

The Floodwaters of Urkesh and the Structural Coherence of the Urkesh Temple Complex

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1 Introduction

1.1 The structural coherence of the Temple Terrace

By the middle of the third millennium, the Urkesh Temple Terrace complex had reached a level of structural coherence that was to define the space for the next twelve centuries.¹ It was a “classical” formulation in the sense that, besides withstanding the test of time for a span of more than a millennium it seems certain to have been built directly on top of an even earlier, and similar, configuration. It is also the only one we will probably ever get to know well: the very fact that it has come down to us in a perfect state of preservation will make it difficult to proceed with any large scale excavation beneath it.

By “structural coherence” I mean that the various elements of the Temple Terrace, at least as it fronts the great Plaza, are exposed in their original integrity, and thus can be understood in their full functional and perceptual dimension. The organization of space is unitary over a large area (some 90 meters from east to west), the components can all be understood by virtue of their functional correlation, and the structural changes, minimal to begin with, do not affect the “deep structure” of the complex. This I have called the “topological factor.”²

In reflecting on this special dimension of “structural coherence” my thought went spontaneously to the many excavations of Antoine Suleiman that we had the good fortune of visiting in his company. He has unfailingly succeeded in wringing out of the ground architectural wholes that emerged with a splendid structural unity. This coherence would become all the more apparent as he would lead us through the excavations, explaining the depositional processes that lay behind the buildings as excavated, the functional purposes of the spaces he had articulated, the links between the objects and their contexts. A sheer pleasure! It is in this spirit that, learning from him, I would like to bring out the coherence of the wonderful Urkesh Temple Terrace, as we see it especially in the light of a new understanding that resulted from our

¹ I have developed the theme of the *longue durée* of the Temple Terrace in “Persistence of Tradition at Urkesh: The Temple Terrace from Protoliterate to Mittani,” to appear in a memorial volume for P. E. Pecorella edited by R. Pierobon.

² *Op. cit.*, 1.6.

2009 excavations.³ This pertains in particular to the shape of the temenos as it was conditioned, in its long history, by the floodwaters of which we see evidence already in the early part of the third millennium..

1.2 The built environment

In our effort to understand the full architectural impact of the structures that we bring back to light in a piecemeal fashion, through excavations that extend over long periods time, it is important to look at the individual architectural elements of the urban landscape in their larger setting, that of the built environment. This can be defined as the complex of spaces and volumes created by, and lived in, by a human community. It is an organic cluster that implies both contemporaneity of use and some unifying perceptual point of view.

It is in this respect as well that the structural coherence of the Urkesh Temple Terrace is particularly significant. For it affords us the possibility of looking at the clustering of individual elements, over a large area and in a situation of contemporaneity, in the light of their close functional and structural correlations. In this case, “built environment” means the open spaces of the Plaza, from its southernmost end to the escarpment and the revetment wall, of the monumental staircase, and of the up-slope of the glacis, leading to the Temple at the top. It also means the boundaries, physical and ideological, that define the Plaza.

The Plaza is indeed a void that is not empty: it remained unsullied throughout the centuries because the void was actually filled with meaning, and was bounded on the four sides, even though, at this moment, the nature of this boundary is clear only at its northern end, where the revetment wall and the staircase are found. To the south we have the partial exposure of a wall that appears to mark the limit overlooking the plain and presumably included a gateway to the Temple area from some other monumental access at the outer edge of the ancient city. To the east and to the west is where the 2009 excavations have given us a clearer insight into the nature of this boundary, at least in its northern end. As we will see in detail below, to the northwest we have indications of the closure of the Plaza with a high ground, from which floodwaters were threatening the base of the Terrace even in Late Chalcolithic times. To the northeast, we have a clear definition of the corner of the temenos, and also the beginning of a demarcation boundary between the Plaza and the service area to the east.

1.3 The ancient floodwaters

Two facts are remarkable about the evidence for ancient flooding evinced by the 2009 excavations. First, the intensity was such as to require very substantial protective measures. Second, by ED II times (or early ED III at the most), the origin of the

³The preliminary report, by Giorgio Buccellati, Marilyn Kelly-Buccellati and Federico Buccellati is in press and due to appear in the *Chronique archéologique en Syrie*.

floodwaters was from a high ground to the north of the Terrace summit – which indicates that the settlement had reached a high elevation already before the ED II period.

