

Architectonic Aspects and Cultural Significance
of Raising Orthostats in the Ancient Near East:
Formation of a Shared Architectural Practice

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In a recent article on the metaphorical quality of architectural materials, Myriam Blais argued that building technologies can be envisioned as a "celebration of materials" through innovation. Innovation is described here as a "creative encounter between thought and materials" or "the imaginative handling of distinct materials through skilful work." In most cultural contexts, the site of a monumental building project is a site of material elaboration, a site of festive and collective activity that brings the society together in a productive undertaking and constitutes an unusual socio-spatial context for the exchange of ideas, technological innovation, and exploitation of natural resources. The specialized craft activity cultivates and maintains a sophisticated corpus of artisanal knowledge, an assemblage of regional technologies. Material resources, labor force and qualified craftsmen are mobilized to the political center, as symbolic capital. Raised by way of such material processes, the monuments are commemorative on various levels. Their skilful construction commemorates the historical circumstances of economic prosperity and social transformation precisely at the time during which they were built. But, as material evidences of that socially conspicuous event, they also continue to commemorate their own making by invoking the technologies and social relations of their manufacture.

[Map] The architectural practice of using sculpted orthostats in monumental buildings is usually understood as an idiosyncratic phenomenon of Upper Mesopotamia during the Iron Age. The Early Iron age in particular, roughly between the 12th and 9th centuries BC, represents a new period of urbanization in Upper Mesopotamia, both in Assyria, and among the Luwian and Aramaean regional states, where several new cities were constructed with new ideological affiliations and a new socio-economic framework. The Assyrian and Syro-Hittite rulers of this period commissioned a series of monumental building programs, in which the idea of raising stone orthostats as a wall cladding technique became a remarkably widespread. **[Orthostats]** This was also precisely the time when these architectonic surfaces were transformed into surfaces of representation, displaying narrative relief programs and monumental inscriptions.

With their commemorative character, the orthostat programs gained the status of an inter-regionally shared royal insignia, and their narrative disposition gave both shape and meaning to ceremonial spaces in the urban landscapes.

The cities of Kalhu and Karkamiš are good paradigms for such monumental undertakings. When Aššur-nasir-pal II founded Kalhu in early 9th c. BC near the confluence of the Tigris and the Upper Zap, his craftsmen employed new architectural technologies, including carved stone orthostats. The “decorative” programs of the Northwest palace and the Ninurta temple are considered innovative both in techniques of manufacture and subject matter of their visual representations. Likewise in the course of the 10th and early 9th centuries BC, the Suhis-Katuwas dynasty at Karkamiš fundamentally transformed the urban landscape of their royal city through a series of building operations. An impressive urban ensemble was constructed immediately south of the citadel mound, stretching from the so-called “Water Gate” to the “King’s Gate” in the approximate center of the Upper town, accommodating a series of monumental structures. The public spaces of the entire complex were surrounded with basalt and limestone orthostats with relief representations of cultic, mythological and historical subject matter, as well as hieroglyphic Luwian inscriptions. So far, with regard to these roughly contemporaneous and innovative building programs, scholars have only focused on the visual analyses of relief representations and the literary examination of annalistic texts displayed on the orthostats. Rarely studied however, is the architectural significance of orthostats, as a construction technique that was an outstanding component in the lexicon of architectural technologies during the Iron Age.

It is argued in this paper that the practice of consolidating the lower halves of mudbrick walls using ashlar stone socles or orthostatic revetments was initially a construction strategy intended to overcome the deterioration of wall surfaces, and it was attested especially in North Syria and Anatolia from early second millennium BC onwards. Since the craft of stone-cutting was a flourishing technology during the Early Iron age when effective iron tools were introduced to building practice for the first time, the finely-worked, pictorially articulated stone façades increasingly acquired a symbolism of prestige and power. It is illustrated in the following that while the practice of raising orthostats was known from North Syrian cities of the Middle Bronze Age, the idea of using wall surfaces to illustrate pictorial narrative compositions owed considerably to the Middle Euphratene and Assyrian traditions of wall painting of the second millennium BC. The combination of the two cladding techniques into an inter-regionally shared technological style of relief orthostats was only crystallized as part of the large-scale and commemorative building programs of the Early Iron age in Upper Mesopotamia.

