An MB II Orthostat Building at Tel Kabri, Israel

ASSAF YASUR-LANDAU
Department of Maritime Civilizations
The Leon Recanati Institute for Maritime Studies
University of Haifa
Haifa, 31905, Israel
assafyasur@hotmail.com

ERIC H. CLINE
Department of Classical and Near Eastern Languages and Civilizations
The George Washington University
345 Phillips Hall, 801 22nd St. NW
Washington, DC 20052
ehcline@gwu.edu

NURITH GOSHEN
Graduate Program in the Art and Archaeology of the Mediterranean World
Elliot and Roslyn Jaffe History of Art Building
3405 Woodland Walk
University of Pennsylvania
Philadelphia, PA 19104
nurithgoshen@hotmail.com

NIMROD MAROM
Laboratory of Archaeozoology
University of Haifa
Haifa, 31905, Israel
nimrodmarom@yahoo.com

INBAL SAMET
Department of Maritime Civilizations
The Leon Recanati Institute for Maritime Studies
University of Haifa
Haifa, 31905, Israel
inbalsamet@gmail.com

During the summer of 2011, a two-room monumental structure was found at the site of Tel Kabri in Israel. Designated as the "Orthostat Building" because of its extensive use of orthostats and paving slabs found still in situ, the location, plan, and architectural features of this building raise questions about its function and relation to the palace of Kabri and its chronological phasing within the palace's history. The use of orthostats and ashlar paving stones, which is otherwise rather rare in Middle Bronze Age structures in Canaan, calls for a reevaluation of the impact of Syrian and Aegean architecture on the Kabri palace, in view of the already established Aegean influence on the site. The building, with its elaborate interior design and features, was erected at the same time that other great architectural changes took place in the palace of Kabri, including a thickening of the palace walls. These changes, although possibly simply functional, are also suggestive of deliberate choices by the palace elite to exemplify their power to the local population while at the same time attempting to follow the greater Mediterranean trends of their time.

INTRODUCTION

The site of Tel Kabri is located some 5 km from the Mediterranean coast, near the modern cities of Akko and Nahariyya in the western Galilee of Israel. Today it lies within lush plantations of bananas and avocados belonging to Kibbutz Kabri, but it was once the capital of a large Canaanite polity during the Middle Bronze Age. Previous excavations were conducted at the site from 1986 to 1993 by the

Fig. 1. Photograph of the palace in D-West, with walls and rooms labeled (photograph by SkyView Photography, Ltd., looking north).

late Aharon Kempinski of Tel Aviv University and Wolf-Dietrich Niemeier, then at the University of Heidelberg; the current excavations have been undertaken since 2005 by Assaf Yasur-Landau of the University of Haifa and Eric H. Cline of The George Washington University.

The goal of the renewed excavation project at the Middle Bronze Age Canaanite palace of Tel Kabri is to understand the rise and establishment of the Canaanite palatial system at the site. This is being achieved through a diachronic study of palatial economy and patterns of consumption at the palace, as well as the use of architecture and art as manifestations of political power (Cline and Yasur-Landau 2007; Yasur-Landau, Cline, and Pierce 2008). The Aegean-style wall and floor paintings found previously by Kempinski and Niemeier, as well as the additional fragments found by our expedition, make Kabri unique in the Canaanite Middle Bronze Age political landscape, at least in terms of what we believe was a deliberate use of foreign and exotic style in an otherwise local palatial context (Cline, Yasur-Landau, and Goshen 2011).

Following Kempinski and Niemeier, we believe that during the final phase of the palace (Kempinski's Stratum 3c, our local Phase DW III), the northwestern wing of the palace was public/ceremonial in nature, composed of Hall 611, with a painted plaster floor, and the adjacent Room 740. Two of the external walls of the palace—northern Wall 673 and western Wall 80009—formed the northwestern corner of the palace (figs. 1, 2). A one-course-deep zigzag stone feature (2129), perhaps a causeway, paralleled Wall 673 (Cline, Yasur-Landau, and Goshen 2011).

During the summer of 2011, a two-room monumental structure was found, built against the external face of Wall 80009 and therefore possibly outside the palace (fig. 3).[1] In this building construction, ashlar

[1] Senior staff members and senior scientific collaborators during the 2011 season at Kabri included Nurith Goshen (area supervisor, University of Pennsylvania), Alexandra Ratzlaff (area supervisor, Boston University), Inbal Samet (area supervisor, University of Haifa), and Helena Tomas (register of finds, University of Zagreb, Croatia), Andrew Koh (residue analysis, Brandeis University), Felix Höflmayer (radiocarbon, German Archaeological Institute in Berlin), Ruth Shahack-Gross (geoarchaeology, Weizmann Institute), David Ben Shlomo (petrography, Hebrew University of Jerusalem), and Guy Bar-Oz and Nimrod Marom (zooarchaeology, University of Haifa). Research during the 2011 season was supported by grant number 848/10 from the Israel Science Foundation, The Institute for Aegean Prehistory, The Recanati Institute for Maritime Studies, Columbian College of Arts and Sciences and the Institute for Middle

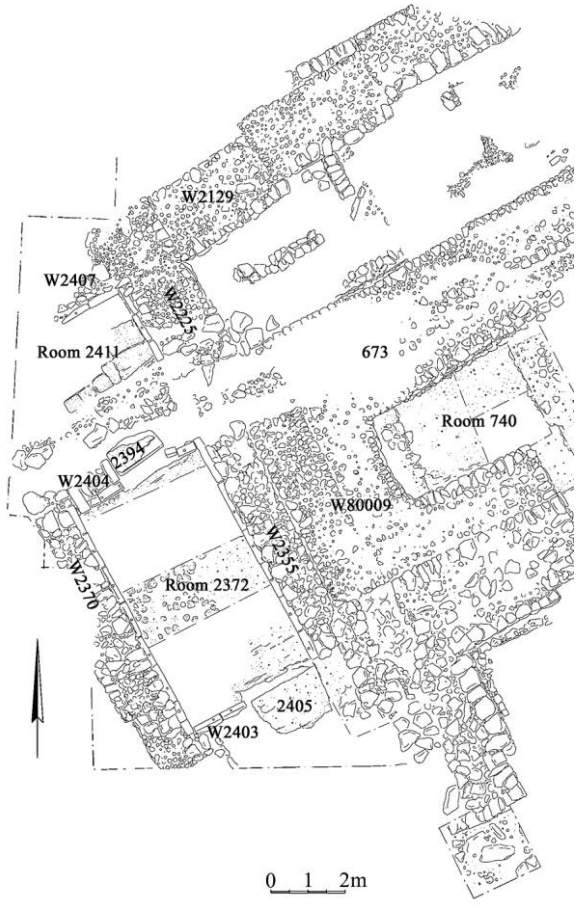

Fig. 2. Plan of the northwestern corner of the palace and adjacent features, with wall numbers (drawn by Dov Porotsky).

masonry in the form of orthostats and paving slabs was used extensively; therefore, it is referred to here as the "Orthostat Building" (a designation hereafter used without quotes). The location, plan, and architectural features of this building call for queries about its function and relationship to the palace of Kabri and its chronological phasing within the palace's history. At the same time, the use of orthostats and ashlar paving stones, which is otherwise relatively uncommon in Middle Bronze Age structures in Canaan, calls for a reevaluation of the impact of Syrian and possibly also Aegean architecture on the Kabri palace, in view of the already established Aegean influence on the site.

East Studies at The George Washington University, as well as private donors, including Ralph and Mary Grace Crosby and Jeffrey Leach. Equipment was provided by Dr. Alon Shavit, Director of the Israeli Institute of Archaeology. We would like to thank all of the above, as well as our supporters and team members in previous seasons, in addition to James Weinstein, editor of this journal, and two anonymous reviewers for their useful comments and suggestions.