This evidence is particularly clear in the west. Here, a massive system of protection was set in place. First, a monumental stone escarpment (in J5), and then, on top of it, a second clay escarpment that covered the lower half of the revetment wall (in J5 and J1). We have clear signs of the disastrous effects of the flooding that necessitated these protective measures.

There are some indications that the same situation may have occurred as well in the east (J2 and J6), though here the evidence is for now more problematic.

The two facts taken together (the high elevation of the settlement in early times and the intensity of the flooding) have significant implications for the history of the settlement, and they stand out as the major single discovery of the 2009 season.

2 The structural configuration

We may try to visualize the components of the Temple Terrace as it would have been seen from the central Plaza. Given the vastness of this particular example of built environment, we have to connect the lines across unexcavated areas. In this we are helped by the remarkable state of preservation of the large Temple Complex, a preservation which we owe to two main factors: first, the builders' initial concern for stability, and second the persistent sacrality of the space that entailed an unusual care for this vast open space. Perceptually,⁴ the overall situation of the entire Monumental Complex may be reconstructed, with the help of some images (see especially Figs. 3 and 4), on the basis of the following considerations.

2.1 The western side of the Palace fronting the Plaza

The first pertains to the relationship between the Palace on the one hand and the Plaza and the Temple Terrace on the other. The elevation of the courtyard in the formal wing of the Palace (8500⁵) is the same as that of the Plaza in J1 and slightly lower than the one of the Plaza in J2. From such a correlation and from the limited exposure we have obtained so far in A19, it seems likely that the Palace fronted directly the Plaza along the full width of the eastern side of the Palace. The length of this perimetral wall of the Palace as shown in Fig. 4, and its alignment in a single straight line, are conjectural, but if anything they reflect a conservative estimate, which is based (1) on the number of rooms to be assumed, respectively, east and north of the two courtyards of the Palace, and (2) on a red brick fall in A19 which seems congruent, in terms of consistency and elevation, with the Palace bricks and the similar brick fall in A16..

⁴ See G. Buccellati, "The Urkesh Temple Terrace: Function and Perception," in Jörg Becker, Ralph Hempelmann and Ellen Rehm (eds.), *Kulturlandschaft Syrien: Zentrum und Peripherie. Festschrift für Jan-Waalke Meyer*. Münster: Ugarit-Verlag, pp. 87-121.

⁵ Elevations are all in centimeters, so 8500 means 85.00 meters. In turn, all elevations presuppose a figure 4 in front, so that 8500 means 485.00 meters (above sea level).

In this reconstruction, the Plaza was flanked to the west by the Royal Palace (in the Akkadian period), which would have presented a single wall face for the full length of the Plaza. Assuming a single storey building, and an approximate height of 3 meters or more, the roof line of the Palace would have been more or less level with the base of the stone escarpment that lined the base of the revetment wall to the northwest of the Plaza. In other words, there would have been a rise in the Plaza level from 8500 to 8800 and more at the base of the revetment wall, a rise that was negotiated by the escarpment.

2.2 The northwest closure

The northwest closure is defined as such by two factors. The first is the narrowing of the open space resulting in a projected distance of some 30 meters between the angle of the palace and the rounded edge of the revetment wall. In other words, the wide open space represented by the Plaza did not continue to the northwest.

The second factor is more conjectural. Though not yet excavated, it appears that the ground may have been higher further to the northwest, in which case the Plaza would have ended not only in function of the stricture between Palace and revetment wall, but also in function of the higher elevation of the open space at the base of the Terrace. Such difference in elevation is suggested by two considerations.

First, there is a general rise in elevation at this point in the mound as we see it in its modern configuration. Given the close correlation that we see elsewhere in this general area between ancient settlement patterns and modern contour lines, it is possible to read this difference in elevation as reflecting an ancient situation.⁶

Second, there is evidence of substantial flooding, in great volume and at a high velocity, from the northwest towards the Plaza, which suggests the existence of a high ground by at least the early part of the third millennium. This evidence is two-fold. In the first place, the Late Chalcolithic wall in J1 was severely damaged in a way that can best be attributed to a massive down rush of water from just that direction. And then there are substantial containment structures aimed at deflecting the water and channel it away from the revetment wall and towards the center of the Plaza: a stone escarpment and two successive clay escarpments on top of it (see below, 3.1, for the chronological question).

