The Massif Rouge and Early Dynastic high terraces: Dynamics of monumentality in Mesopotamia during the 3rd millennium BCE

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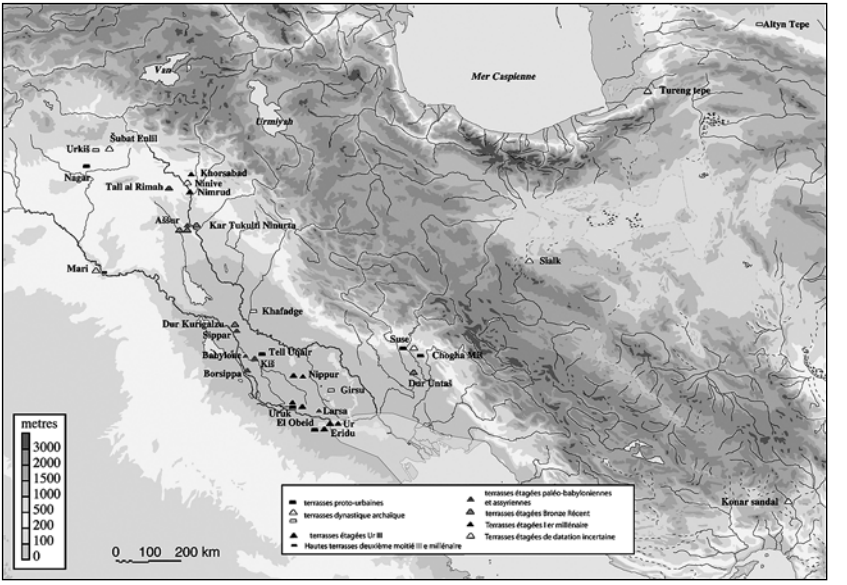
High terraces and ziqqurats have always fascinated Near Eastern archaeologists, not least because of the Babel tale. It is precisely because of its gigantic proportions that the Tower of Babel became a problem and an expression of a kind of human *hybris* against the gods (Parrot 1949). More than 27 of this kind of monument have been excavated in the Near East (Figure 1) and it is usually thought that the development of the classical Mesopotamian ziqqurats from the Ur-III period on was preceded by a long period in which high terraces played a similar role, especially in proto-urban settlements (Butterlin 2013) and thereafter during the so-called Early Dynastic period (2900–2300 BCE). Many studies have been devoted to these buildings and they are usually compared to other gigantic monuments, for instance pyramids or massive towers all over the world (Quenet 2016: 49, Figure 4).

Conceived as mega-buildings from the start, such terraces dominated the Mesopotamian cities with their mass and their height. It is interesting to figure out more precisely what this meant, first through the actual dimensions of the monuments and secondly through their insertion in the cities. The size of the monuments under consideration has always been a challenge for archaeologists: excavating a ziqqurat is a painful and difficult task, requiring an enormous amount of work and involving huge problems. Badly exposed to erosion, the later levels are usually difficult to understand and in rare instances has it been possible to cut deeply into the masonry to uncover the earlier levels, which are sometimes well preserved. A second challenge is to understand the environment of buildings which during the later phases of the history of Mesopotamia stood isolated in a walled *temenos*. For earlier phases, either we know nothing of what was happening around the monument or it appears that they were set up in a dense and compact urban environment, so that it is necessary to be very careful when assessing how far the monuments were visible from a distance, crowning the Mesopotamian city skyline.

From the start this has been our aim in excavating the monumental center in Mari and especially the so-called 'Massif Rouge', between 2006 and 2010. Here we present briefly the results of our excavations at the Massif Rouge, thereafter comparing it with other monumental buildings of the time, both in the general layout of the building and its urban setting.

