use, if any, of the remains of the formal wing building during the presumed non-palace occupation of the service wing (phase 3).

Several major new factors have emerged that help us elucidate this question, and contribute to a cogent explanation for the overall function of the structural remains of the Palace during phase 3. We propose that the formal wing of the palace (AF) was damaged by a localized destruction that affected the area in closer proximity to the service wing AK. Following this event, both wings of the palace continued to be used as a palace dependency for a new palace built nearby, possibly to the south. As such, it continued under direct palace control, even though not for its original function. The fact that none of the phase 2 installations in AK continue into phase 3 is explained by the change in function; while the fact that no alterations took place in the circulation layout is explained by its continued palace use (had the building been taken over for other purposes (e.g., by squatters), there would certainly have been such changes as the blocking of doorways or the re-arrangement of spaces, particularly the larger rooms). The two sub-phases that had previously been recognized within AK are then applicable to AF as well, and the first of these sub-phases (3a) is the one dated to Tar'am-Agade. Finally, we presume that the underground stone structure W, built or re-built at the time of the original construction of the Palace (phase 2), retained its original function during the entire duration of phase 3, perhaps extending into phase 4a (see above, 2.2).

The continued use of the underground stone structure W for the same function for which it had been originally built suggests that it had retained its symbolic significance and that this general area had remained important, in spite of the ruined state of rooms H1 and H2 in AF and of the more modest appearance of courtyard F in AK. This is explained by considering that AF/AK were not simply abandoned or rearranged for non-palace purposes but were rather destined to a different palace use – which is precisely what we mean by referring to the phase 3 occupation of AF/AK as a palace dependency.

### 5.2 Functional uses of the palace and the differential nature of the deposition

Because of a number of factors, the nature of the deposition differs greatly between the two wings of the Palace. In the formal wing AF we have found practically no accumulation belonging to phase 2 (Tupkish). Phase 3a (Tar'am-Agade) is represented clearly only by the cache of seal impressions that was an isolated, chance deposit on top of the damaged floor following the destruction of (portions of) AF. In the service AK, on the other hand, we have accumulations about 30 to 50 cms in thickness which contain the bulk of the material belonging to Tupkish,

<sup>16</sup> See our last report, *MDOG* 132 (2000) p. 153.

Uqnitum and their court; and the stratum that is deposited on top of the Tupakan stratum contains no direct evidence of Tar'am-Agade.

This discrepancy can be explained as follows. The portions of the formal wing excavated so far (in Sector H) had beautiful hard floor surfaces – stone slabs in H3 and a thick cement-like pavement in H1. These factors account for the lack of noticeable accumulations on top of the floor surfaces: the aesthetic quality of the floor surfaces would have promoted greater care in keeping them spotless, the formal nature of the space would have required it, and the firmness of the material would have made it possible. In this light, it stands to reason that no material relating to Tupakan (phase 2) should have been found in Sector H. Rather, the first accumulations we find resting on these hard floors are from phase 3, when the floors are already damaged and dirt is allowed to accumulate on top of them (it is in this situation that the Tar'am-Agade cache is deposited). This accumulation must have happened in a relatively short period of time, because there is little disturbance of the stone pavement, which would presumably have been “quarried” had it remained exposed with no palace use for a considerable span of time. It is also likely that the stone pavement was covered (and protected) by a wall fall, of which we have begun to see limited evidence in the northern portion of H1 as exposed so far. If this reconstruction is correct, it stands to reason that we should find no direct evidence for activities linked to Tar'am-Agade and her court, in either AK or AF (except, of course, for the discard of the cache of door sealings).