THE ORTHOSTAT BUILDING

Based on its stratigraphic relation to the palace and pottery assemblage (see below), the Orthostat Building is attributed to our local Phase DW III (parallel to Kempinski's Stratum 3c) and dated to the end of the MB II period. In the current state of excavations, it is hard to determine whether this building is a new unit first built during the renovation phase following Phase DW IV (= Kempinski's Stratum 3b) against the outer wall of the Kabri palace, or if the structure was built on the remains (i.e., foundations) of a previously existing unit but also as part of the renovations.

There was no direct access from the northwestern wing of the palace into this building; they were two separate entities. The nature of the area in front of the building, and its relationship to the possible entrance to the palace, however, are unclear and remain to be excavated in future seasons. At present, only a small patch of floor plaster marks the entrance into the building; it is not defined by any walls, as the wall to its east (2355) has been robbed in this area, and the wall to its west (2370) was also disturbed by later activities here. On the southern edge of this patch, parallel grooves were discerned in the plaster, possibly created by a door.

The building itself is a narrow and long structure with outer measurements of 5.8 m wide × ca. 16 m long (at a minimum). It was entered from the south through Doorway 2405, which was situated on the eastern end of the south wall, Wall 2403. There are two rooms, 2372 and 2411, which are arranged from south to north, separated from each other with an elaborate threshold, 2394 (fig. 3). Room 2372 was the main room of the building, measuring 6.8 × 3.6 m (inner size). We have not yet recovered the eastern wall of Room 2411, so the dimensions of the back room are not known for certain, but the room is approximately square, probably measuring ca. 3.6 × 3.6 m.

The eastern and western walls of Room 2372 were preserved for nearly the full length of the room, but the southern and northern walls were only partly preserved. Each has a stone foundation with a mud-brick superstructure. This is, with variations, the conventional building method both at Kabri and in the southern Levant in the Middle Bronze Age (Wright 1985: 414–17). The mud-brick upper segment of the walls has collapsed and melted since antiquity, and no mud bricks were preserved in situ.

Fig. 3. The Orthostat Building, looking from north to south, with the entrance (2405) at the top of the picture (photograph by E. H. Cline).

The east wall of Room 2372 (2355) is 1.1 m thick. It is constructed of large field stones, with smaller stones filling the gaps between them, thus creating a compact and massive foundation. The wall is disturbed both at the southern and northern ends; thus, only 6 m of the east face and 6.8 m of the west face are currently still preserved. It was built against the massive, 3.6 m thick wall of the palace (80009). Its stone foundation's top level is, however, ca. 40 cm higher than the top level of the stone foundation of the palace wall.

The western wall of Room 2372 (2370) was built in a similar manner. Its width ranged from 1.0 to 1.3 m in thickness. Despite their significant width, the walls of this room are not nearly as wide as the adjacent walls of the palace.

Orthostats line the internal faces of both eastern and western walls—six orthostats along the eastern wall and eight along the western wall (fig. 4). This is a feature not encountered before at Kabri, even in the palace. The orthostats were made of worked beach rock. They vary in length from 40 to 150 cm. They also vary in width, from 20 to 30 cm. Only the northern orthostat against the east wall was exposed to its fullest height of 58 cm. The tops of the orthostats were aligned at 55.00 m, except for a higher step of 15 cm at the south end of both walls; that is to say, the southernmost orthostats against both walls were symmetrically elevated by 15 cm.

This change in orthostat elevation was also reflected in the floor level of the room. Instead of an expected step, echoing the step in the orthostats, the floor slopes down approximately 20 cm in less than half a meter, with its elevation changing from 54.96 to 54.76 m, beginning at the same place where the orthostats change their top level. The floor then remains at this lower level, virtually flat, for the rest of the room; at the northern end, its elevation is 54.74 m, which means a change of only two cm over nearly six meters. In other words, most of the floor of Room 2372 is at a lower level than the small area just inside the doorway (fig. 5). This design plan remains unexplained.

Fig. 4. Orthostats lining the internal faces of both eastern and western walls within the Orthostat Building (photograph by E. H. Cline, looking north).

A rectangular dowel hole 4 × 4 cm in size and 8 cm deep was cut by a chisel into most of the orthostats (fig. 6). One exception is a conical hole probably drilled into the eastern elevated orthostat. It is possible that this dowel hole was unfinished. If so, one can suggest that the dowel holes were first drilled and then squared out, using a chisel. This, as discussed below, is a different practice than the more frequent use of tubular drilling in north Syria. A few orthostats, however, had no dowel holes cut into them. In addition, the position of the dowel holes on the orthostats was not always the same, resulting in a slight lack of symmetry when comparing the east and west walls.

The top part of each orthostat was chiseled flat, except for the area situated immediately under the stones of the adjacent wall. There, the slab was left slightly elevated and not finely finished. The flattened area was used as bedding for the wooden frame, which the orthostats supported and which was connected to the orthostats by pegs inserted into the dowel holes. It seems clear that the top of each

Fig. 5. Slope in the floor of the Orthostat Building, just inside the entrance (photograph by E. H. Cline, looking east).

orthostat was chiseled flat after the slabs were already in place next to (and partially under) the stones of the adjacent wall. Thus, we hypothesize that the orthostats were placed in position at the time of the wall construction, and were cut, leveled, and adjusted in situ next to the wall against which they were placed. As such, we rule out the option that the orthostats in this room originated from an earlier phase in Hall 611, and we emphasize the fact that stone cutting was done not only in the quarry but also on site.

As mentioned before, the southern wall (2403) of the main room was heavily damaged. Only two orthostats oriented east–west were preserved, as well as a few large field stones at the western corner (ca. 50 × 25 cm). The orthostats in this wall are of the same scale and nature as the orthostats discussed above. In most instances, the back side of these orthostats remain unworked, indicating that additional stones were placed behind each of them. However, the back of the easternmost orthostat is partially worked (fig. 7), suggesting that an additional north–south orthostat would have been placed perpendicular to it; a similar arrangement is visible at the northern end of the room and supports such a conclusion (fig. 8A, B).

Fig. 6. Orthostat with dowel hole and working of stone visible (photograph by E. H. Cline).

The floor of Room 2372 was only partly uncovered during the 2011 season. Three areas were exposed: the northernmost 40 cm of the floor; a 1.7 × 1.5 m probe

Fig. 7. Partially worked back face of easternmost orthostat within the southern wall of Room 2372 of the Orthostat Building; the plastered entranceway into the room is on the right (east) (photograph by E. H. Cline).

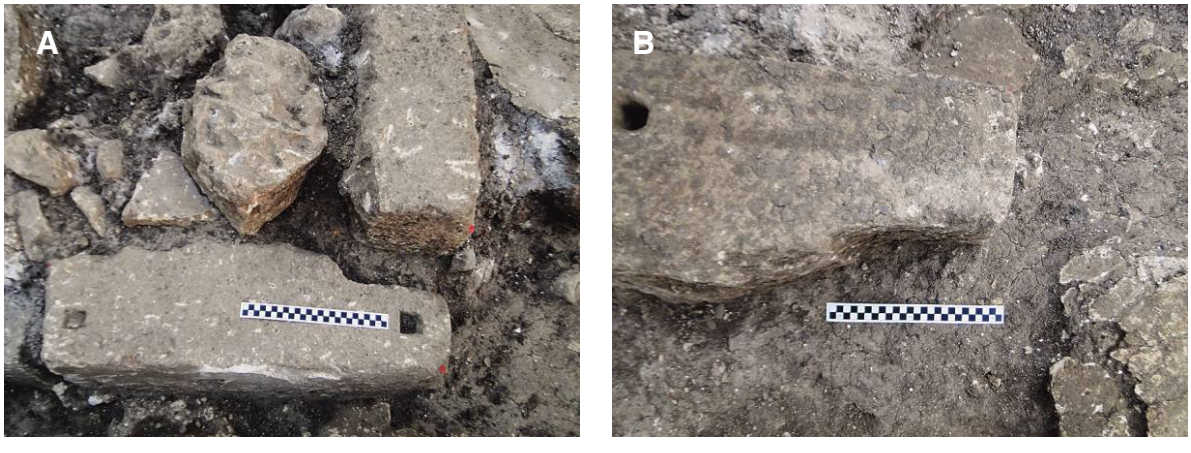

Fig. 8. (A) North wall of Room 2372, with the perpendicular orthostats in situ (photograph by E. H. Cline, looking north). (B) Easternmost orthostat of the south wall of Room 2372 with the same shape, suggesting the placement of a perpendicular orthostat (photograph by E. H. Cline, looking north).

