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Building Assyrian society: the case of the Tell Sabi Abyad Dunnu

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VIII. Conclusion

VIII.1 Answer to the research question

What does the nature of the built environment of the Dunnu, and changes therein, say about the relation between people and built environment, and the purpose and functioning of the complex?

If we trust the written sources, the *Dunnu* was a relatively short-lived settlement. Only 50 years passed between its probable foundation date by grand vizier and king of Hanigalbat, Aššur Idin, around 1230 BCE and its end during the reign of his son, Ilī Padâ, around 1180 BCE. This is the period during which we may assume that the *Dunnu* proper, functioned, i.e. the *Dunnu* with its high stature economic, political and administrative functions, in service of the grand vizier, and through him Aššur. As a settlement, it is likely that the *Dunnu* existed in some form before the advent of an administration, and also after. The latter is clear from the evidence, as building phases and human activity continues stratigraphically far beyond the main contexts with the buried writing tablets. Whether phases of architectural and other types of activity also extended in the other direction of time, is harder to tell. The evidence of a Mitanni phase, is difficult to assess with the few available pottery sherds, and the fuzzy boundaries between pottery traditions. The excavators have suggested that a single structure belonged to this phase, the predecessor building of the tower. However, if this building is not Mitanni in date, but Assyrian, it puts the early Assyrian presence in an interesting light, as it would indicate a much smaller early *Dunnu*. Conversely, if the early Mitanni phase extended beyond the tower, and also included the old phases of the fortifications, the real 'Assyrian' phase would only start after the large-scale renovations that moved the main fortifications. Considering the evidence, the latter is less likely, but it reveals some real problem with establishing the nature of the earliest settlement and its origins. However, that there was an early and a late version of the fortifications is a fact. One of the most significant modifications in the history of the *Dunnu* was the change of the location of the main gate, which modified the *Dunnu's* access structure and created a spatial division between east and west. Due to difficulties with stratigraphy, phases of building and demolition activity, the plan belonging to the old gate phase is far from clear. On the other hand, we have a reasonably well-preserved plan from the latest phase of the *Dunnu*, before it went into decline.

What the historical significance of this transition is, is debatable. As said, it could be that the old gate phase belonged to a Mitanni settlement, and the new gate phase reflects the transition to Assyrian power. On the other hand, the argument can be made that the division between old and new gate phase, reflects the transition of power from Aššur Idin to his son Ilī Padâ, with a brief "in-between-phase" when Shulmānu-Mušabši reigned for three years. This is what the archaeologists who excavated the *Dunnu* opted for

(Akkermans and Wiggermann, 2015). The statement "*when Ilī-padâ and his chariots returned to the fortresses*" found on one of the tablets dating to this power transition (T93-10), is used in support of this view. When Ilī-padâ returned, he started a building restoration campaign, sparking the renovation building activities at the *Dunnu*, it is assumed. We must however emphasize that this still remains a historical and archaeological hypothesis, rather than fact. As is common archaeological wisdom, one should be careful in projecting historical episodes on settlement construction history. Other factors, and other undocumented events, may have instigated renovation and modification. The detailed reassessment of architectural contexts executed as part of this dissertation, can also not conclusively answer the question.

However, other valuable insights were acquired. One thing that has become clear from the investigation of rebuilding activities, is that they correspond to a clear functional change of the affected area. Either the access structure was modified, or areas were repurposed, asking for different structural solutions. Such rebuilding events were preceded by controlled demolition, preserving some of the previous phase due to demolition debris deposition. It is important to emphasize that because of the localised nature if these construction events, and their clear functional cause, these events do not necessarily represent a renovation of dilapidated architecture, as is often suggested in the excavation reports. Other architecture, also with supposedly more "fragile" 1 or 1.5 brick walls, remained in place for the entire duration of the existence of the *Dunnu*.

This leads to the second insight with regards to architectural development of the *Dunnu*. If certain areas remained more or less the same, while others were modified, why is it justified to draw an arbitrary line between building level 6 and building level 5 for the entire settlement? Within buildings and open spaces, the succession of floors also does not always justify such a difference. The picture with regards to floors is varied, and in addition also suffers from some misinterpretations in the field. Multilayered single floor constructions, with a foundation layer and a top layer, were occasionally taken to be different floor levels, i.e. "building phases" for instance. In another example, the top of demolition debris fills, transitioning to levelling fills, often forming temporary surfaces, were sometimes interpreted to be floor levels. But also if we exclude such interpretative errors, there are areas that clearly have a single floor or a continuous stacking of floor levels, in outside areas due to sediment accumulation, all indicating continuous usage. There is no evidence for a phase of increased sedimentation, commonly associated with building dilapidation, in between the supposed levels 6 and 5. There is evidence for this process however, much later, at the transition between levels 5 and 4. Now it is clear that sedimentation rate rapidly increases, suggesting a phase of (partial) abandonment and a different cleaning and building repair regime.