The word *orthostat* is an architectural term borrowed from classical Greek [*orthostatês*] to refer to upright stone slabs used in wall construction. These stone slabs were used practically

to consolidate the lower courses of mudbrick walls against erosion caused by rain, wind or other forms of everyday physical damage. As a technique of wall cladding (*Bekleidung* in German), orthostats alleviated the effects of weathering on building surfaces. Mostafavi and Leatherbarrow suggest that the acquired knowledge of weathering phenomenon in buildings against environmental-climatic conditions, enabled the building craftsmen transform this problem into a design criterion and improve continuously the tectonic qualities of building surfaces by means of adopting various techniques of finishing. This aspect of building practice that reflexively adjusted itself in due relation with the continuous monitoring of weathering throughout the history of architecture has been an important component in the formation of what Kenneth Frampton refers as *architectonic culture*. I would like to suggest that Frampton's concept of *architectonic expression* as a localized poetics of construction may be helpful in interpreting the evidence of orthostat tradition, since this conveniently bridges the gap between the *cultural artifact* and its *making*. In our case, I argue that architecture may *not* be dissociated from its making and the technologies of its making, and in fact it derives its symbolism, meaning and style from the very act of its making. In this way, the built-environment is interwoven by means of a culturally meaningful tectonic expression, which is achieved through complex processes of craft production.

The materials and technology employed in wall construction varied from region to region, but the most common technique in the North was certainly mudbrick walls with timber framing. In the regions that have abundant sources of stone such as the Anatolian Plateau and the Levant, ashlar foundations were simply raised up to the dado level, by means of a few finely dressed ashlar courses above the ground, to serve as a protective "wall socle". A stone socle provides greater structural stability to the mudbrick superstructure, and avoids surface dampness, water creepage and erosion at the base of the load-bearing walls. A alternative practice to wall socles was to introduce thinner rectangular slabs to function as revetments on the lower wall faces, apparently an economization and refinement of the socles. Stimulated by the tectonic surface quality and the sense of monumentality that the wall socle and orthostatic masonry offered, the craftsmen eventually transformed these stone surfaces into fields of pictorial representation. This was developed throughout the Late Bronze Age along with other wall cladding techniques, such as wall painting and glazed brick decoration both of which also became representational media.

The evidence for the early use of plain orthostats is attested in North Syrian sites during the Middle Bronze age, which runs roughly from the beginnings of the second millennium to the military campaign of Muršili I into North Syria at the beginning of 16th c. BC. The material history of Syria during this period has been elusive due to the fragmentary nature of the archaeological evidence vis-à-vis the complexity of the textual record. However new

archaeological evidence from sites such as Tell Mardikh, Tell Mishrifeh, Aleppo, Tell Atchana and others suggests that in the first half of the second millennium BC, a new wave of urbanization and the formation of regional states was in place.

It has recently been argued that Ebla of the Middle Bronze I (Mardikh IIIA) was built in a relatively short period of time as a planned city-building project, a new urban foundation that sealed off the remains of the Early Bronze Age IVB following a short hiatus. This involved the construction of two sets of fortifications (citadel and the lower town) palatial and temple complexes on the citadel and the belt of public buildings immediately around the citadel. Several architectural innovations are identified in the context of this construction, including the use of finely dressed stone slabs. In the Southwest Gate, finely dressed basalt and limestone orthostats of about 1.80 m. in height lined the walls of the inner and outer gate structures, which were then tightly connected with a trapezoidal hall. The basalt revetments consolidated the protruding piers while limestone was used alternatively in the facing of inner rooms/recesses. Both the monumental design and tectonic quality of the gate suggests that the structure had a ceremonial character in the urban landscape of Ebla. The Temple D on the Western edge of the Ebla citadel was also built towards the beginning of Mardikh IIIA, and has an axial plan with a longitudinal cult room, a vestibule and a porch. The doorways were consolidated with massive orthostatic blocks culminating with a cult niche on the symmetrical axis. The main cult chamber itself features a low limestone socle, faced with well-dressed ashlar blocks, while it was presumably paved with basalt blocks. The use of high wall socle with ashlar masonry is perhaps best illustrated by Monument P3, a massive cult-platform (52.5 x 42 m) in the lower town area, immediately North-west of the citadel. The three courses of roughly hewn large limestone blocks that are used for facing of the inner court (23x12.5 m) is reminiscent of the stone masonry of monumental buildings in the Late Bronze Age Eastern Mediterranean and in the imperial Hittite cities of the Anatolian plateau. The use of finely dressed orthostats is also attested in the contemporaneous palace complexes excavated at Ebla, especially the better preserved Western palace in Area Q to the west of the citadel. Most of the northern and southeast façades of the Western palace were lined with orthostats at a height of 1.50 m raised on top of 2-3 courses of finely worked ashlar socle. In addition, certain privileged spaces and doorways were consolidated with ashlar upright slabs.

