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

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Summary

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This dissertation investigates the construction, function, and social significance of the so-called *Dunnu* of Tell Sabi Abyad, an exceptionally well-preserved fortified settlement from the Middle Assyrian period (ca. 1230–1180 BCE) in the Balikh Valley of northern Syria. The study forms part of the research project *Consolidating Empire* and combines archaeological, architectural, and textual analyses to explore the relationship between the built environment and the imperial strategies of the Assyrian state.

The *Dunnu* is generally interpreted as a "fortified agricultural production centre", and more broadly as a rural settlement serving as an administrative, economic, and military hub within the Middle Assyrian state. Because Tell Sabi Abyad represents the only nearly completely excavated example of such a settlement, it provides a unique opportunity to examine in depth the architecture, organization, and social meaning of this settlement type. The central research question concerns how the physical structure of Tell Sabi Abyad shaped activities and interactions within and around it. Key sub-questions address how the *dunnu* was constructed - its design and building process - and who was responsible for these choices. The issue is approached from both a top-down perspective (imperial planning and control) and a bottom-up one (local adaptation and everyday use).

First, the geographical and historical context in which the *dunnu* was established likely influenced its form and functions. The *dunnu* were institutions within the Middle Assyrian state structure and must be understood in the broader context of Assyrian expansionist policy and the efforts to integrate conquered regions economically. The Tell Sabi Abyad *dunnu* occupied a strategic location in the fertile yet vulnerable Balikh Valley, which for some time functioned as a frontier zone. This was also the area where the building materials necessary for the construction of the *dunnu* were sourced.

The Tell Sabi Abyad *dunnu* consisted of a walled settlement with several functional zones, including residential areas, storage facilities, administrative spaces, workshops, and defensive structures. Clay tablets inscribed in cuneiform confirm the Assyrian origin and administrative role of the complex. Archaeological data indicate a carefully planned settlement that underwent substantial modifications within a relatively short period.

The dissertation analyses how sequences of construction activities and the deposition of mudbrick debris reveal building phases, maintenance practices, and reuse patterns. These data are essential for understanding the life cycle of the settlement and the ways in which its inhabitants physically shaped their environment. One key outcome is that the *dunnu* was not rebuilt as a whole but was modified, repaired, or dismantled in clusters. This conclusion is supported by the internal consistency of construction techniques and depositional features within building groups. The degree to which these interventions occurred synchronously remains difficult to determine. However, there is little evidence to support the hypothesis that decay or collapse prompted these alterations; rather, they seem to reflect deliberate functional and spatial reorganization.

A proper understanding of such settlements requires insight into the building culture of Late Bronze Age societies, particularly their mudbrick architecture. The full construction process is discussed - from material

selection to structural techniques, including foundations, bonding patterns, vaults, and roofs. In this context, the architectural characteristics of the *dunnu* are examined in detail. Traces within the wall construction demonstrate that the complex was built by professional craftsmen familiar with the techniques and the properties of materials. The overall approach reveals pragmatic efficiency, yet subtle variations in masonry and material choice point to a greater complexity whose meaning remains only partly understood. Technical aspects of architectural modifications, such as the opening and closing of doorways and the relocation of walls, are likewise considered.

Based on architectural analysis, the building phases are reconstructed and the spatial configuration of the *dunnu* is examined. Using architectural, archaeological, and spatial criteria, individual buildings and the distinction between roofed and open areas are formally defined. Spatial modelling and accessibility analysis reveal how routes, thresholds, and sightlines structured movement within the settlement. The influence of smaller built features, such as bread ovens and storage bins, on internal circulation is also examined. Special attention is paid to lighting, ventilation, and drainage, which demonstrate practical solutions for comfort and hygiene in a semi-arid climate. Wall thicknesses are used to estimate building heights, and a possible relationship is observed between height variation, the positioning of open spaces, and light distribution - indicating a deliberate design. The defensive architecture - walls, gates, and towers - is analysed systematically as well, revealing that security and control were central design principles.

Analyses of activity and circulation patterns form the basis for exploring functional differentiation within the site. To complete the picture, earlier research on activity patterns based on artefact distributions and textual evidence from the cuneiform tablets is also included. The results point to a clear spatial zoning of functions, visible in the architecture, infill processes, and access patterns. The northwestern sector likely functioned as an administrative centre, while the southern and eastern zones were primarily devoted to food production, craft activities, and habitation. Extramural areas accommodated potters, craftsmen, and possibly facilities for travellers and animals. The large central tower is identified as the most probable location for grain storage, based on its proximity to the main courtyard (where harvests were likely received), its massive construction, and its secure position. Although it is difficult to generalize from a single example, it seems plausible that *dunnus*, as multifunctional settlements, were organized modularly, with buildings and architectural forms flexibly adapted to local conditions and changing needs.

In summary, the *dunnu* of Tell Sabi Abyad exhibits a series of purposeful, top-down–initiated renovations in which controlled demolition and spatial reorganization served functional rather than restorative aims. As a result, the previously assumed boundary between building levels 6 and 5 becomes blurred, and continuity of occupation dominates until a later phase of decline. Major building campaigns reorganized access and use, while smaller, local adjustments occurred mainly after the administrative peak and during the much later reuse of the complex. Architecture influenced movement, labour, and social hierarchy, structuring distinctions between representational, domestic, and productive zones.

Methodologically, the study demonstrates how reanalysis of older excavation data - through systematic stratigraphic classification, sequence diagrams, and constructional studies - can yield new insights into phasing and use. The integration of stratigraphic and constructional evidence proved essential for recognizing both continuity and functional change. At the same time, the study highlights the limitations of existing field data and the need for future microstratigraphic, petrographic, and digital (3D) research. It

emphasizes the importance of making interpretive uncertainties explicit and of modelling their impact on archaeological interpretation.