Figure 1: Distribution map of known ziqqurats and high terraces (author's map)



Back to the Massif Rouge

We have presented elsewhere the results of the Massif Rouge excavation projects (Butterlin 2014; 2015b; 2016b). Here we just concentrate upon the question of scale and the way we have figured out the main layout of this very peculiar monument. This building was first identified by Parrot and recognized thanks to its red core already during the first campaign in Mari. Before World War II, Parrot identified a very peculiar concentration of religious buildings on more than 10.000 m². Among these buildings, he identified the so-called 'Lion Temple', and to the north a first terrace which he named 'ziqqurat' and is now just named the 'High Terrace'. West of the 'Lion Temple', he excavated the so-called 'esplanade', which he thought to be limited by a *temenos*, and to the north a beautiful recessed façade, which appeared later to be the southern façade of the Massif Rouge.

The monument itself was only excavated during the seventh and the eighth campaigns in 1952 and 1953, and never published apart from preliminary reports

(Parrot 1953; 1954). Parrot identified a two-level recessed façade to the west. To the north, he excavated three rooms which were directly connected to the Massif itself, with one altar. To the east, he encountered a complicated situation: the Massif was heavily eroded and he discovered a monumental façade made up of roughly cut gypsum blocks. The whole eastern façade was cleared and presented this kind of wall, rendering understanding of the building quite difficult. Parrot thought initially that the building could have been a massive grave and decided to proceed towards the south where he was quickly completely absorbed by the discovery of the Inanna-Zaza temple (Parrot 1967).

Until 1999, no excavation occurred at this spot of the tell. The southern façade was briefly studied by Dominique Beyer during his excavations at Chantier G.[1] To the south of the Massif he identified a massive brick wall which was clearly linked to the inner structure of the Massif with a heavily burnt wash. This meant that the whole structure of the Massif was composite and that, as in the north, it included a lot of satellite buildings. We decided to resume in full the excavations upon that mysterious monument which was still standing as a huge mass on the top of the tell just beside the 'High Terrace'. The 'High Terrace' itself had been studied by Parrot and thereafter by Margueron (2004) but the Massif Rouge had remained untouched and unpublished (Figure 2).

Figure 2: Mari, Massif Rouge in 2005, before resuming excavation, mission archéologique française de Mari (Photo by Pascal Butterlin)

1 Beyer 2014 for the preliminary results of excavations at Chantier G from 1990 to 2010.

It quickly became apparent that the Massif itself was still there – exactly as it was during the last days of Parrot's excavations. Using unpublished data from the Parrot archives, we could easily resume the study of the building. The excavations proceeded in a threefold fashion. First, the four façades of the terrace were cleaned and precisely studied. Next, the top of the terrace was excavated in order to record the extent of the red mud-brick structure and see if some details could be recorded about the layout of the core of the terrace. And thirdly, we made some soundings to understand the relationship between the building and its environment.

The full results of the excavation are not presented here. Our main conclusions were the following. As stated, Parrot had recognized two phases. The study of the monuments established that there existed at least five phases, three assigned to *ville II* (2500–2300 BCE) and two to the *ville III* of Mari (2250–1759 BCE). In its initial stage (phase 1), the Massif Rouge was a stepped terrace, made up of red semi-baked bricks; the façade was red washed with white plastering for the first level floor (Figure 3). It is impossible to know the original height of the second level of the building, which was still 1 m high. The first step had a façade of at least 5 m and presented niches and recesses with a general slope of 75°.

Figure 3: Mari, Massif Rouge, northern façade, double-recessed, red-washed façade, mission archéologique française de Mari (Photo by Pascal Butterlin)

It is still difficult to figure out the complete plan of this first terrace which is hidden by later development, but a general estimation for the ground level suggests a surface of up to 800 m² and for the second level of around 400 m². No trace of an upper

Figure 4: Mari, Massif Rouge, northeastern angle gypsum blocks massive, mission archéologique française de Mari (Photo by Pascal Butterlin)