Fig. 9. Large chunks of plaster from the wall or ceiling, fallen onto the floor, as well as a few pottery fragments (photograph by E. H. Cline, looking south).

at the southeast corner of the room; and a 1.5 m wide section in the center of the room, crossing it entirely east–west from Wall 2355 to Wall 2370. The floor was made of white plaster, with small stones (ca. 5 cm in diameter) in the makeup below. As mentioned above, there is an abrupt slope, dropping 20 cm over the space of only half a meter, observable immediately next to the higher orthostats mear the southern ends of Walls 2355 and 2370, but thereafter the floor is essentially flat at the lower level for the rest of the room.

On top of the entire floor was a thick layer of mud-brick collapse ca. 30 cm thick. Along with the mud bricks, large chunks of plaster collapsed into the room (fig. 9). The sheer quantity of plaster found suggests

Fig. 10. Western anta of the northern wall of Room 2372. It comprises four orthostats organized in a U-shape, with field stones filling the gaps between them (photograph by E. H. Cline, looking south).

that it came from the room's walls and ceiling. Only a few unrestorable pottery sherds and a number of animal bones were found in this room; it seems to have been almost empty at the time of the collapse.

The northern wall of Room 2372 (2404) is the dividing wall between this main room and the back room (2411). The construction of this wall can be separated into three units: the east anta, the west anta, and Threshold 2394. Unfortunately, a large channel was cut at some later date immediately to the north of this wall and undermined it. Therefore, only two orthostats remain of the east section. On one of these, a patch of plaster was preserved, indicating that the orthostats of Room 2372 were originally covered by plaster. The slabs of this wall, as well as the stones of Wall 2355 to the east, were situated on a sandy layer. Only a small patch of this sandy layer has so far been uncovered in a small area, but it already seems likely that this material was the matrix of a palatial floor that predated the construction of the Orthostat Building. If this is true, then the building was inserted into one of the original palace wings either after it had gone out of use or as part of a major renovation.

The western anta was better preserved. It comprises four orthostats organized in a U-shape, with field stones filling the gaps between them (fig. 10). The outer faces of the orthostats were covered with plaster. As mentioned briefly above, the easternmost orthostat has the eastern end of its back (north) side worked, as preparation for another perpendicular orthostat fitting here. In general, the western section of the wall seems to have been purposefully built as a separate unit, slightly different from the rest of the wall. Its role in the building's design is still unclear.

Threshold 2394 was situated in the center between the two antae (figs. 2, 3). It was built of a large 140 ×

Fig. 11. The back room (2411) of the Orthostat Building, showing the east wall (2225) and the north wall (2407) (photograph by E. H. Cline, looking southwest).

70 × 35 cm beach-rock slab whose surface was covered by three layers of plaster. The first coarse layer, 2 cm deep, was laid immediately onto the slab. Two thin layers, only a few millimeters thick, were then laid on the coarse plaster, one on top of the other. The plastered slab was probably once held in place by orthostats on both sides, but is now askew, having tilted into the later robber trench that was dug through the area.

In the back room of the Orthostat Building (2411), only three walls have been uncovered to date: the dividing wall (2404) described above, the east wall (2225), and the north wall (2407); the west wall remains to be excavated in a future season, if it is still present (fig. 11). The north wall (2407) is mainly disturbed by an Iron Age pit. Most of the stones of this wall are missing, but two orthostats have remained in place.

The east wall (2225) is closer in character to those of the palace, such as Wall 673 and Wall 80009, than it is to those elsewhere in the Orthostat Building. It is built of field stones in various sizes, with a layer of small stones (5 × 5 cm) creating a level top. The east and west faces of the wall are clearly defined, as they are built of larger stones, while the core of the wall comprises to a greater degree rubble and mud mortar. Since orthostats also line the inner face of this wall, it appears on first glance to be the continuation of the east wall of Room 2372 (2355); however, they differ both in building technique and in width (1.7 m vs. 1.1 m). The differences between these two east walls (2225 and 2355), as well as the fact that the stone feature/causeway (2129) abuts the building from the east, may indicate that the east wall of Room 2411 already existed prior to the construction of the Orthostat Building, and that when the building was constructed, this wall was incorporated into the new plan.

The walls of Room 2411 were also lined with orthostats. These vary in length from 60 to 150 cm, with rectangular dowel holes, comparable in size with the dowel holes in the orthostats of Room 2372. The top

Fig. 12. Plaster rolling up from the floor and onto the orthostats in the back room (2411) (photograph by E. H. Cline, looking south).

elevation of the orthostats in this room, however, is 54.92 to 54.96 m, some 4–5 cm lower than the orthostats in Room 2372. The width of the orthostats is irregular; they vary from 27 cm in the south to 18 cm in the north. All of the orthostats in this room were coated with plaster, which rolled up from the floor to cover the wall (fig. 12), but their connection to the wall behind them is not as clear as the relation between the orthostats and the walls in Room 2372, as here they lack the elevated unworked area**.** At times, there is even a ca. 2 cm gap between the orthostats and the stones of the walls in this back room.

The floor of Room 2411 is another special architectural feature of the building. It is paved with cut slabs in various sizes, made of beach rock. The slabs are covered with white plaster, which rolls up and onto the orthostats lining the walls, as just mentioned. The covering plaster obscures these floor slabs almost completely and renders it difficult to determine their exact size and position. They are noticeable only in several instances in which the slabs were moved by later disturbances. This floor was not fully explored during the 2011 season, but it can be said that on this floor, similar to the floor of Room 2372, there was a

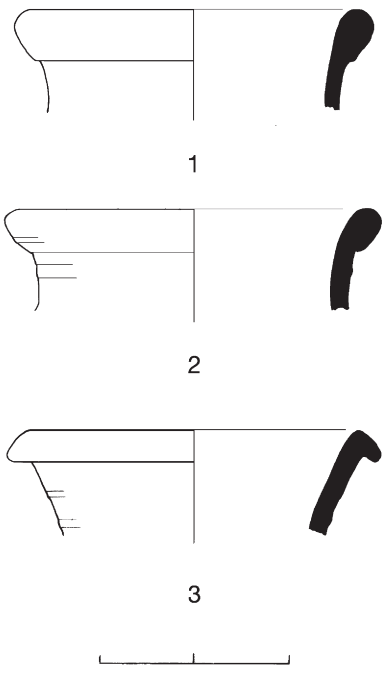

Fig. 13. Pottery from the back room (2411); registration numbers (1) 2410–21/2; (2) 2410–24/1; (3) 2410–20/1 (after original drawings by R. Pollak).

thick collapse layer ca. 30 cm thick. This layer also contained many chunks of white plaster that probably originated from the walls of the building. Unlike Room 2372, however, the occupational debris covering the floor of Room 2411 was full of pottery sherds (some belonging to three pithoi apparently smashed in situ, others indicative rims from six other smaller vessels), and a number of animal bones.

The Pottery

The only obviously restorable pottery retrieved from the building was the remains of the three large storage jars/pithoi just mentioned. These were found in situ on Floor 2411 of the back room of the structure (fig. 13), an area that has not yet been completely excavated. The only bases found so far in this locus are very thick (3 cm max.) rounded bases.

Although the vessels still remain to be fully restored (rim fraction 1 = 95%; 2 = 30%; 3 = 40%), it is already clear that two (fig. 13:1–2) were large storage jars/pithoi, each with a mouth measuring 17 cm in diameter. They have thick, folded rims that flare slightly and are between 2.5 and 3.0 cm long, respectively, rounded at the top. The bottom of the rim is not smoothed in with the neck, which is straight and short (2.5–3.0 cm between the rim bottom and the curve of the shoulder, respectively), and thus the bottom of the rim is clearly distinguishable from the neck. The ware is orange; it is well fired and has large white and gray grits.