2.3 The eastern rim

To the east, the Plaza seems to have been bordered not by a single building (as with the Palace to the west in Akkadian times), but by a slope that led to higher ground, a slope resulting from earlier accumulations. This assumption rests on more tenuous evidence than what I have adduced for the west.

⁶ A pertinent fact is that the ED III grave found by chance just below the surface north of the Palace area (F2) is at a higher elevation (8631) than the Palace of Tupkish. Further to the north of F2, the storage room of the building in F1 (possibly a northern Palace?) is at the same approximate elevation as the formal wing of the Tupkish Palace, see L. Milano, *Mozan 2. The Epigraphic Finds of the Sixth Season. Syr-Mesopotamian Studies* 5/1, 1991, Fig. 3.

Three facts pertaining to the revetment wall are clear, a result of the 2009 excavations. First, it is high founded, and the escarpment in front of it is much higher than in the west. Second, it is not aligned with the revetment wall to the west of the staircase, but is rather set back (north) by several meters. Third, it makes a pointed turn to the north with a sharply acute angle.⁷ All of this suggests a different organization of the space than in the west, one that affects the perception of the revetment wall in two ways.

First, the relationship to the Plaza (Fig. 4). In effect, the Plaza ends with the staircase, and the wall flanking the staircase, through its very asymmetry, highlights this perception. To the east (i.e., to the right as one faces the staircase) the precinct wall is set back and founded higher. From the frontality it has when one stands in the center of the Plaza, it has receded to a minor element of a frame that is obscured by the monumentality of the staircase.

Second, the height of the eastern portion of precinct wall may have been very limited. From within the enclosed area, i. e., from the glacis, it might have looked like a low boundary wall (just as with the modern pens to be described below, 2.5), and it is in this fashion that we have reconstructed it in Fig. 3. If it was higher, it would have been a free-standing enclosure wall, which would not have been perceived, looking at it from the east, as a revetment wall framing a higher ground. For ground level on the east would have been about the same as ground level on the west. This is indicated by our excavations in B4 (to the east of the Temple) and by the heavy dump in area C2, which contained a large number of ED III seal impressions, likely to have come from the service quarters of the Temple that would have flanked, as I am assuming, the upper part of the Terrace.

It must also be said that we see no evidence of any containment effort for water rushing down from higher ground. The inference we can draw is that the entire eastern side of the Plaza was generally at a higher elevation, and that water flowed primarily away from the Plaza, to the east, towards the inner city wall (area KW) and a presumed gate.

In this reconstruction, the eastern rim of the Plaza would have been a relatively sharp upper slope, as if an escarpment that did not lean against a wall but rather rose to meet the higher ground (this being at the same elevation as the glacis in the west).

2.4 Centrality and asymmetry

The visual confrontation with the Temple Terrace, as one approached it from the south, would have been conditioned by the great façade of the Terrace. The pronounced asymmetry of the structural elements would have been emphasized by the overall configuration of the built environment in its totality. Not only was the mo-

⁷ I had originally interpreted the oblique line in west, exposed in B6, as the edge of an eastern apron, specular to the main apron in the west. The 2006 excavations in J4 had already indicated that there was no such an eastern apron. The 2009 excavations in J6 have now shown that the oblique line is instead part of the precinct wall, making a sharp acute angle and continuing west with the precinct wall until it reaches the staircase.

numental staircase off to a corner of the revetment wall; not only was its axis oblique with respect to the line of the same wall; the two sides of the Plaza would also have had a very distinct appearance. The west would have presumably been unencumbered in the fourth and early third millennium; neatly framed by the Tupkish Palace in the late third; and then less distinctly bordered by subsequent structures which never grew to a level much higher than that of the Plaza. The east, on the other hand, the rim would have had a high profile from the beginning, possibly more in the nature of built-up accumulations than of a single monumental building (like the Tupkish Palace).

The obliqueness of the staircase is curious because it is not aligned with the entrance of the Temple, but is rather directed to the East. Such a dis-axiality of the spatial organization would of course have emphasized the asymmetrical perception that is already inscribed in the overall configuration of the Temple Terrace. Functionally, it may have resulted from the presence of a midway station along the eastern rim of the temenos, towards which the staircase would have aimed – a situation that is topologically similar to what we see in Chuera (with Steinbau II hugging the western side wall halfway up between Steinbau III and Stainbau I).