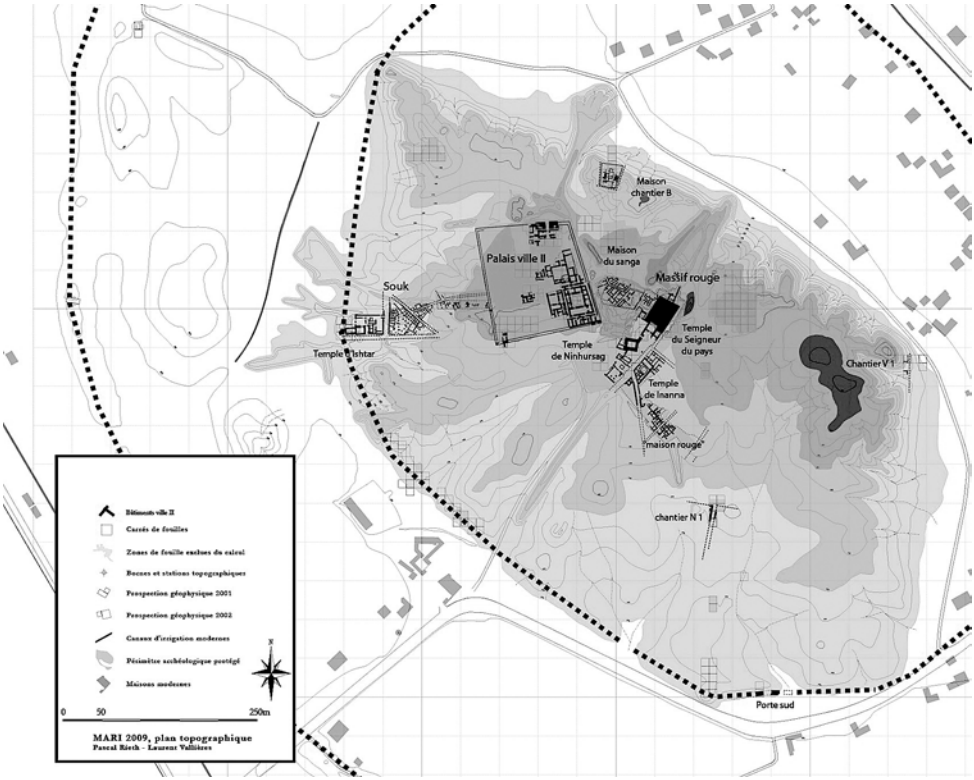
building has been observed but that clearly does not mean that one did not exist. Looking through the dimensions of other high temples of this type may reveal such a temple. During the excavations of the Great Trench, Parrot discovered a foundation deposit typical of the early second city and this first stage of the massif is dated to the beginning of the *ville II*, that is around 2500 BCE (Butterlin/Gallet 2016).

This monument was enlarged twice during the history of the *ville II* as it was established in a trench in the northern part of the Massif itself. The last enlargement probably occurred after major destruction, and the Massif was enlarged towards the north and the east, acquiring its typical trapezoidal shape at this time. Its dimensions were then as follows: eastern façade: 40.7 m, western façade: 36.7 m, southern façade: 28.1 m, and northern façade: 28.1 m with an estimated surface area of 1232 m².

The massive gypsum blocks of masonry were erected at this time and it appears after our excavations that this operation did not just create a protecting wall but in fact involved the building of a massive terrace of gypsum stones, up to 2 m long and 4 m high (Figure 4). This huge construction was not visible: at the southwestern corner where Parrot had not excavated, we found that the stone walling was covered by a heavy red wash of earth, 10 cm deep. It covered the upper part of the masonry, while the lower part was in foundations, under the level of the so-called *voie sacrée* which runs along the eastern façade of the building. At this stage, the Massif occupied a surface of more than 1200 m². This monument, like the rest of the city, suffered major damage at the fall of the *ville II* and was exposed for a long time to erosion which cut especially deeply into the eastern part of the monument, damaging even the structure of the first stage of the monument which therefore cannot be safely reconstructed in its entirety.