It seems fair to say at this point, judging from the bases, the thick, nearly straight-sided body sherds, and the mouth diameters, that these vessels were most likely handleless, ovoid pithoi or large storage jars. By comparison with complete pithoi that were recovered in Kabri previously, these would have stood between 70 and 100 cm tall.

Parallels for jars with this predominant folded type of rounded rim within the palace of Kabri can be found in Kempinski's latest Stratum 3 phases (3c and 3d), including on the latest palace floors and in fills above them (Kempinski, Gershuny, and Scheftelowitz 2002: fig. 5.57:10–13). A similar rim was also found in the topmost MB II locus (L104) in Shalem's salvage excavations at Kabri (Shalem 2009: fig. 11:5). A large pithos with a folded, rounded rim was also found in Stratum 3 in Kabri (Kempinski, Gershuny, and Scheftelowitz 2002: fig. 5.41:12; 28 cm in diameter). Parallels for these rims, however, do not appear in more variegated assemblages *preceding* the final phase of the palace.

Parallels for these two vessels can be found elsewhere in Canaan, primarily in distinctive late MB II contexts, including Akko Phase 2a (Beeri 2008: pl. 10:19) and Hazor Stratum 3 (Yadin et al. 1961: pl. 144:5). At Sidon, similar rims (nonrestorable; probably residual) were found in a Late Bronze Age pit inside a Middle–Late Bronze Age building (Doumet-Serhal 2004: pl. 9:11–12).

The third restorable vessel (fig. 13:3) is a large, handleless storage jar/pithos, with a 17 cm diameter mouth. It has a sharply everted rim, forming a sort of ledge surrounding the mouth of the vessel, and a flaring neck with subtle ridges. The ware is orange; it is well fired and has large white grits. Although it is made from clay local to the region around Kabri, according to petrographic analysis, there is no parallel for it in Kabri; however, an identical rim was found in Hazor Stratum VII, in the latest MB II phase in Area D (Yadin et al. 1958: pl. C:10).

In addition, indicative rims were found of two other large storage jars (similar in type to fig. 13:1–2), two small storage jars, and two jugs or small jars, all from the same locus of occupational debris as the fragments from the three large storage jars, i.e., on the floor of the

back room (2411). Petrographic analysis indicates that all the vessels were probably produced in the vicinity of Kabri and, in any case, not outside the area of the northern Canaan-southern Lebanese coast (D. Ben-Shlomo, personal communication).

In all, the pottery from the floor of the Orthostat Building, essentially all of which came from the back room of the building, seems to represent a rather limited function, that of storage carried out in medium and large storage vessels. There are none of the serving vessels (bowls, kraters, juglets, and small jugs) that have been found elsewhere in the palace.

Zooarchaeological Finds

The zooarchaeological finds recovered from the vicinity of the Orthostat Building were few and do not form standalone evidence for the function of the edifice. The patterns and interpretations below should therefore be treated with caution. For brevity, only summary figures are presented here (raw data and further analyses will be published in Marom forthcoming).

The animal bones affiliated with the Orthostat Building in Area DW (see fig. 14) were recovered from floors and occupation deposits in the building proper (Concentrations 1 and 2), as well as from deposits against and adjacent to the building's outer wall in the area between the northern wall of the palace and the causeway (Concentration 3). For instance, the bones in Concentration 1, from Room 2372 within the Orthostat Building, come from Loci 2363, 2365, and 2375, which represent the occupational debris on top of Floor 2372. The bones in Concentration 2, from Room 2411 within the Orthostat Building, come from Locus 2410, which is the occupational debris on top of Floor 2411.

The bones in Concentration 3 are from a series of loci (2165, 2167, 2171, 2179, 2181, 2185, and 2187) found within the levels of the occupational debris next to the causeway, outside and to the east of the Orthostat Building. As there are no openings in the palace's walls in this area from which refuse could have been discarded, it is more likely that the bones came from activities in and around the Orthostat Building rather than from activities within the western wing of the palace. In addition, Locus 2399 belongs to the area excavated immediately southwest of the Orthostat Building and is completely separated from the palace itself. Therefore, we would suggest that the abovementioned contexts very likely constitute midden deposits associated with episodes of meat consumption

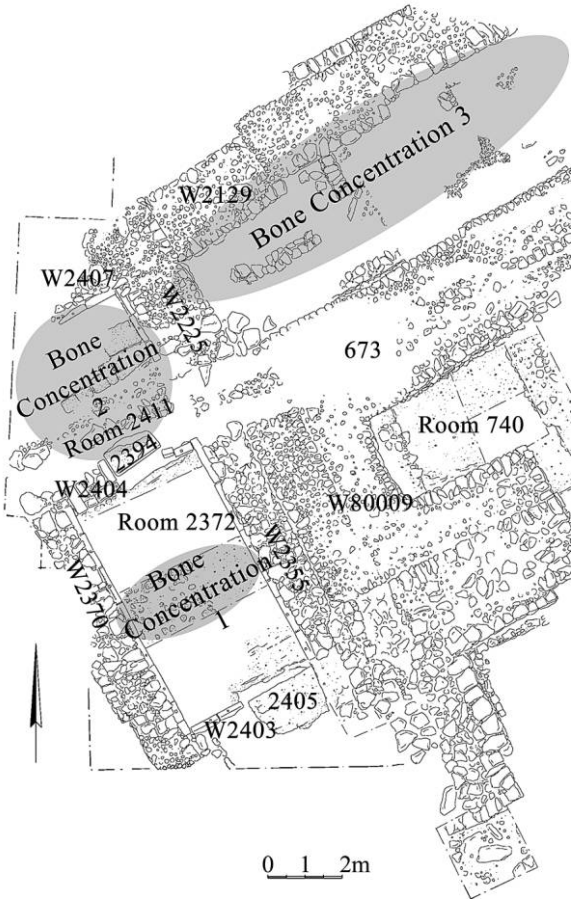

Fig. 14. Locations of deposits with animal bones affiliated with the Orthostat Building in Area DW (Concentration 1 = Loci 2363, 2365, and 2375; Concentration 2 = Locus 2410; Concentration 3 = Loci 2165, 2167, 2171, 2179, 2181, 2185, and 2187).

that took place in the precinct (Marom and Zuckerman 2011 and references therein). We note that the usual pattern of deposition of bones at most sites in the Levant and elsewhere is that they are not deposited where they were consumed (primarily places that people would like to keep clean), but rather are discarded in nearby trash deposits.

The total number of identified specimens (NISP) is 30, of which 18 were identified to biological taxon (table 1). The other 12 were relegated to a mammal body-size class. The state of bone preservation in the assemblage is good, with few (NISP = 3; 10%) of the specimens bearing carnivore gnawing marks and none severely weathered by prolonged postdepositional exposure before burial (cf. Behrensmeyer 1978).

TABLE 1. Number of Identified Specimens in the Midden Deposits and the Orthostat Building

	Context	
Taxon	*Midden deposit*	*Indoors*
Caprines	8	3
Sheep (*Ovis aries*)	2	
Goat (*Capra hircus*)	1	
Pig (*Sus scrofa*)		3
Cattle (*Bos taurus*)		1
Medium mammal	5	6
Large mammal	1	
NISP	17	13

Note: The taxon Caprines includes sheep and goat bones not identified to species and does not include the specimens in the Sheep and Goat categories.

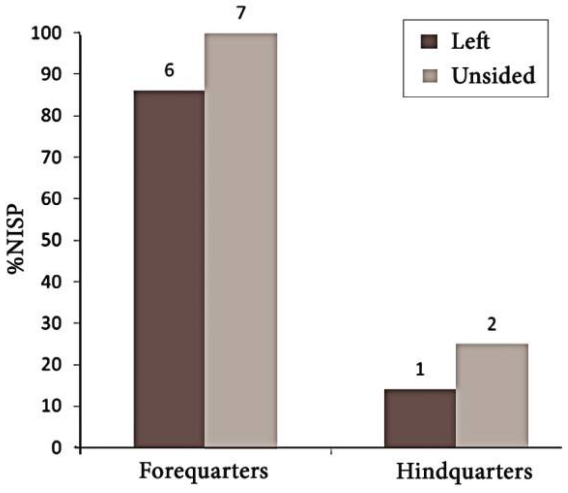

Fig. 15. The percentage of forequarters vs. hindquarters and the percentage of left-sided elements vs. elements for which the side (right or left) could not be decided (i.e., "unsided") in the midden deposits. No right-sided elements were identified. Y-axis values are normalized NISP (%NISP); numbers above the columns are absolute counts for each category (NISP).