### 5.3 A possible stairwell linking service and formal wings

A curious feature found within the northern perimetral wall of Sector C may provide indirect evidence for the existence of a stairwell in that location linking AK and AF. Fully within the stone substructure of the wall we found a good pebble floor, which is nested within the large stone blocks of the wall itself. It was found just below a pit that, however, stopped short of the pebble pavement and could not easily have been the reason for the pavement itself, which is too well laid for a pit, and which reached in part below the stones of the wall itself. The impression one gains is of a niche set in place at the time the wall was originally built. (This feature is shown in white on the floor plan in Fig. 1)

The elevation of this pebble floor within the presumed niche is about halfway between the elevation of the AK courtyard F1 (8250) and the elevation of the AF courtyard H3 (8500). The particularity of the notch which room G2 creates in the perimetral wall of AK had already suggested to us that this might be the proper place for a stairwell bridging the difference in elevation between AK and AF. The possibility of a niche might agree with this hypothesis, since it would be placed at the elevation where we would expect the midway landing to be.

It should be stressed, however, that we have at present no evidence of steps within such a presumed stairwell, most of which is occupied by a very high baulk which will require several seasons of excavation before we can reach the presumed level of the staircase. Also, the presence of a doorjamb clearly visible between G1 and G2 may suggest that G2 is a room rather than a stairwell, thus arguing against the stairwell hypothesis.

### 5.4 A functional hypothesis for the Underground Structure W.

An open question in the overall assessment of the Underground Structure W pertains to its function. No easy answer emerges from an examination of its structural elements, and we do not know of convincing comparative material. The major factors that stand out are: the massiveness of the construction; the underground situation; the stepped two-chamber layout; the difficulty of access; the evenness of the accumulations; the continuity of the deposition. The first four relate to the original construction, the latter two to its use as documented at present. It is conceivable that full excavation of the circular chamber, as well as of the baulk in the southern portion of the structure, may add a decisive element for an understanding of the structure's original function. It may turn out to have been a (ceremonial ?) well that dried up, or a tomb that was abandoned. But even if such a clarification were to be forthcoming during next year's excavations, the regularity and continuity of use remains a factor that invites explanation. The following may be considered.

It appears that the structure served a purpose that was quasi-domestic in nature. Certainly this was not an open dump, as even a casual comparison with the large nearby trash pits and hollows from the post-Palace phases can easily document. The accumulations are instead of a type expected within a household. And yet, this was by no means a normal house – given the difficulty of access through the stairway, the persistence of the insubstantial dis-

inction between the circular and the square portions of the structure (W3 and W2), the limited size of the space available, the total lack of natural light. Could this, then, be a structure where a periodic cultic event in honor of the royal ancestors would take place? One is tempted to think, for example, of the *É ma-tim* known from the enthronement texts of Ebla.<sup>17</sup> If so, the fact that the structure retained for a period of more than two centuries the characteristics noted above suggests an impressive continuity in local traditions. The hypothetical nature of this suggestion must be stressed. It must also be noted that such an interpretation implies that the original function of the structure should as well have been funerary in nature. Should it turn out to be a dried out well, for instance, it could not have been adapted to a cult in honor of the ancestors.

## 6. Historical notes

### 6.1 The date of Tupkish

We believe that our analysis of the seals of *Unap-[ ]* (see above, 4.1) shows unequivocally that Tupkish was earlier than Tar'am-Agade, thereby confirming our previous understanding that was based on the stratigraphy of the building and on the typology, especially of the glyptics.<sup>18</sup> The implications may be briefly spelled out as follows.

Even if Tar'am-Agade were to have survived her father by a considerable length of time, the fact that she uses her filiation as her main title in her seal suggests that she was present in Urkesh while her father was still alive. By then, she probably was no longer living in the AP Royal Palace, since the door sealings that bear her name were discarded on a damaged floor of the same. Hence it appears logical to think that there was enough time for the AP palace to have been built, occupied, and then vacated by the royal court and the royal family before or just at the time when Tar'am-Agade came to Urkesh. Since Tupkish belongs with the very first occupation of the AP Palace, his reign must go back to the beginning of Naram-Sin at the very latest, and possibly earlier.

This general reconstruction of the chronology impacts considerably on a variety of topics, to which we can only refer here in passing. They concern: (1) the political importance of Urkesh as one of the major Syrian kingdoms that seems to have remained independent of Akkadian control in the classic period of Akkadian ascendancy; (2) the importance of Urkesh as a focal point for artistic development, since some aspects of the style associated with its workshops coincide with a high point of Akkadian art; (3) the emergence of the vast body of stratified and chronologically firm ceramic types from the Royal Palace (some 150,000 sherds and vessels) as an important point of reference for ceramic typology in northeastern Syria.