After the sack of the city, the monument remained abandoned until the reign of Apil Kin, ca. 2100 BCE. This Shakkanakku of Mari is well known since his reign constitutes one of the links between the U kings, namely Ur-Nammu, and the Mari Kings. Interestingly, he decided to rebuild the monument and at the southwestern corner of the building we discovered a foundation deposit well known in Mari, indicating that Apil Kin rebuilt the *sahuru* monument. Besides its chronological interest, this discovery gives us the name of the monument itself, a much-debated term used much later to designate the temple on the Babylon Etemenanki ziqqurat. It appears that it was this Shakkanakku who packed the red buildings and their remains in a huge grey brick massif (Figure 5), so the old stepped terrace became a high terrace next to the High Terrace built during the 23rd century by the so-called *shakkanakkû restaurateurs*, especially Ishtup El and successors (Butterlin 2007a). The building therefore offers an interesting case study: it is the only case where a stepped terrace is replaced by a high terrace precisely at a time when the Ur-III kings identify the classical layout of the ziqqurats at Ur, Uruk, Eridu, and Nippur.

Figure 5: Mari, general plan of ville II, mission archéologique française de Mari (Plan by Pascal Butterlin)

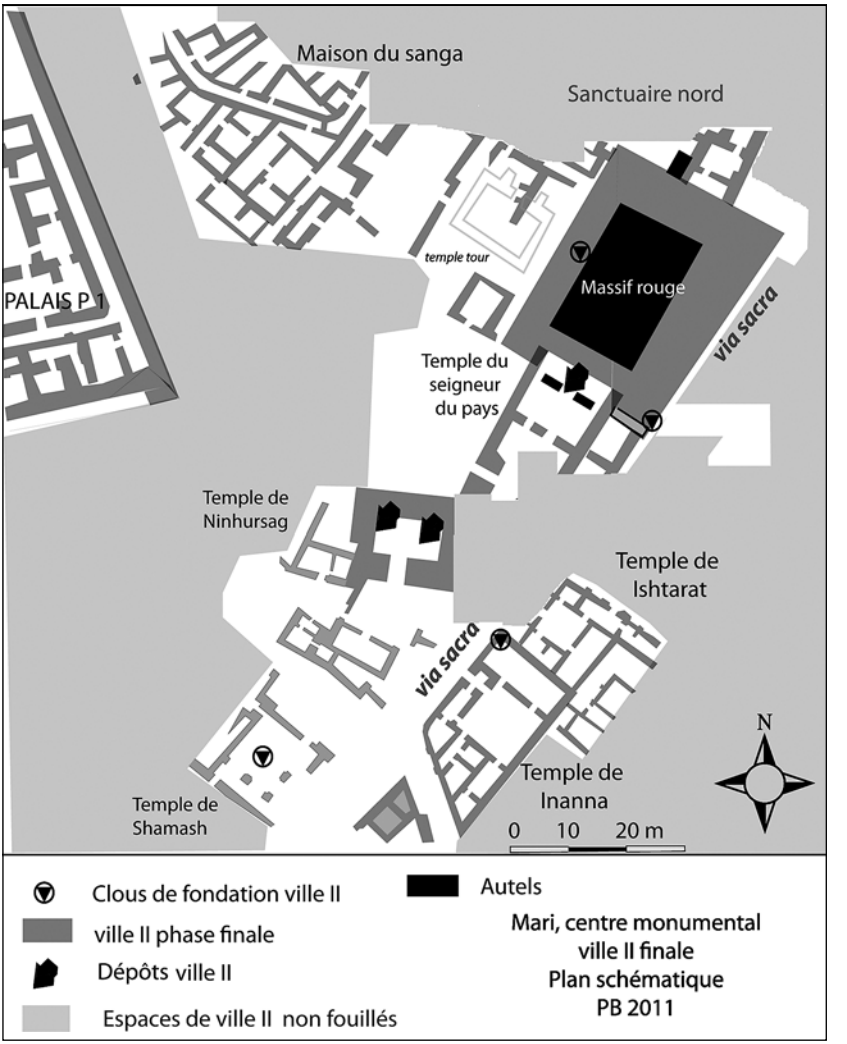


A second curious feature of the Massif Rouge is its urban setting (Figure 5). In contrast to the contemporary monuments excavated in southern Mesopotamia, the Massif Rouge is not isolated in an oval compound. It was structurally linked to the north and the south to two temples (Figure 6). We have already mentioned the northern altar which was part of a huge building situated to the north. To the south, our excavations showed that the Massif was linked to another building identified as the temple of the lord of the land (Figure 7). This multilayered building had a very complex history. Its *cella* was partly embedded in the Massif itself. It was square during the first phase of the massif and was later reduced. To the east, as previously stated, is the *voie sacrée* and to the west we discovered the remains of a sacred alley made up of white plaster which ran along the façade towards the northern building.