The midden deposits are comprised primarily of sheep and goat bones (NISP = 11; 79%), which are the sole identified biological taxa (table 1). Moreover, the body-part counts show clear dominance of caprine forequarters, and of left-sided elements (fig. 15). All the bones in the assemblage have fully ossified metaphyses and therefore belonged to subadult and adult animals (Silver 1969). The few mandibular specimens with teeth indicate a similar adult age-at-death (Grant 1982).

The faunal remains from within the building proper include the remains of sheep or goats (NISP = 3) and pigs (NISP = 3), in equal proportions, with a single cattle specimen and nine bones that could only be identified as having belonged to medium-size mammals. These elements represent mainly limb elements, with scant representation to axis skeleton and feet. Although the sheep/goat bones and the pig bones could conceivably have come from single animals, the fact that these bones accumulated over time makes it somewhat easier to assume that each individual specimen is from a different animal (Gautier 1984).

The analysis of the wet-sieve samples from the main room (Loci 2363, 2365, and 2375), back room (Locus 2410), and exterior (Locus 2399) of the Orthostat Building yielded contextual differences that may indicate, when integrated with other strands of evidence, what use was made of different spaces (Marom and Zuckerman 2011). Comparison among different contexts in terms of density of bone specimens, levels of fragmentation, and frequency of burned specimens was facilitated by converting the raw values into percentages of the highest value in each category (fig. 16).

It appears that find density, fragmentation intensity, and frequency of burned specimens are lowest in the back room of the building, compared with both the outside middens and the main room. A likely cause for greater breakage would be trampling (Nicholson 1992); the back room may have been accessed less frequently, which would, over time, mean a lower likelihood of bone breakage. This interpretation is supported by the overall lower density of bone specimens in that context. Furthermore, this interpretation is supported by the ceramic evidence, which indicates the back room was used as a storage area and therefore less frequented than the front room.

In comparison with the outdoor middens, the indoor contexts of the building seem to hold a large proportion of pig bones. Pigs are not uncommon at Kabri (9% of the entire assemblage recovered in the 2010 excavation season), which is in line with their ubiquity in other settlements of the Middle Bronze Age in the southern Levant (e.g., Aphek: Hellwing and Gophna 1984: 50; Lachish: Croft 2005; Tel Qashish: Horwitz 2003; Tell el-Hayyat: Falconer 1995). The contrast between pig bones inside the building and sheep/goat bones outside the building, however, is puzzling. The actual presence of these bones on the floor of the build-

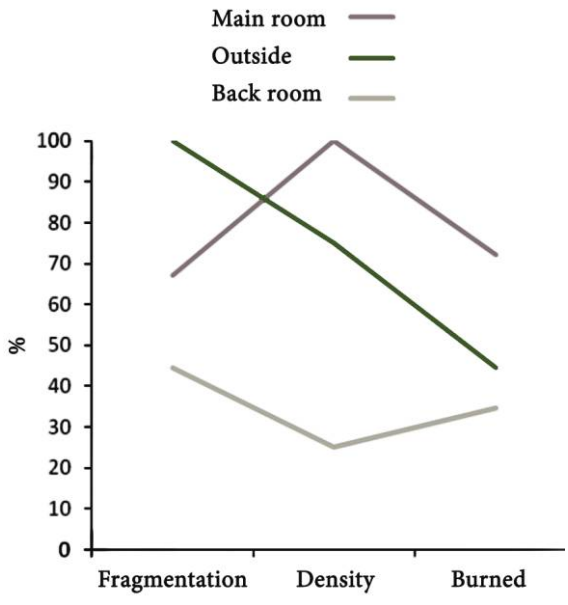

Fig. 16. Rank-order comparison of the intensity of fragmentation, frequency of burned bones, and density of bone specimens between the main room, back room, and extramural contexts of the monumental building. The data were normalized as percentages of the highest value in each measured or counted variable. A line-plot format has been used to facilitate comparison.

ing should also be accounted for, since the interior was otherwise almost immaculately clean.

Although it is possible that the bones were left by squatters after the main occupation of the building had ceased, it seems much more likely that they were not deposited by direct consumption at all, but originally arrived there within the mud-brick material used to construct the upper portions of the walls of the building and were therefore deposited only after the building had collapsed (at which time the mud bricks fell on the floor and eventually disintegrated, leaving the bones behind). In other words, the pig bones found in the structure may belong to a "background noise" of such bones existing in the tel already (since the tel was already old at the time) and were brought into the structure as part of the construction of the mud-brick structure and only deposited accidentally during the final collapse of those walls. This is a much more appealing explanation than the possibility that the people occupying the building simply left pig bones lying on the floor of the nicely built and well-maintained structure, which is otherwise rather clean of in situ finds. This hypothesis may be strengthened if one accepts that the more pristine nature of a midden deposit is indeed a proxy for the nature of consumption activity within the Orthostat Building.

Within the limitations imposed by the very small sample size, some tentative observations can be made. It would seem that adult sheep and goats were the major livestock animals for meat consumption in the Orthostat Building. Furthermore, only specific parts of the animals were routinely eaten—namely, the left forequarters (see again fig. 15).

This may be of importance, since a preference for forequarters is known from several other contemporary sites in northern Israel, notably Tel Dan (Areas A and Y; see Wapnish, Hesse, and Ogilvy 1977: 58), Tel Michal (Hellwing and Feig 1989), and Tel Aphek (Hellwing and Gophna 1984: 53), while a preference for body side, that is left vs. right limb bones, has also been noted in one Middle Bronze Age assemblage elsewhere in Canaan (Shiloh Stratum VII: Hellwing, Sade, and Kishon 1993: 313). This would indicate a formal apportioning of carcass parts and, furthermore, the segregated partaking of the allotted pieces away from the actual slaughter and butchery scene—also known from communal feasts in Mycenaean and Classical Greece (Bergquist 1993: 17; Dabney, Halstead, and Thomas 2004) and in Canaan (Klenck 2002: 89).

This can be explained by the fact that in Mesopotamia, and apparently among the Canaanites as well, the forequarters seem to have been the choice portions for gods and priests. In particular, the right limb elements were deemed proper sacrifices to the gods and their human attendants (cf. Emar 446 in Fleming 2000: 269; in the Hebrew Bible, Exod 29:22; Lev 7:32, 33; Lev 8:25, 26; Lev 9:21; in an archaeological ritual deposit from Tel Qiri, a Canaanite village in northern Israel, cf. Davis 1987; 2008; for theoretical exposition of this topic, see Needham 1973).

The dominance of left-sided elements in the midden deposits at Kabri, if the same system of dedicating the right forequarters to the gods and their attendants holds true, would indicate that the consumers of meat in the Orthostat Building can be inferred to have been non-clerical, since the consumed limbs were from the left side, rather than the right side, which was reserved for priests. However, the consumers would still have been among the elite—perhaps royal rather than clerical—because typologically the eating of mutton in the Orthostat Building figures among the exclusive feasting events for members of the elite (Steel 2004; Vardaki 2003; cf. Hebrew Bible, Exod 29:27–28). An inclusive event, by comparison, would have involved communal partaking of sacrificial flesh and the deposition of a diverse assemblage of bones from all parts

of the animal carcass (cf. the Late Bronze Age Hazor deposit: Lev-Tov and McGeough 2006: 106).