### 6.2 The *endans* of Urkesh

In contradistinction to any other kingdom of the Khabur region in this period, Urkesh can now boast a list of at least seven kings (see Fig. 19). Three of these bear the title *endan*. For one of these, Tupkish, both *endan* and LUGAL are attested. The others bear only the title LUGAL or LÚ, but since the context in which the title occurs is Akkadian or Sumerian, it is possible that either term was used as a logogram for *endan*. Also, all the kings' names (except for Te'irru, from Old Babylonian times, possibly questionable) can be interpreted as Hurrian.

Elsewhere<sup>19</sup> the idea was put forth that the lions of Tish-atal may have come from Temple BA at the top of the Tell. Such an early date for Tish-atal had been proposed when it was first published (Parrot and Nougayrol

<sup>17</sup> See P. Fronzaroli, *Testi rituali della regalità* (Archivio L.2769), ARET IX, Rome 1993. The term can be interpreted as "house of death" or "house of the land" (see especially P. Fronzaroli., "Il culto dei re defunti in ARET 3, 178," *Miscellanea Eblaica*, 1 (1988) 1-33; "The Ritual Texts of Ebla," *Literature and Literary Language at Ebla. Quaderni di Semitistica* 18, 1992, 163-185). For an underground funerary structure, both terms would be applicable. See also M.-C. Trémouille, "La religione dei Hurriti," *La parola del passato*. 55 (2000) p. 152ff. For a comprehensive and insightful recent study of funerary customs and structures see A. Porter, *Mortality, Monuments and Mobility: Ancestor Traditions and the Transcendence of Space*, PhD Diss. Chicago, 2000.

<sup>18</sup> See our last report in the *MDOG* 132 (2000) pp. 136-139, 152-154.

<sup>19</sup> G. Buccellati, "Urkesh as Tell Mozan: Profiles of the Ancient City," in G. Buccellati and M. Kelly-Buccellati, *Urkesh and the Hurrians. Studies in Honor of Lloyd Cotsen. Bibliotheca Mesopotamica* 26, Malibu 1998, p. 78ff.

1948), and even though the general current opinion is that they are later, there do not seem to be conclusive arguments in that respect. On this basis we are placing Tish-atal, however tentatively, before Tupkish.

Since the father of Atal-shen also bears the royal title, it seems logical to assume that he was, like his son, a ruler of Urkesh, even though this is not specified in Atal-shen's inscription.

Ann-atal is mentioned in an Ur III tablet with the title LÚ, which may simply stand in lieu of a gentilic, but is more likely to represent a political title. An "ambassador" from Urkesh, also mentioned in an Ur III tablet, may or may not represent the same Ann-atal at the court of the Ur III kings.

### 6.3 The antiquity of Urkesh and the "rise of Hurrian kingdoms"

The accepted view until now has been that Urkesh was a petty kingdom that arose in the vacuum following the collapse of the Akkadian empire. This view is generally extended to include, together with Urkesh, a group of Hurrian kingdoms that remain rather ill defined. It has been our general understanding of the chronology and of the pottery of the Tupkish strata in particular that the Royal Palace was built in the Akkadian period.<sup>20</sup> The discovery, in 1999, of the seal impressions of Tar'am-Agade brought a first confirmation since we could conclude, on stratigraphic grounds alone, that the Tupkish accumulations in the service wing AK pre-dated Tar'am-Agade, and thus should be dated to at least the early reign of Naram-Sin, if not earlier. The discovery of the seal impression of Unap (see above, 4.1) has now confirmed unequivocally our position.<sup>21</sup>

This should induce a revision of a broadly held point of view according to which the "rise of the Hurrian kingdoms" is considered a late phenomenon. Thus, for instance, Marc Lebeau places it in the Early Jezirah V period, after the "Akkadian impact on the Syrian Jezirah,"<sup>22</sup> and J. Bretschneider says that the Hurrians "arrived in the region, founding new royal cities such as Urkesh," after 2250.<sup>23</sup> Given our knowledge of a sequence of Urkesh rulers that goes back to at least 2200, and most likely earlier (see Fig. 19), it can safely be excluded that this Hurrian dynasty had arrived at just the time when the palace was built, and that in quick succession two Akkadian queens, Uqnitum<sup>24</sup> and Tar'am-Agade, came in marriage to the newcomers.