The southern temple was clearly the lower temple of a complex combining lower temple and terrace, as was later the case in Assyria for example. This southern temple was destroyed at the fall of the city but later rebuilt by the Akkad kings.

It had been identified by Parrot as the 'Temple Anonymes'. But at that stage the terrace remained in ruins and, as far as we can determine, the temple had lost its link to the terrace.

Figure 6: Mari, general outline of the monumental center, mission archéologique française de Mari (Plan by Pascal Butterlin)



The Massif Rouge and the contemporary oval temples and high terraces of Early Dynastic Mesopotamia

It is interesting to compare the Massif Rouge complex as we know it now and other gigantic complexes of Early Dynastic Mesopotamia (Figure 8). Five main complexes have been identified: the Ninhursag sanctuary at Adab (Wilson 2012), the Eninnu of Ningirsu at Girsu (Parrot 1948; Forest 1999), the Ibgal of Inanna at Lagash (Crawford 1972; Hansen 1980–1983), the Ningirsu oval at Al 'Ubaid (Hall 1930; Hall/Woolley 1927), and the famous Oval temple at Khafadjah (Delougaz 1940). These buildings have been reviewed recently by Quenet and it is interesting to compare them to the Massif Rouge complex as it appeared around 2300 BCE just before its destruction (Quenet 2016: 143–147).

The Adab terrace was a composite building, with two adjoining terraces, one with the temple (21 by 20 m) and the other designed as a southern terrace (20 by 13,5 m), Quenet (2016: 143) estimates that its surface was more or less 700 m², because the limits to the north have not been defined for the second terrace. This layout could be the result of the enlargement of an initial square terrace. At Girsu, it is extremely difficult to assess the exact extent of the terrace supporting the famous Ur Nina construction. Forest (1999) proposed a reconstruction of a huge terrace up to 33,75 by 41,25 m, that is 1393 m². We have no information about a possible terrace at Lagash. The most well-known terraces are those of the Ninhursag temple at 'Ubaid/Nutur and of the oval at Khafadjah. The 'Ubaid terrace was 33 by 26 m, that is 858 m², and the oval temple terrace was 30 by 25 m, that is 750 m². One building complex is peculiar: the supposed oval precinct at Tell Mozan (Pfälzner 2008). With a surface of up to 2475 m², it is (as we will see below) another kind of high terrace. When we compare these results to our own findings at the Massif Rouge it is obvious from the start that the surface-areas of the Early Dynastic terraces were remarkably stable, around 800 m². We can consider this case as a typical standard for the high terraces of the time of the great city states of Sumer and Akkad. The Eninnu of Lagash is much bigger and can only be compared to stage 3 of the Massif Rouge. These two buildings could be considered as a new step in the general monumentalization of the high terraces, which probably occurred during the proto-imperial and imperial phases of the Akkad empire time.

We have little information about the general layout of these Early Dynastic terraces. At Adab and Girsu, we know that temples were erected upon what seem to be high terraces. At 'Ubaid, the temple has disappeared, but reconstructions have been produced using the material discovered at the bottom of the terrace. As for Khafadjah, the terrace is a high terrace and it has been proposed that a monocellular temple was on top of it. Considering the discoveries at the Massif Rouge, Quenet (2016: 150) has proposed recently that a second storey could be a possibility, but we have no definitive clue about the upper temple, as in Mari itself.

From this first set of observations we can conclude that the initial stage of the Massif Rouge was a typical terrace as built in Early Dynastic Mesopotamia during the middle of the 3rd millennium. But it is distinguished by its two storeys, a feature that at present seems to be specific to Mari. This is not to say that stepped terraces were invented in Mari; we have previous examples, at least partially, in 4th millennium Mesopotamia. This feature could have been specific to central Mesopotamia if Khafadgé also presented this kind of building.