One of the most essential gaps in the archaeology of Syria has been the lack of archaeological investigations in Aleppo, rightly identified with the capital city of the powerful regional state Yamhad. Since 1996, excavations were carried out by the joint Syrian-German archaeological team at the citadel of Aleppo in a limited area, and they located a Middle Bronze Age temple on a massive scale and its early first millennium rebuilding. Based on the prominent location of the structure in the topography of the citadel, its massive size, and the

relief program on the early first millennium orthostats that were uncovered so far, the excavators identified the building as the textually well-known temple of the Weather God of Halab. The northern and western walls of the early second millennium temple were lined with finely dressed uncarved limestone orthostats, 1.2 m in height and raised above an ashlar foundation. The orthostats have consistently small circular dowel holes or mortises on their top surfaces, presumably to receive wooden tenons with molten lead fixing, to attach the orthostat to the timber beams above and thus to the rest of the wall structure. The preliminary reports by Kohlmeyer and Khayyata demonstrate that the earliest temple with uncarved orthostats must date to the beginning of the second millennium BC, and reconstructions of the temple are continuous throughout the Late Bronze and Early Iron Ages.

At Tilmen Höyük, a sizable Middle Bronze settlement seventy-five km north of Aleppo on the eastern bank of Karasu river, a palace complex of comparable architectonic sophistication was excavated by Bahadır Alkım and his team between 1958 and 1971. Level IIc₁ in Tilmen Höyük, provisionally dated to 18th-17th c. BC, was marked with the construction of the palace, the establishment of a large lower town and the construction of a casemate fortification system. The palace was built on the south-western edge of the citadel and approached through the citadel gate K-5. The entrance to the palace is through a well-planned stone-paved plaza, perhaps serving as an outer ceremonial court, where the facades of the palace are revetted with basalt orthostats of monumental size and very fine finishing. The orthostats of a height of 90 cm were raised on roughly worked ashlar foundations and a low plinth above ground level. Like the Aleppo orthostats, these also carried circular mortises on their top surface. The excavations suggest that the superstructure of the walls were primarily in mudbrick, rising high in two floor levels. The complex has a clear plan with an official and a private sector, and the walls of the official sector was consolidated with orthostats.

Similar orthostat wall constructions are known from contemporaneous sites such as Tell Atchana. It is evident that uncarved orthostats and finely dressed ashlar masonry were prestigious architectural technologies in Middle Bronze age North Syria and they were used primarily in temples, city gates and the urban façades of palaces. While construction techniques were shared among these sites, significant regional similarities in the architectural design of urban ensembles such as three-piered gate structures, overall design of temples and ceremonial/reception sectors of palatial residences were attested. The intensive inter-regional contacts during the Late Bronze age allowed an ever widening of the architectural *koine* of using finely dressed ashlar masonry. From Cyprus to the Levant and from North Syria to Hittit Central Anatolia, the use of cut-stone masonry gradually became a pervasive aspect of the urban landscapes, by means of an operative circulation of architectural knowledge. The earliest attempts to incorporate relief representations to the finely dressed stone surfaces of

monumental structures are attested in Hittite sites like Alacahöyük and Boğazköy during the fourteenth and thirteenth centuries BC. Recent excavations in the two North Syrian sites however, namely Ain Dara and Aleppo citadels have further illuminated the early formation of the programmatic sculpted orthostat programs in cultic contexts during the Late Bronze age- Early Iron age transition. A monumental temple dedicated to Ištar-Šawuška and decorated with an impressive sculptural program in basalt and limestone, was excavated at the Late Bronze- Iron Age settlement on Tell Ain Dara, 40 km north-west of Aleppo, overlooking the Afrin valley. The director of the excavations, Abu Assaf identified three building phases, mostly based on the program of architectural sculpture, extending from 1300-740 BC. The earliest temple, founded sometime in the Late Bronze Age, was raised on a limestone platform with a monumental double-column entrance, an ante-cella and a main cult-room. The architectonic features of the temple is better understood for the slightly later second phase, when carved steles, orthostats and decorated architectural members were introduced to the corpus of the temple construction. The architectural sculpture include cultic reliefs, orthostats inlaid with guilloche patterns and architectural members such as staircases also carved with guilloche patterns in relief. The temple combines limestone and basalt forming a striking overall material contrast between the tectonic members in limestone and sculptural elements in basalt. The last phase of the temple in the Early Iron Age introduced a corridor like processional platform all around the cella and a series of basalt steles erected on limestone bases, as well as lion and sphinx orthostats and protomes decorating all around the façade. A similarly spectacular orthostat relief program is under excavation at the Aleppo citadel.