THE USE OF ORTHOSTATS AND ASHLAR PAVING AT TEL KABRI AND ELSEWHERE IN THE AEGEAN AND EASTERN MEDITERRANEAN

Initial insights on the function and meaning of the Orthostat Building may perhaps be gained from a brief study of its most conspicuous architectural refinements—namely, the combined use of orthostats and ashlar paving stones. While these architectural elements are not common in Middle Bronze Age Canaan, they are widely used throughout the eastern Mediterranean during the first half of the second millennium from Crete in the west to Syria in the east.

Kabri

At Kabri itself, use of ashlar paving stones was attested prior to the discovery of the Orthostat Building. Some of the slabs were found in situ, while others were found out of context or in secondary use. Examples found in situ were used to pave Thresholds 1443 and 1444 (R. Oren 2002: fig. 64) in Area D as well as to build Installations 1517 and 1538 in Area F (R. Oren 2002: 66). Threshold 1444, connecting Ceremonial Hall 611 with Courtyard 607, was made of nine slabs, all of which were covered by painted plaster. The slabs are approximately 0.5 m wide and vary in length (Niemeier and Niemeier 2002: fig. 6.1). The threshold is currently covered, for conservation purposes, and the slabs cannot be closely examined. Threshold 1443, connecting Courtyard 607 with Room 603, is paved with eight large slabs and five smaller pieces that fill the gaps between the large slabs. The slabs are rectangular or rhomboid in shape, and their sizes are diverse. Most have at least one dimension that is about 0.5 m, but there is no regularity in their positioning.

In Area F, which was identified by Kempinski as a ceremonial part of the palace, ashlar slabs were also used. Installation 1517 was uncovered in the northern part of Area F. There, eight kurkar slabs were incorporated into the lime floor of the courtyard. They vary in shape, size, orientation, and even elevation. The northernmost slab was incorporated into Wall 1516 and was placed ca. 0.5 m higher than the rest of the slabs, which were positioned along Wall 1525. A narrow plaster strip separated them from the wall. Installation 1538 was situated at the south of area F, where it functioned as a built podium.

Only a few examples of upright worked orthostat slabs had been found at Kabri prior to the 2011 season; all were found out of context. For example, in the southern part of Area D—near Courtyard 603—a slab 41 × 92 × 21 cm in size was found out of its original context. It was discovered standing on its narrow side, but it was not adjacent to any wall. The position of the slab may be explained by the collapse of the baulks or from the work carried out during the installation of a water pipe and the construction of the road. All sides of the slab were worked, and no deliberate holes or grooves were marked on it.

Another slab, undocumented by Kempinski, was found out of context on the surface next to the Nahariyya-Meona road, which crosses the tel between Area F and Area D of the old excavations. This slab, measuring 13 × 65 × 37 cm, was cut from beach rock and is worked on all sides. No drilled or chiseled holes were identified on any of its faces. On one of its corners, there is an irregular and deep hole, which seems to be the result of modern activities.

More slabs were found in the upper part of the tel (Area E). There they were used, or rather reused, in the construction of an Iron II fortress. Four of them were used in constructing steps leading upward from Room 1318 (Lehmann 2002: 84, fig. 4.99), and another was incorporated into Wall 1340 (Lehmann 2002: fig. 4.90). The slabs are made of beach rock, with all visible sides worked.

Given the information that was available before the 2011 excavation season, one could conclude that all slabs at Kabri were used as paving slabs of thresholds and installations, rather than being used as orthostats. Kempinski and Niemeier, however, had already speculated on the existence of orthostats in the palace, within Ceremonial Hall 611 (e.g., Kempinski 1990: 44; Niemeier and Niemeier 2002: 255).

The floor of Ceremonial Hall 611 was first discovered by Kempinski and Niemeier during the 1990 excavations (Niemeier and Niemeier 2002) and was fully exposed in subsequent seasons. Painted plaster covered the entirety of the floor in Hall 611, as well as Threshold 1444 leading to the east. The plaster, however, was cut abruptly in an irregular line, leaving a gap ca. 80 cm wide between the edge of the floor and the walls of the room, around the entire circumference.

Kempinski and Niemeier hypothesized that the gap was created by looters during the robbing of orthostats that had covered the lower part of the walls in Hall 611

during its final phase (Kempinski 1990: 44; Niemeier and Niemeier 2002: 255). Kempinski claimed, with regard to the reconstruction of the palace, that "[T]he proposed reconstruction and functional analysis is based not only on excavation data but also on analogies from Syria which inspired urban culture in Palestine during this period" (R. Oren 2002: 69). He further suggested that the western part of the palace, Area D, was comparable with the official area in the northern part of the palace at Alalakh, an area that utilized orthostats.

Therefore, even though there were no upright orthostat blocks found in situ in the palace at Kabri, Kempinski believed that orthostats had originally been present; perhaps they had been later robbed and reused on the upper part of the tel during the Iron Age. However, the "evidence" for the original existence of orthostats in Hall 611 is entirely limited to those he hypothesized to have been in the 80 cm gap along the walls of the room, along with the few unprovenanced slabs mentioned above" (R. Oren 2002: n. 5). In other words, the orthostats uncovered in the Orthostat Building during the 2011 season are the first to have actually been found in situ at Kabri.

Crete

In Crete, while examples of orthostats exist in later periods, they are mainly an early palace phenomenon, dating to the MM Ib–MM IIb periods ca. 1900–1750 B.C. (Shaw 2009: 59; on the dating of the period, see Manning 1995: 217, and Warren and Hankey 1989: 169). In general, they were incorporated into the external face of important facades and were always placed over a plinth (Shaw 2009: 59).

At the old palace at Phaistos, dated to the MM Ib period, both the north and south sections of the west facade were built using orthostats (Shaw 2009: 60; Levi and Carinci 1976–1988: 29–349). The orthostats were placed on a plinth, and square dowel holes were chiseled into their tops. While the average height of the orthostats in the northern section was 1 m, in the southern section it was only 0.65 m (Shaw 2009: 59).

At Knossos, only the first course of gypsum orthostats was preserved of the west facade. This early course has been dated to the proto-palatial period (Macdonald and Knappett 2007: 170–71). More interestingly, the orthostats found in the palace proper are unique. There they were used to line both the inner and outer faces of walls (Shaw 2009: 62). The orthostats on the internal face of the wall were attached to those on the external face by wooden clamps, a singular method at the time (Shaw 2009: 63–64, fig. 93; Evans 1921: fig. 95). They were 1.15 m high and irregular in shape. Only one eroded dowel hole was recognized at Knossos, which still suggests that the orthostats were probably also physically bound to the superstructure (Shaw 2009: 64). Orthostats were also in use in the west wall of the central court (Evans 1921: 196). In the little palace at Knossos, orthostats were also found, dated to the MM IIIa period (Hatzaki 2005: 197–99).

At Chrysollakos, north of the palace at Malia, the east and south facades of a MM I burial structure were built with hard limestone orthostats placed on a high plinth. Round dowel holes were drilled in their tops (Shaw 2009: 61). This is the earliest example of the use of orthostats on Crete.

The continuity of the use of orthostats into the neopalatial period at Crete can best be seen in Building T at Kommos. The outer face of this building was lined with two lines of orthostats on top of a plinth. The lower course was 95 cm high and 30 cm deep, while the upper course was 45 cm high and ca. 60 cm deep (Shaw 1983).

The use of orthostats did continue in Crete beyond the proto-palatial period. However, as in other parts of the world, ashlar masonry became more widely used, and orthostats eventually lost their place in monumental architecture.

Slab pavements were quite common in the Aegean during the Middle Bronze Age. Limestone was used often to pave open spaces such as the west and central courts of the palaces, and gypsum was used to pave inner spaces and even upper stories (Shaw 2009: 150; Hult 1983: 47). However, the common paving method was done with irregular-shaped flat stone slabs, frequently separated by red painted plaster. This achieved a very different effect than the ashlar floor in Room 2411 at Kabri.