In fact, the arguments which we have developed on the basis of history, mythology and archaeology<sup>25</sup> indicate that Urkesh had achieved full urban status at quite an earlier stage in the third millennium. There is no reason to doubt that such an early city was Hurrian from the beginning, so that the "rise of the Hurrian kingdoms" must be placed, in our view, just as early.

## 7. Conservation (G. Buccellati and Ali Ali)

In 1999 we made an experiment in conservation of the mudbrick walls which was very successful, so we decided to apply the same method to all the walls of the AP palace (see Fig. 20). Ali Ali was responsible for the

<sup>20</sup> See G. Buccellati and M. Kelly-Buccellati, "Moza, Tall," in *Reallexikon der Assyriologie* 8 (1995) 392a; "The Royal Storehouse of Urkesh," *Archiv für Orientforschung* 42-43 (1995-96) p. 6; "Urkesh, The First Hurrian Capital," *Biblical Archaeologist*, 60 (1997) 91.

<sup>21</sup> We presented our argument in our last report, *MDOG* 132 (2000) pp. 153-55, and, with the inclusion of the *Unap*-material, in our article "Tar'am-Agade, Daughter of Naram-Sin, at Urkesh," in a forthcoming *Festschrift* volume.

<sup>22</sup> "Stratified Archaeological Evidence and Compared Periodizations in the Syrian Jezirah during the Third Millennium B.C.," C. Amro and H. Hauptmann, *Chronologie des pays du Caucase et de l'Euphrate aux IV<sup>e</sup>-III<sup>e</sup> millénaires. Actes du colloque d'Isatbul, 16-19 décembre 1998*, Paris: de Boccard, 2000, p.192.

<sup>23</sup> "Nabada: The Buried City," *Scientific American* 283 (2000) 74-81. The wording in the article indicates that such a founding of Urkesh took place in the second millennium. This, however, must be the result of an error in translation, since an analogous French text by the same author refers to the arrival of the Hurrians and their founding of Urkesh simply to a time after 2250 B.C. (J. Bretschneider, "Nabada, relais des caravans en haute Mésopotamie," *Pour la science, Dossier: Les cités antiques*, Paris 1999, p. 18).

<sup>24</sup> Strictly speaking, of Uqnitum we only know that she has an Akkadian name, not that she is an Akkadian princess.

<sup>25</sup> See especially G. Buccellati and M. Kelly-Buccellati, "Das archäologische Projekt Tall Moza/Urkeš," *Mitteilungen der Deutschen Orient-Gesellschaft zu Berlin* 131 (1999) pp. 12-15.; P. Pfälzner and H. Dohmann-Pfälzner, .... See also "In Search of Hurrian Urkesh," in *Archaeology Odyssey* 4 (2001) 16-27.

implementation of the project, coordinating the work of our friend Sabagh Kassem, both in his smith shop in Amuda and directly in the field, and of Ahmad Hantush, a tent maker who took up residence in our living room and spent several days working around the clock to complete the job before our departure.

After the experimental phase of last year, we were able to streamline our operation even further. Following Ali Ali's design of the components needed, Sabagh and his brothers Abd el-Jabbar and Hassun Kassem, produced fully modular portions of the iron framework. The modularity works in a double way. On the one hand, the vertical struts that support the entire structure are so designed that they can be added in place by being inserted in slots at the corner of medium size panels; these struts are further modular in that they can consist of several segments that adjust so as to provide the desired height. On the other hand, the horizontal panels are modular in that they are interlocked by means of projections in one panel that fit into slots on the adjoining panel.