This brings us back to the Syro-Hittite building practices of the Early Iron Age, and in particular the Suhis-Katuwas dynasty's urban project at Karkamiš, where such orthostat relief programs burst out into the main public spaces of the urban landscapes. At Karkamiš and other Syro-Hittite cities, ceremonial urban ensembles that contained temples, palaces, monumental gates were built and their facades and courtyards are exuberantly animated with limestone and basalt orthostats with narrative relief representations and commemorative inscriptions. In one of these inscriptions from the King's Gate at Karkamiš, the Late 10th early 9th century BC "Country Lord" Katuwas commemorates the construction of a temple to Tarhunzas, the Karkamišean Storm-God in the following:

But I myself then constructed the temples with luxury for Karkamišean Tarhunzas
for him I established ARASI-bread.
And these gates of my grand-fathers passed down to me
When I built the holies of the temple
these orthostats "came after" me,
these gates I "orthostated"
they were very costly
I built them (also) with wood
and these *upper floors* for Anas my beloved wife as TAWANI-apartments I made...

The word translated here as “orthostat” by Hawkins is associated with Hittite *kutt-*, “wall” while *kuttesar*, a Luwoid word for “wall, walling” also attested in Boğazköy texts. Following Hawkins’s translation, the context makes it perfectly clear that here it is used for orthostats, the “overturning” of which was cursed later in the same inscription. Orthostats here are understood as an architectural technology of high socio-symbolic value, presented here as part of the ruler’s ideology of construction and royal rhetoric. Katuwas’s inscription in fact reminds us an early 11th century annalistic text of the Assyrian king Tiglath-pileser I from Aššur, concerning the construction of the *bīt šahūru* and *bīt labbūnu* of a palace:

...with this (same) cedar wood, I constructed those *bīt šahūru* from foundations to crenellations
I surrounded it all around with slabs of basalt. *Bīt labbūnu*, opposite to it,
I constructed of terebinth from foundations to crenellations. With slabs of limestone
I surrounded it all around. This palace of cedar
and terebinth I constructed, completed perfectly and made its appropriate decor splendid.
a *nahiru*, which means a sea-horse, with a *pariangū* (harpoon?) of my own making
which by the command of the gods Ninurta and Nergal, great gods, my lords, in the [Great] Sea
[of the land of A]murru, I killed; and a live *burhiš*, which was transported from the land of Lumaš
[...] the other side of the land Habhu. I made their representations in basalt
I stationed them on the right and left [at my royal] [entrance].

Even though there is little archaeological evidence for the use of orthostats from the Early Iron age structures at Aššur, Tiglath-pileser I is referring to precisely the same architectural technology as Katuwas’s inscription from Karkamiš: the basalt *agurru* in line 63 must be understood as orthostats. The raising of orthostats as a construction technique has clearly become part of the inter-culturally shared royal rhetoric and acted as a powerful medium of representation in the social sphere at the same time.

In conclusion, I suggested in this paper that the initiation of orthostat relief programs functioned on multiple levels of social signification and material practice in the earlier part of the Iron age. First and foremost, having started as a prestigious architectural practice in the Middle Bronze age, orthostats were transformed into a pervasive feature of the urban fabric in the refounded cities of the Early Iron age, coinciding with the significant shifts in the ideological and socio-economic structures of the new Syro-Hittite cities. The innovative technological style of finely worked and pictorially articulated stone surfaces brought in a renewed concept of ceremonialized public spaces. At the same time, the idea of raising orthostats became a rhetorical device of imperial ideologies in the Syro-Hittite and Assyrian states. The Assyrian cities participated in the architectural *koine* of the Upper Mesopotamian stone-cutting tradition, as the Assyrian state was transformed from a small regional state on the Middle Tigris into a territorial state of the Upper Tigris and the Jazira, and came into close interaction with the Syro-Hittite states throughout the Early Iron age. As evident in Tiglath-pileser’s text, ubiquitous architectural materials such as basalt and representationally powerful architectural technologies such as orthostat programs and monumental gate sculpture were considered as symbolically charged cultural importations from exotic landscapes of the frontiers. The metaphorical

language of monuments, therefore, is not limited to the pictorial and textual narratives that the monuments may offer: the construction materials and techniques, the tectonic aesthetics of buildings become part and parcel of the metaphorical vocabulary of architectural representation.