If we cannot make out a clear division between building levels 6 and 5, does this mean construction occurred more organically, or haphazardly, responding to certain new needs and events? This is not necessarily the

case. The change from old gate to new gate, and all it does to the global access plan of the *Dunnu* still suggests some kind of single large event that allows us to talk about two significant phases: the old gate phase and the new gate phase. But to what extent was this modification contemporaneous with the other large modifications of the *Dunnu*? Very little can be stated with certainty as most building events occur in stratigraphically isolated areas. That means one construction event in one larger area cannot be securely linked to others in other areas. Some tentative suggestions can be made. For instance, the relocation of the main gate, may very well be contemporaneous with the modification of the access structure at the postern gate. They may be viewed as parts of a larger plan to change the organisation of access to the *Dunnu*. At the same time, the modifications in the area of the postern gate included the addition of a staircase, which may be tentatively linked to the removal of a similar staircase in the north-eastern corner. The removal of this staircase and its replacement by a bathroom reflects a larger functional change in this corner of the *Dunnu*. The large-scale modification of the northern side of the tower on the other hand cannot be linked in functional terms the same way. However, in this case it is stratigraphically plausible to assume this was an earlier renovation, closer to the construction of the old gate. As this renovation in turn is also linked to the construction of the residence, we must assume the existence of the residence before the new gate. This in turn causes a watershed of issues regarding the spatial functioning of the large courtyard, which appears to have been organised exactly with the new gate in mind. Hence, we must assume a different spatial organisation of activities, such as administration of incoming goods and livestock and the movement of associated people, that we can at the moment just not pinpoint precisely. Another option is to assume that the renovation of the tower occurred at the end of the use-phase of the old gate, and that this event was in fact contemporaneous with the other named construction events related to the construction of the new gate. In that case, the new gate and the residence are part of a single construction plan, which would make sense from the point of view of conceptual building type and architectural performance. This would however imply that the old gate phase was much more different than we previously thought, and that the plan of the *Dunnu* still holds some unexcavated secrets.

Regardless all these difficulties of architecture phasing, from a birds-eye perspective, it seems that the *Dunnu* was modified in a few larger constructional events that target a certain area of the *Dunnu* at once. There are even some indications that some of these larger interventions are related and contemporaneous, i.e. part of a single larger modification. Small-scale modifications to individual buildings on the other hand are very limited. In certain cases, some local reinforcements or blockings seem necessary to prevent waste spill and erosion caused by rainwater flows. Internal restructuring of buildings is very rare, and only occur in a single room of the residence (a doorway was blocked), and in the tower (the internal access plan was modified, and in two rooms with a divider wall the compartments were joined). However, the latter was probably part of a larger renovation event that targeted this entire building and should therefore not

considered “a small intervention”. Many small adjustments to the architecture (blocking of doorways, sectioning of spaces) appear to have been made after the main *Dunnu* phase ended. During this aftermath, some functional shifts, such as the relocation of pottery workshop inside the walled precinct, and the use of the residence as a barn (possibly), indicate that the original *Dunnu* did not function anymore. The repurposing went hand in hand with some localised modifications of the plan. A good argument can be made, that the *Dunnu* architecture had already started to collapse, as some spaces appear to have been left to fill with building debris before complete abandonment, as others appear to have been in use. This starts in level 5, on the same floors that were used during the *Dunnu* phase, and continues for decades while the main buildings of the *Dunnu* are left to degrade and collapse.

It seems therefore that the original *Dunnu* was an architectural complex designed and constructed by those in power. This is the case for its initial building, but also for most later modifications. As all architectural modifications have a significant effect on vital infrastructure such as the location of administration, the spatial organization of access behind the gateways, and access to the ramparts, these are more likely to have followed from top-down decisions and designs. Only afterwards, a new phase starts with more localised, haphazard and opportunistic modifications of an architectural space, reflecting the absence of central planning.

Refocussing on the builders of the *Dunnu*, who were they? It seems likely, considering the degree of organization and evidence of the building profession in the Bronze Age, that these were not *Dunnu* inhabitants. They were most likely brought in especially for the job, and moved to their next assignment after it was finished. It is interesting to put all the small variations in construction methods and materials into this perspective. Examples are slight variations in arch construction, various manners of corner and T-junction bonding patterns, or simply the variations of size and colour in mud bricks applied in a single wall. Do these variations reflect individual practices of separately operating building teams, perhaps with different backgrounds, on the same large construction site? Or are we witnessing different groups of builders on different moments in time, and do these variations therefore have a chronological dimension? Or is there a functional, structural explanation for such decisions that we may overlook?