We have a tenuous indication that access to the staircase may have been from the southeast, along the eastern rim: it is simply the fact that the modern contour lines show a longitudinal depression going from the southeastern corner of the Plaza to the south. What is today a simple water course, may hide an ancient access route to the Plaza from the lower plain. If so, public access would have been not in the center, but along the edge.

Similarly, in a specular fashion, access from the *ābi* would have been from the southwest, and access from the Tupkish Palace would have been either from the same direction, or from a gate placed in the western perimeter of the building. If so, the revetment wall would have acquired a centrality of its own – not in function of an access route crossing the Plaza along the central axis, but rather because of the frame created by the Palace to the west and the rim to the east.

2.5 The northern template

We may suggest a mental template that may have been operative in shaping the structural articulation of the Urkesh Temple Terrace. In the highlands of the Tur-Abdin, to the immediate north of Mozan in what is now Turkey, there are elements of the natural and of the built environment that are reminiscent of the situation as we see it in the monumental remains of ancient Urkesh. Three features in particular seem apposite.

The first is the fluid alignment and pronounced asymmetry of the revetment wall. The parallel for this aspect are the penned in areas, such as the ones shown in Fig. 5. They are precincts that serve to keep animals either in (sheepfolds) or out (gardens). Occasionally, a smaller precinct is contained within a larger one: in the same Fig. 5, a tomb, shaded by a tree, is protected by a small enclosure wall from the animals that are otherwise allowed to roam over the fairly wide area of the larger pen.

The second is the curious triangular pattern that one notices on the wall face of both the modern pens in the highlands and the Urkesh Temple Terrace. I have suggested⁸ that this pattern as present in the Urkesh revetment wall may be related to the notional icon for mountain that is found in Mesopotamian writing and iconography. An additional parallel may be suggested in relationship to the pen enclosures, in which case the explanation is more practical than ideological. The stones (as in the example shown in Fig. 6) are not laid in rows superimposed one on the other, nor are they set in mortar. Rather, they are piled up as one would a heap, wider at the base and progressively narrower as one adds more stones. As one pile is placed next to the other, the in between spaces are then filled in with more stones. This allows for very long “walls” to be set in place with relative ease and without much planning, in an agglutinative fashion.

The third is the uneven spatial organization of the cusp – by which term I mean the top portion of the Terrace, with a glacis sloping up towards the summit where the Temple is. The Temple is not isolated as if at the top of a cone shaped, free-standing rise. There are service quarters to the north and to the east, at the same elevation as the Temple itself (units B3 and B5). The visual effect is as one would have it on a normal stage: unidirectional. It is, I suggest, an echo of the view one gains as one approaches the northern mountains from the south. They present as if a façade (Fig. 7). What we see here is a significant difference from the perceptual impact of a southern ziggurat. There, the vast flat and open space of the countryside serves as the setting within which an omni-directional perspective emerges: from any point in the hinterland of the city one sees the top of the ziggurat, as the spoke of a radial visual field. In Urkesh, instead, there is a single perspective, with a well defined backdrop, which mirrors the farther backdrop of the highlands themselves. Where Kumarbi used to walk...

3 A bi-millennial continuity

We have reasons to propose that the coherence of the structural configuration I have suggested for the mid third millennium did in fact extend, as to its substance, over the full span of the history of Urkesh. There is a modicum of change, but it would seem that the basic structural configuration, and thus presumably the underlying cultic organization, remained essentially constant over more than two millennia.

3.1 The fourth millennium

At first we interpreted the LC3 ceramics and sealings, found just below the surface of the third millennium glacis, as belonging to an accidental fill brought in from somewhere else on the site. But the repeated appearance of the same type of ceram-

⁸ “An Architectural ‘Logogram’ at Urkesh?” in P. Negri Scafa and S. Viaggio (eds.), *Dallo Stirone al Tigri. Dal Tevere all’Eufrate. Studi in onore di Claudio Saporetti*. Roma: Aracne, 2009, pp. 23-29.

ics in a variety of other contexts suggested (already in 2008) that in fact there was a high LC3 mound immediately below the one of the third millennium.⁹

In 2009 we could also show that ceramics of the same type, without any later material, was associated with two walls in J1,¹⁰ closely related, typologically, with the third millennium revetment wall. This implies that the Temple Terrace was already in place, at this time, with a very similar configuration of the sacral space.