Anyway, the Mari case is much more specific when discussing the general layout of the monumental center. Obviously, at Mari we cannot identify the typical high terrace with its oval as in 'Ubaid, Khafadjah, Lagash, or even Girsu. With its two adjoining northern and southern temples, the Massif Rouge complex is a very peculiar case and it could in some ways be compared to the Adab complex. At Adab, an enclosure wall existed but the terraces were closely linked to other buildings mainly to the north. The relationship is not clear and we may recall that a high temple was situated on the top. In Mari, the question remains unresolved, especially since we discovered the low temple which might have been the main sanctuary.

This quick review leaves a lot of questions about the general layout of these monumental centers. It is difficult to assess their global scale: 93 by 130 m at Lagash, 80 by 100 at Girsu, at 'Ubaid and 100 by 70 m at Khafadjah. This means that these monumental centers occupied roughly between 7000 m² and 12.000 m². At Mari, we estimate that the whole complex of the Massif Rouge occupied roughly 130 by 80 m, that is almost 10.000 m². This is only an estimate since the limits of the Massif remain uncertain. There is no *temenos* wall at that time in Mari and these figures do not include the palace with its *enceinte sacrée* (more than 24.000 m²). Included are, however, the terrace with its two temples as we know them and the Ninhursag temple to the south, but also the *dépendances de Dagan* and the recessed building identified by Parrot under the 'High Terrace'.

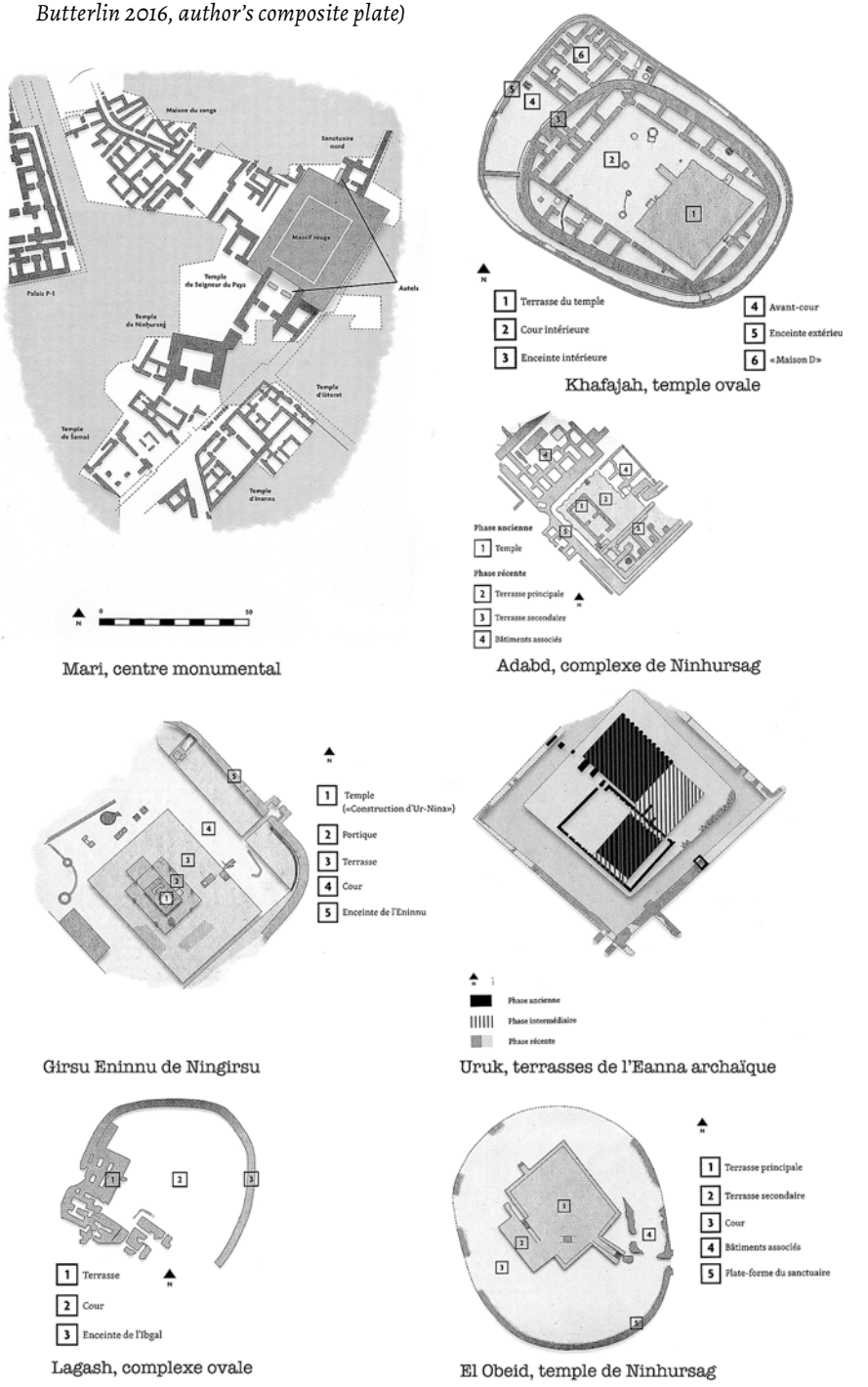
Anyway, we now have good insights into the layout and the scale achieved by this kind of monument around 2400 BCE. This is but one step along the history of these buildings. If we compare the figures we obtained for these terraces to the earlier and later monuments, we can gain an insight into the development of the monuments.