As for the inhabitants and external visitors that lived or came temporarily to the *Dunnu*, their movements, and life, was for a large part structured by the built environment. The *Dunnu*, with its heavily controlled gate access structures could have served to keep people in, just as much as it could have kept people out. The location of access points and their characteristics suggests that the north-western official, administrative and representative side could be easily locked off from the eastern and southern, domestic and productive, side. Hence, the external and internal worlds could be kept strictly separated. Whether this was planned like this to limit entry, and improve security against externals, or to limit movement of *Dunnu*

staff, or both is uncertain. However, it is unlikely that so much effort was made into controlling space if it was not used. There is some evidence from the written sources that the *Dunnu* was at certain moments more permeable to people moving in and out. For instance, it appears that people came into the *Dunnu* to buy beer. It is also clear that certain groups of people were invited inside for social activities such as dinner parties. Another hint is found in the limited range of activities for which we have evidence that took place within the walled precinct, which indicates that other *Dunnu* staff would work elsewhere. For those that worked inside the walled precinct, it seems unreasonable to assume that the bakers, beer brewing and grain grinding staff were locked in, while others could go about more freely in sectors outside the walled precinct. Also, in terms of practicality with regards to moving items and crops in and out of storage, it seems that some freedom of movement must have been accepted. In addition, the access pattern of the eastern and southern *Dunnu* suggests quite an open and permeable string of spaces.

If we look at the use of architecture, derived from the spatial distribution of moveable objects and fixed features, we may in fact note how limited the range of activities was within the walled precinct. The main economic activities appear to have been bread baking, and related to this grain and other crop processing, cooking and possibly beer brewing. This fits in the available space in the *Dunnu*, which is for the other part used up for storage, general domestic use (living, sleeping, going to the bathroom) and for a conspicuously large courtyard and elite residence. Most other economic activities that we know from the sources were probably located outside the walled precinct. The fact that grain processing and "industrial" bread baking was located here, has probably a logical explanation in that the main grain storage, the granary, was located in the centre of the *Dunnu*. The same is true for the evidence for beer brewing. Hence, the location of these activities appears to have been a very practical and pragmatic decision. Also, of course, because bread and beer were the staple food stuffs at the centre of society. Their location in the centre of the *Dunnu* happens to underline this position symbolically, although in all likelihood, this was unintentional.

There may even be evidence that the people living in the walled precinct had their private domestic spaces. The evidence for the presence of a roofed second floor is reasonable, and one of the possible uses of this second floor could be habitation. The main reason for this interpretation is the common occurrence of such spatial divisions in many Middle Eastern urban and rural architecture traditions. A separation between work and sleeping areas could be considered a luxury, indicative of a certain level of treatment of workers. However, possible other uses of the second floor, storage or other work-related activities remain feasible as well.

The built environment of the *Dunnu* structured for a large part the lives of the inhabitants, and was designed as such. The variety of architectural structures, the spatial concentration of activities within certain areas, and the high degree of access control indicates that the *Dunnu* was largely shaped by a top-down enforced

design, where everything had its premediated place. This design was streamlined to execute the functions of the *Dunnu* efficiently and effectively. This was not just practical streamlining of tasks and activities, but could also be viewed in terms of symbolic representation.

VIII.2 Assessment of used methodology

In this study legacy excavation data was analysed to come to novel conclusions about the history of use and functional change of a so-called *Dunnu* type settlement, a fortified estate from the Middle Assyrian period, Late Bronze Age Northern Syria. Here, the effectiveness of the used methodology will be assessed. The first step was a systematic description and re-analysis of deposits related to aspects of architectural change: building, modification, decay and demolition. Information from section drawings was combined with unillustrated sequences that could be reconstructed using the day notes and deposit forms. This resulted in a standardised classification of deposits, and a classification of patterns of deposit sequences that could be observed across the site. A vital element in this approach was the creation of deposit sequence graphs, which use a standardised symbology for the deposits. These allowed for easy visual comparison of deposit sequences across the site, and the identification of various patterns in the order and type of deposits. Although these are simplified representations of the stratigraphy, they are on scale and metrically as accurate as the source data allowed, which also makes them useful for linking up the deposit sequences across the site. This was used later in the chapter on architectural analysis to critically assess the overall level stratigraphy as formulated by the excavators of the site in earlier reports.

Secondly, the architectural remains, the ruined buildings, were described and interpreted from the perspective of construction techniques and methods. The wider technological and cultural context of construction in ancient Western Asia using mud brick technology was used to inform the interpretations of this data from the *Dunnu*. Construction and deposit formation are, especially in mud brick architecture, two sides of the same coin. Understanding how people construct, modify and demolish, thus helped to clarify the formation of deposits. In addition to the deposits, the approach helped to obtain a better understanding of the builders and their techniques and methods. It showed the choices they made for foundations, wall bonding, and brick selection. Although this picture is far from clear, as such information was not systematically recorded during the excavation, various architectural contexts could be clarified, and certain interesting new patterns were described.