Another feature that appeared as a result of the 2009 excavations may also be considered, tentatively at least, as belonging to the same architectural configuration, namely the stone escarpment (Fig .2, 8-10). It lies at the base of the third millennium revetment wall, and it was overlaid by EDIII material, to which period we did originally assign it. But a case may tentatively be made for an earlier date, on two counts.

First, the alignment of the stone escarpment is different from that of the revetment wall: while the latter curves in a north-south direction, the former has a clear segmental definition that leaves about half a meter of open space between it and the base of the wall (see especially Figs. 9-10). Were it the case that the two (wall and escarpment) had been built at the same time, this gap is hard to explain: the purpose of the escarpment being, admittedly, to deflect the water from the base of the wall, this gap would have instead allowed water to seep through under the base of the wall, in such a way that it would soon severely undercut it.

Second, the escarpment reaches exactly to where the LC3 wall is in J1: the north-south wall would certainly have been higher than we see it today, and thus the escarpment would have led the water against its western face, where the wall would have acted as a dike deflecting the water away from the central Plaza (Fig.11). In this case, when the third millennium revetment wall was built, the stone escarpment would have been retained, to be covered with the clay escarpment we have found.

This hypothesis can easily be tested, as we will in future excavations, by removing the thick Mittani accumulations in front of it, and then probing the levels immediately below the stone escarpment. Should the stone escarpment indeed belong to the LC3 phase, we would have one more piece of evidence for an unprecedented monumental structure already at that very early date. The stone escarpment is about 14 meters above virgin soil, which would presumably have been the level from which the Terrace rose. And, judging from the LC3 finds immediately below the glacis, the summit would have reached an elevation not dissimilar from the one of the third millennium, some 24 meters above plain level.

⁹ See G. Buccellati and M. Kelly-Buccellati, "Urkesh and the Question of the Hurrian Homeland," *Bulletin of the Georgian National Academy of Sciences* 175/2, 2007, pp. 141-151. Further analysis of the ceramics from the glacis in J3 by M. Kelly-Buccellati, showed that the extent of exclusively LC3 material immediately below the later glacis is pervasive, "Mozan/Urkesh in the Late Chalcolithic Period," in in Jörg Becker, Ralph Hempelmann and Ellen Rehm (eds.), *Kulturlandschaft Syrie: Zentrum und Peripherie. Festschrift für Jan-Waalke Meyer*. Münster: Ugarit-Verlag, pp. 261-290..

¹⁰ G. Buccellati, M. Kelly-Buccellati and F. A. Buccellati, "Preliminary Report on the 22th Season of Excavations at Tell Mozan-Urkesh (July-October 2009)," in press for the *Chronique archéologique en Syrie*.

Regardless, the spatial configuration of the overall complex shows strong similarities between the mid fourth and the mid third millennia. The corner formed by the two walls in J1 marks the eastern boundary of the Plaza in a way that anticipates what the Tupkish Palace does in the late third millennium.

A most surprising aspect of this situation is that the defense against water flowing from the northwest implies the existence of a high ground north of the Temple already in the fourth millennium. In other words, the Temple Terrace was not free-standing, but leaned against a mound that had already reached practically the same elevation as the Temple itself.

3.2 The last century

The excavations of the last few seasons have radically changed our understanding of the situation in Mittani times. For our current purposes, we should recall three points in particular. First, the eastern portion of the Temple complex was abandoned, resulting in the abandonment of the monumental staircase and, in fact, in the erasure of its access function. Second, the focal access was shifted from the east to the west, with the construction of a new and smaller, if still functionally monumental, staircase in the west. Third, the Plaza, which had become a basin, was quickly filled in and reached the top of the revetment wall.

From these developments we can draw two conclusions that are pertinent for the theme we are pursuing.