Cyprus

In Cyprus, where ashlar masonry is known from the Middle Cypriot period (Hult 1983), examples of orthostats are known only from the Late Cypriot period. The orthostats at the fortress at Nitovikla may be the earliest example. Previously dated to the MC III period (Hult 1983: 15; Sjöqvist 1940: 394), the fortress is now believed to have been constructed in the LC Ib period (Hult 1983: 189; MC III–LC I and LC II dates have also been suggested—see Knapp 2008: 260, and Karageorghis and Demas 1984: 71–72). There, two

large conglomerate orthostats were placed on both sides of the fortress gate. They measured ca. 1.5 m in height, ca. 0.5 m thick, and 1.2–2 m in length, placed on a stone plinth. Later examples of orthostats are also known from sites such as Enkomi and Kition (Hult 1983: 16–17).

Syria

In Syria, examples of orthostats dated to the Middle Bronze Age come from central sites such as Ebla, Aleppo, Alalakh, and Qatna. At Ebla, for instance, during the MB I–II period, orthostats were used in the construction of gates, palaces, and temples, including on the east side of the southwest gate. These were basalt and limestone orthostats, ca. 1.8 m high, situated on a plinth (Pinnock 2001). The back of the basalt orthostats was greatly uneven, and their section was trapezoid in shape. This shape, Matthiae suggested, served to assist the construction of the vaulted ceiling of the gate (Matthiae 1980: 122; Gregori 1986: 93). The back of the limestone slabs, however, was hewn. All of the orthostats had drilled cylindrical dowel holes, created by a tubular drill, which were placed in regular intervals in order to connect them to a wooden frame (Matthiae 1980: 122).

Orthostats were also used at Ebla in Temples D and B1 of the MB I–MB II period (Ebla IIIA–B). In Temple D, one orthostat bearing the image of the rear of a lion was found, though not in situ (Matthiae 1980: 131–32). This is reminiscent of later orthostats carved with a lion shape from Hazor (Ben-Tor 2006: 4–5). Two basalt steps paved the entrance to the back cella of Temple D, accentuating the entrance to the back room in a similar manner to that encountered in the Orthostat Building at Kabri. In addition, in Palace E, orthostats lined the bottom of walls in the north section, while the floor of the corridor and the thresholds were paved with ashlar slabs (Matthiae 1980: 133; Hult 1983: 66). Orthostats were also used in Palace Q (Hult 1983: 66), so it is clear that the use of orthostats was widespread in the architecture of monumental buildings in Ebla IIIA–B.

At Aleppo, the capital of the Yamhad kingdom, the ancient layers are buried under medieval and later construction. However, in recent excavations, a temple associated with the god Teshub has been brought to light. In the early layers associated with the Middle Bronze Age, limestone orthostats, 1.2 m high, were found situated on an ashlar plinth lining the temple walls. These had circular dowel holes drilled in their top, while the back of the orthostats was unworked (Kohlmeyer 2000; Harmansah 2005: 77).

At Alalakh, in Phase VII, both at the city gate and at Yarim-Lim's palace, orthostats were also used (Woolley 1955: 92; Hult 1983: 38). At the city gate, the orthostats were limestone slabs measuring ca. 1.65 × 1.0 × 0.50 m, placed on a plinth made of field stones or roughly cut stone. Much organic material was found in the gate area, which reconfirms the notion that the orthostats supported a wooden frame. The orthostats were tilted slightly inward, so, perhaps like the gate at Ebla, they may have supported a vaulted superstructure (Gregori 1986: 92). At the palace, both basalt and limestone slabs measuring 0.4 to 0.9 m high adorned the inner and outer walls of the official area. These orthostats were placed on top of a low plinth made of coarsely cut stones.

Interestingly, in Room 5 within the Palace of Yarim-Lim, considered to be the audience room, the basalt orthostats were covered with plaster painted with a marbling effect (Woolley 1955: 230–32; Niemeier 1991). Hult suggests that, based on their alignment, the orthostats were fitted and cut during the construction of the wall (Hult 1983: 67). Just as in the palace at Kabri, thresholds leading into the ceremonial areas and at the entrance to the palace at Alalakh were paved with stone slabs (Woolley 1955: 92–93, 110–31).

At Qatna, the date of the orthostats is uncertain, as the royal palace was built at the end of the Middle Bronze Age and remained in use until the Late Bronze Age (Bonacossi 2007; Novák 2004; Pfälzner 2007: 36–43). However, basalt and limestone orthostats were used in the palace and the city gate (du Mesnil du Buisson 1935). The orthostats in the palace were situated in large reception halls, with the basalt orthostats measuring 68 cm in height (du Mesnil du Buisson 1935: 86; Pfälzner 2007: 35). In addition, the thresholds were paved with basalt slabs (du Mesnil du Buisson 1935: 71–79). At the west city gate, large limestone orthostats were used together with ashlar masonry during the Late Bronze Age (Hult 1983: 66).

At Tilmen Höyük, in the MB II period (Level IIC), basalt orthostats situated on ashlar plinths were used to line the bottom of the throne-room walls in Palace A (Marchetti 2006; Naumann 1971: 410). In this building, orthostats were also used to line the external face of the palace walls next to the monumental entrance leading from the paved court into Room L3. The entrance itself, like the entrance at Alalakh, was paved with basalt slabs and was articulated by deep recesses (Marchetti 2006: figs. 3, 4).

And finally, at Hazor, while a certain degree of continuity from MB II is attested in the city (Yadin et al. 1989; Mazar 1992), evidence of basalt orthostats with drilled dowel holes exists from the Late Bronze Age Stratum Ib. Although traditionally (and geographically) Hazor is situated in the southern Levant, culturally it is regarded as the southern example of north Syrian practices (following Maeir 2000). Finely dressed basalt orthostats have been found in the temple of Area H in the lower city (Yadin et al. 1989: plans 37, 38), in monumental buildings in Area A of the upper city (Bonfil 1997; Bonfil and Zarzecki-Peleg 2007), and in the monumental structure in Area M (Zuckerman 2010: 167). Basalt slabs were also used for paving thresholds and steps at the site in the Middle and Late Bronze Age, such as the well-known threshold of the temple in Area A (Bonfil 1997: 55). One unique case of a pavement made of basalt slabs was found in the podium room in Area M (Zuckerman 2010: 167–68). This, although later, is very reminiscent of the paving in the back room of the Orthostat Building at Kabri. Zuckerman considers these slabs as the reuse of orthostats (Zuckerman 2010: 167). Such paving is generally considered rare in the Near East, and no comparanda are known from the Middle Bronze Age (Hult 1983: 73–74).

Southern Levant

The beginning of the use of orthostats in the southern Levant was much later than that in Syria and is not earlier than the later part of the MB II (or MB III). The pattern of use is similar to that in Syria—i.e., in the inner parts of gates, palaces, and temples.

In the East Gate at Shechem, for example, orthostats were laid on a stone plinth. The construction of the gate is dated to MB III (Shechem XVA phase, according to Dever 1974: 41) and thus may be roughly contemporaneous with the construction of the Orthostat Building at Kabri. The orthostats comprise the main building material of the lower part of the gate piers, including pairs of orthostats that were set as a pier. Shallow grooves on the top of the slabs probably had a functional, constructive purpose. The orthostats were made of fine-grained limestone specially quarried and brought from an area east of the site (Campbell 2002: 135–39). Additionally, in the Northwest Gate of Shechem, which is slightly earlier than the East Gate (XVI phase, according to Dever 1974: 41), orthostats of similar sizes were recorded (Campbell 2002: 110).

At Gezer XVIII (MB III), the inner piers of the South Gate were formed by pairs of orthostats. The slabs are 1.83 m in height, 2.2 to 2.7 m wide, and ca. 55 cm thick (Macalister 1912: 242; Burke 2008: 262–63).

In the Middle Bronze Age palace at Lachish (Level P-4), we do not find orthostats but, rather, large limestone ashlar slabs which were incorporated into the lower section of the wall and covered with plaster. Ussishkin (2004: 56) has suggested that the large stones originated from the P-5 palace and were reused for the construction of the P-4 structure. They vary in size; examples are known to measure 0.8 × 2 m, 0. 8 × 1.5 m, and 0.8 × 0.4 m. No mortises or dowel holes were identified. However, it was indicated that a layer of small stones was laid between one of the slabs and the mud bricks (Ussishkin 2004: 154–55).