The Early Dynastic terraces are much smaller in size than the great proto-urban terraces from Susiana or Mesopotamia: 1500 m² is the average during the 4th millennium (Butterlin 2015a), with the exception of Susa (6400 m²) and only 800 m² during the Early Dynastic. In between these periods, we have little information. At Uruk, the first high terraces built in the Eanna, above the protopalatial complex at the beginning of the 3rd millennium, are interesting cases (Eichmann 2007). Two terraces whose surface is respectively 600 and 800 m² were built up and at a later stage were connected to each other, creating a L-shaped structure (Figure 7). This type of building could be the missing link between the two types of terraces.

Figure 7: Mari, general plan of the Massif Rouge excavations, mission archéologique française de Mari, l (Plan by Lorraine Sartorius)

With a surface up to 1.232 m², the last stage of the Massif Rouge constitutes a clear break and the next stage (up to 2.400 m²) was achieved during the Ur III period. The four ziqqurats built by the Ur III king are rectangular buildings, Ur (62,5 × 43 m, 2.687 m²), Uruk (56 × 52 m, 2.912 m²), Eridu (61 × 46 m, 2.806 m²), and

Figure 8: High terraces and oval temples, comparison at same scale (after Quenet 2016; Butterlin 2016, author's composite plate)



Nippur (53 × 38 m, 2.014 m²). The only comparable earlier terrace is the high terrace at Mozan, as we have seen previously.

I would suggest that these three steps constitute three different generations of terraces, defined by their scale but also by the number of storeys. Usually, the development of the multiple storey ziqqurats during the Ur-III period has been considered a major step. However, our observations in Mari show that while this might be the case for southern Mesopotamia it is not the case in central Mesopotamia, at least on the Middle Euphrates.

Conclusion

Were high terraces a question of scale? This short paper provides a preliminary answer to this question: there was definitely an idea of the scale to be achieved to create an urban landscape during the Early Dynastic period, shaped by those definite markers that were the high houses of the main god of the city. The high terraces were certainly landmarks, even if we still do not know precisely what happened on their tops. The standard size of this kind of terrace seems to have been 800 m², and the terraces were usually quadrilateral in shape, but they were not as standardized as the Ur-III ziqqurats became with their famous layout. As might be expected in the polycentric world of the cities of the middle of the 3rd millennium, every terrace was part of a local religious topography, whose roots are not easy to understand. Looking through the data, we observe different cases, even in the way the terraces were linked to the nearby temples and sacred precincts.

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