The first pertains to the aspect of structural continuity. The disassembling of the staircase *qua* staircase removed the access function (which was moved to the west), but not what we may call the “display” function. What I called the “apron” was cut in half (longitudinally) because of the loss of its lower portion as a result of the filling in of the Plaza. This loss was made up by the construction of what I had called the “secondary apron.” I suggest, now, that this is instead a widening of the top half of the original apron to maintain, topologically,¹¹ the same carrying capacity, so to speak, of the structure. I am assuming, here, that the function of the “apron” was indeed to serve as a seating platform for some event that was taking place at its base, as if a *cavea*. If so, the eastern portion of the Temple complex served a dual function from the mid third millennium until Mittani times: for access and for display. By mid Mittani times, the disassembling of the staircase disassociated the two functions: while access was moved to the west, display was retained in the east. Thus the eastern staircase was partly dismantled, in a way that would serve seating more than walking, and the original *cavea* (the “primary apron”) was widened, in such a way that both “aprons” could retain the original display function, in the eastern portion of the Temple complex.

The second conclusion pertains to the question of water regulation. The filling in of the Plaza brought its floor to a level high enough to remove the danger of a massive water flow from higher ground. Thus it is that in the reorganization in the last

¹¹ See my article for the Meyer Festschrift cited above, n.4.

century we see no more attempts at deflecting the force of water channels streaming down from the northwestern portion of the Temple complex, the reason being that the water could not develop the same mass and velocity as in earlier years.

3.3 A modern aftermath

Our reconstruction of the ancient Temple complex has been helped by the evidence of the damage wrought by ancient flooding, and of the measures taken to stem its violence. A closer look at modern climatic conditions will help us to visualize concretely what the ancients were confronting in their own time. For the floodwaters of Mozan are the same as the floodwaters of Urkesh.

In an effort to protect the excavated areas from the winter rains, I have taken, over the years, a number of measures. The most distinctive has been the system of localized shelters that protect the individual walls, especially the mudbrick component. We have also set up a number of barriers and of channels that deflect the water away from the excavations. As part of an intensive monitoring program of the shelter system, we have collected a precise daily record of temperature and humidity going back to 2001, and we have also obtained an extensive photographic record of climatic conditions throughout the year.

The 2009-10 winter witnessed the most damaging episode in recent memory, when the floodwaters broke some of our defenses in the Temple area, so that in just about an hour in March 2010 some 1.5 meters of water collected in the deeper sectors of the excavations, J1 and J2. By the end, both areas looked like small lakes (Figs.12-13). Fortunately, the defenses we had set up for the Palace walls held, so that no damage was recorded, with only one exception in a particularly vulnerable area of the Palace. But the evidence of the water level against the sections is particularly telling.

In both instances, the water collected through a down rush from the higher ground of the Temple Terrace, and was trapped by the sides of our own excavations. In Urkesh times, the water would have run its course down to the plain, but with the same intensity and velocity that Mozan witnessed in March of 2010. As if peering through time, our winter photographs tell a visual tale that was already suggested by archaeological inference, a modern aftermath to a long past history of recurrent flooding and of the measures taken to protect at its base, against the ravages of the winter storms, the divine mountain.

4 Captions for figures

4.1 Direct overhead view of Palace and Temple Complex

(Kite photographs by Federico A. Buccellati)

4.2 Oblique overhead of Temple Complex

(Kite photographs by Federico A. Buccellati)

4.3 Reconstruction of Temple Complex

(Drawing by Sabrina Drosz and Geveen al-Hassan, concept by G. Buccellati)

4.4 Reconstruction of Plaza facing the Temple Complex

(Drawing by Geveen al-Hassan, concept by G. Buccellati)

4.5 Animal pen with small grave precinct

(Photo by G. Buccellati)

4.6 Detail of construction of an animal pen enclosure wall

(Photo by G. Buccellati)

4.7 View of mountain top with step-like outcrops in front

(Photo by G. Buccellati)

4.8 Direct overhead of western closure

(Photo by Federico A. Buccellati)

4.9 Oblique overhead of stone escarpment and revetment wall

(Photo by Federico A. Buccellati)

4.10 Direct overhead of stone escarpment and revetment wall

(Photo by Federico A. Buccellati)

4.11 LC3 walls

(Photo by Diadin Mustapha)

4.12 LC3 walls area after the big March 2010 storm

(Photo by Diadin Mustapha)

4.13 The staircase area after the big March 2010 storm

(Photo by Diadin Mustapha)

