In chapter VI multiple approaches were used in an attempt to distil the internal logic of the architecture: how was it designed or build to match certain functional requirements? The question of phasing, which has direct repercussions on the interpretation of changing architectural functioning, was tackled first. The insights regarding deposits (chapter IV) and building methods (chapter V) were combined, underscoring

how both types of information can be used for the reconstruction of architectural phasing. This was put to use in the context of reconstructing architectural phasing and a critical assessment of the so called 'level hypothesis', forwarded by the original excavators. The systematic analysis of deposits had already revealed that some levels are very hard to distinguish between, indicating continuity of building activity and use of the settlement. At the same time, looked at from the perspective of construction methods, many debris deposits could be related to renovation and functional change, rather than abandonment and rebuilding. Together, this information was used to conclude that the existence of a site wide phase of decay in between the levels 6 and 5, as is suggested in the level hypothesis, remains very hard to proof. This is also true for the postulated correlation of stratigraphic layers with historical events causing building activity on the site.

The architectural analysis was taken further by focussing on understanding the logic of construction as viewed from the perspectives of constructional height, living, circulation, defence and various types of activities. Like the analysis of constructional methods, this helped me to better interpret the recorded architectural features in relation to these functions, but it also allowed for extrapolation of these features into a hypothetical reconstruction. With this it could be assessed to what degree the architecture was optimised to perform a certain function and therefore reveal something about intentions in the design or the absence thereof. An example of an insight that developed from using this methodology include that building height variations and presence of open spaces may have been used strategically to allow for access to light at various building levels. Another example is that the concentration of fixed features in certain places would make passage very hard, which could imply the presence of circulation routes on a higher building level.

The analysis could be improved in various ways. By looking at multiple aspects of the architecture, rather than focussing on one, not all analyses could be worked out exhaustively. Some aspects of the analysis are perhaps incomplete, and could have been more detailed or rigorous. On the other hand, it is important to underscore that focussing on multiple aspects was a decision based on the believe that the form and temporal change of the buildings of the *Dunnu* is the result of a complex of factors. A single factor model of causation would not have yielded good results, as is also always emphasised by those who study architectural forms (e.g. Figure 39). Many examples throughout this study show how different factors interact and constitute each other, resulting in surprising hypothetical relationships: between circulation and fixed features, light and building height, wall thickness and various factors that could determine it.

On the other hand, one could also say that the analysis may be improved by adding further or different perspectives. One critical question one may ask is why these analytical categories were used to assess the architecture and not certain others. For example, why a solely functional perspective was chosen and no attention spend to symbolical (e.g. Amos Rapoport, 1990), social interaction (e.g. Fisher, 2009),

psychological (Hall, 1966) or phenomenological (e.g. McMahon, 2013) factors in the interpretation of space or architecture? These are indeed possible avenues for further study, but these should not be executed in isolation. The functional analysis focusing on building methods, processes of decay and human or social requirements of the architecture would be a necessary first step. It is a powerful framework for discerning patterns and discovering the rationale of construction and thus helps us to an understanding and explanation of many seen and unseen archaeological features.

Aside from adding more theoretical perspectives, there is much potential improvement possible on the level of data collection and analysis. This study relied on existing excavation records, but discovered in the process that the character or genesis of deposits and building materials and methods could often not be established reliably during fieldwork. Individual experience and knowledge of the archaeologist determines the quality and reliability of the data. Indeed, archaeological interpretation in the field is still characterised by many unverified assumptions. Therefore, both the study of deposits and the analysis of construction techniques and methods could be improved significantly by adding microstratigraphic, petrographic and chemical tools of analysis. Various studies show how fruitful such approaches can be for more detailed and better understanding of the relation between deposits and processes of construction, decay and collapse (Friesem, Karkanas, *et al.*, 2014; Friesem, Tsartsidou, *et al.*, 2014) or the relation between building material, technology and social and cultural dimensions of construction (Love, 2013a, 2013b).

What this study revealed is the big effect of in the field interpretations and interpretations that led to the reconstruction of certain phases, drawn on site plans. It would be a very interesting subject of future study, to look at how different versions of the interpretation of archaeological stratigraphy, architecture, and site formation directly affect reconstructions or hypothetical models on a higher level, such as site phasing, but ultimately also use and function, or spatial organisation. Related to this, further interpretation of the data resulting in 3D reconstructions could also be analysed and validated in the same way by testing the effect of different options on accessibility, visibility, or defensibility. The suggested options would move away from archaeology working towards one single interpretation that finds its way in a definitive publication, but allows for multiple interpretations, and would ultimately be more honest about the real uncertainties that affect our discipline.