The pertinent measurements are as follows. The horizontal panels average about 210 x 230 cm; the height of the vertical struts vary between 125 and 390 cms.; the strips which form the horizontal grid are 4 cm wide and .5 cm thick; the ties between panels (generally on the narrow side of the panels) consist of a square section projection, 1.5 x 1.5 cm in section, and between 20 and 30 cm in length; the feet consist of a round section rebar 2.5 cm in diameter and about 60 cm in length. The total amount of iron used was 5 tons, at a cost of 42 Syrian pounds per kilo, including installation. The total amount of tarp used was 1700 m<sup>2</sup>, at a cost of 60 Syrian pounds per m<sup>2</sup>, including sewing.

This modularity is particularly important because it allows us to complete the various components one by one and then to fit them more easily into a combined overall structure. As a result, the entire structure can be not only put in place with great ease, but also removed without undue difficulty. As a matter of fact, after we had put 80% of the system in place, we did remove it in order to take a final set of overhead pictures without the wall covers. The full removal process took 6.5 hours. All modules were numbered to make re-installation easier. It must be considered that the need for such a removal will arise only seldom, in practice only when it is desired to allow a thorough inspection of the original state of the walls, for instance in order to take new overhead pictures of the walls in their original state.

Partial inspection of the walls remains of course possible by opening the "windows" that we have built into the tent fabric. But in addition to the windows, the construction as designed this year was such that in principle any side of the tent flaps hanging over the walls can be lifted at will, in order to expose the wall in its pristine state. This feature has not been fully implemented in 2000, but we plan to do so in 2001.

The system as designed has also the great advantage that it is in no way invasive. The canvas is detached from the wall surface by some 10 cm, and the feet of the supporting struts rest on the backfill that covers the floor surfaces. In this way, there is no contact whatsoever with the walls themselves or the floors connected with these walls.

It is important to note that the interlocking is so designed that almost the entire structure becomes a single unit: in the entire AK building, all the walls are interlocking and form just three single units! This, plus the sheer weight of the iron framework, makes the entire structure perfectly solid and secures it against any side movement, whether from the wind or from people or animals.

In fact, the entire palace is now blocked to outside access, thereby providing protection against occasional intruders, such as children playing among the ruins, or sheep attracted by the vegetation that grows after the winter rains. There is still the problem of animals that can burrow under the tarps, such as dogs or foxes, but this seems a rather limited danger. There are two locked gates, one on the western side of Sector G, and the other on the southern side of Sector H: through these, access can be gained to the inside – the southern gate corresponding probably to the main ancient entrance to the palace complex.

In addition to protecting what remains of the ancient walls, we also set up the iron and canvas structure in the place of the "negative walls," i.e., those walls that have left a trace even though no stones or bricks have remained. These walls had been marked in the past by sandbags: while they gave an approximate idea of the layout of the building, their outline did not match the size of the ancient walls. In addition, they were so low, that one could not form a proper impression of the architectural volumes represented by the ancient building.

One of the unexpected results that emerged at the end of the project was the wholly new sense of precisely such architectural volume as provided by the reconstructed building. On a mundane level, not being able to walk any longer over the walls gave a much clearer perception of what it meant to walk through these rooms. The ab-

stract notion of this fact had always been obvious from a study of the floor plan (hence our notion of nodal rooms and of tightly controlled access). However, it is only when forced to walk from one room to the next, and through a whole series of bounded spaces before getting to those located furthest away, that one appreciates what a veritable maze the building was.

Thus it is that our reconstruction provides an understanding of the architectural value of the building as built-up space, rather than a cluster of ruins. Not that we disregard the value of the ruin as such. Far from it, our whole effort is aimed, precisely, at retaining exactly what is found. As a matter of fact, protection is extended to details that are exquisitely stratigraphic in nature, i.e., aspects of the excavation that are important not for aesthetic fruition, but exclusively for documentary purposes. Two cases in point are the few remnants of plaster on the wall in the northeast corner of room H1, and the disturbed pavement between rooms H2 and H4 where the cache of door sealings with the impressions of the seal of Tar'am-Agade was found. In this manner, we do preserve the ruin, because this is all we have. But we point at the same time in the direction of what was before the ruin – the architecture.