In Palace I at Tell el-ʿAjjul, ashlar slabs of sand and gypsum stone were used in the inner and outer faces of at least three of the four small rooms along the eastern wing of the palace (Petrie 1932: 3–4). They are ca. 75 cm tall and 15–22 cm thick. The palace is usually dated to the MB II period, although Oren has suggested redating it to MB III (E. Oren 1992: 110; Herzog 1997: 126–27).

COMPARISONS OF THE SHAPE AND INNER FEATURES OF THE ORTHOSTAT BUILDING

There are other instances in the Levant of unique units with a series of internal spaces connected along a long axis and located adjacent to a large hall or a courtyard in Middle Bronze Age palaces, but, unlike at Kabri, the entrance to such units is always through a bent axis. For example, at Ebla, three rectangular rooms north of the throne room in Area P have two rooms connected with a direct axis, but the room leading to them has an opening on a bent axis, leading to the throne room (Matthiae 2010: fig. 229).

Similarly, in the grand palace of Mari (Margueron 2004: fig. 437), rows of interconnected small rooms can be found to the east and west of the Court of Palms, as well as south of the throne room. Yet, unlike the situation at Kabri, none leads to a dead end, as they are all connected to large units or to courts.

In the palace of Alalakh VII (Woolley 1955: fig. 35), Rooms 19, 25, 29, and 33 form a series of long rooms adjacent to the eastern wall of the palace. However, none is fitted with orthostats, in contrast to the larger rooms of the north wing of the palace.

Examples of similar situations exist also in courtyard palaces of the Middle Bronze Age in Canaan. In Shechem Area VI Stratum XIX (Campbell 2002: Ill. 73), where Rooms 16, 17, and 18 are interconnected,

Room 18 opens also to the courtyard to the northwest, creating a bent axis. It is possible that similar situations may be found at other courtyard palaces, such as in Strata XII and XI of Area BB at Megiddo, and at the Tel Seraʿ edifice (Loud 1948: fig. 398–99; Kempinski 1989: 156; E. Oren 1992: fig. 7).

However, in both the Syrian and Canaanite examples, none of the small rooms adjacent to a courtyard or a large hall shows the architectural refinements seen in the Kabri structure—i.e., the combination of orthostats covering all of the walls and ashlar paving stones covering the entire floor of the back room. The closest we found elsewhere is the row of three to four interconnected rooms to the northwest and northeast of Palace I at Tell el-ʿAjjul, belonging to the MB II period (E. Oren 1992: fig. 6; Herzog 1997: 126–27). There, orthostats (without visible dowel holes) are used in the inner faces of at least three of the four small rooms along the eastern wing of Palace 1 (Petrie 1932: pls. 43 top image, 45; 1933: pl. 46); and a bath, with white plaster floor, and a sunken jar are reported from the corner room. Another possible parallel is the southeastern part of Raumgruppe E of the late Hyksos-period palace at Tell el-Dabʿa. There, a series of long and narrow storerooms is divided by inner antae into three parts (Bietak and Forstner-Müller 2009). However, the identification of the Kabri structure as a simple storeroom seems highly unlikely, given the fine plaster floor in the main room, paving stones in the back room, and orthostats throughout, as well as the lack of any fixture for pots or other storage facilities.

As for function, the linear arrangement terminating in a dead end in the Kabri structure—i.e., a back room—precludes the comparison and identification of the Kabri structure with other special-function rooms within the palace. These include throne rooms, gateways, and courtyards, which also boast fine plaster floors, orthostats, and paved thresholds but beyond that bear no resemblance to the Orthostat Building.

However, the overall shape and layout of the structure can be readily compared to the so-called Syrian temple or monumental symmetrical temples (following Mazar 1992: 166), or temples *in antis*. This temple form has its origins in Syria in the third millennium B.C. (Castel 2010) and became common in the southern Levant during the later part of the Middle Bronze Age (Mazar 1992: 166; Ilan 1995). This category encompasses a rather large variety of temples, all characterized by direct access (located along the long axis of the structure) and two antae in front of the temple. These may be simple protrusions of the walls of the temple, creating an open portico, although in the more developed cases, the antae become elaborate and frequently occur as two towers flanking the entrance to the structure. This latter variety was named the *Migdal* temple, influenced by the biblical tradition of the Migdal (tower) of Shechem (Judg 9:4, 46; Wright 1965: 80–95; Mazar 1968: 92–93; Campbell 2002: 145) and the actual find of a temple with two towers in Shechem.

The inner space of the monumental symmetrical temples is sometimes divided into two parts, the procella and cella, yet in many cases only a single internal space is maintained. The location of the holy of holies, and the focal point of the cult, was often marked by a niche in the inner side of the back wall of the temple, or by a bamah. The entrance is, in most cases, along the long axis of the building. Still, the cella may well be a broad room, as in the Alalakh Stratum VII temple (Woolley 1955: 59–65, fig. 35), Hazor Area H (Yadin et al. 1989: plans 37, 38), and Tell el-Dabʿa Area A/II Temple III (Bietak 2009: 214–15). However, the long-room cella of the Orthostat Building at Kabri connects it to a rather large group of "Syrian temples" with long-room cellas, among which are Tel Kitan, Megiddo Stratum X, and Ebla Temples P2, D, and M (Bonfil 1997: 89–97).

The Kabri structure, with its direct axis (and southeastern vestibule, large procella, and northwestern cella), fits the general outline of this architectural type. The fact that the Kabri structure was not a freestanding structure, but was rather built against the palace and had to adhere to its overall plan, may have limited its size, making it smaller than examples elsewhere of freestanding "Syrian temples." It is also possible that the same limitations resulted in it being narrower (i.e., in ratio between length and width) than the canonical "Syrian temples." However, besides the inner arrangement and its overall similarity to the "Syrian temples" discussed above, several specific points of similarity can be pinpointed between the Kabri structure and second-millennium temples elsewhere in the Near East, as well as to much later first-millennium temples found adjacent to palaces, including at Tell Tayinat in northern Syria.

In terms of the general long and narrow appearance of the structure, Shechem Building 7300 in Area IV may also be mentioned as a possible parallel for the Orthostat Building at Kabri. The Shechem building is a long-room temple structure, but it is not freestanding and is instead part of a series of rooms by the city gate

(Campbell 2002: 151–53, ills. 50, 54). The entrance to this three-room structure was from a colonnaded hall, considered to be part of a Middle Bronze Age palace. Special finds include three stone pommels of daggers, but little else is known about the finds from this structure, apart from the fact that there is a distinct absence of cultic finds. Thus, the identification of the structure as a temple rests mainly on its plan (Campbell 2002: 153). According to Mazar (1992: 165), the back room with the indirect access was used for storage, while the focus of the cult was the bamah, or altar, in the northeastern wall of the middle room. Campbell suggests that it may have served as a private chapel for the city's ruler, a situation similar to that of the temple by the palace of Alalakh Stratum VII (Campbell 2002: 153). We note that the back room of the Orthostat Building was clearly used for storage, at least in its final use phase, and that much of the interior of the main room has not yet been excavated (apart from the east–west strip across the middle of the room), so that it is conceivable that an altar will still be uncovered there.

Another example of a long-room temple with relatively narrow walls is Temple II in Area A/II at Tell el-Dabʿa, belonging to Phase E/3 and the MB II period. The early phase of Temple II included a long-room cella with a cultic podium and a back room, possibly a treasury or a storage place. Again, this inner arrangement is very similar to that of Building 7300 at Shechem and perhaps to the Orthostat Building at Kabri. At a later stage, a broad-room procella was added, transforming this structure from a direct-axis temple to one with a bent axis (Bietak 2009: 218).

THOUGHTS ON THE POSSIBLE FUNCTION AND CHRONOLOGY OF THE KABRI ORTHOSTAT BUILDING

Overall, the combination of a long axis, the use of orthostats and ashlar paving stones in the inner rooms, and the location of the building itself, built as it is against the outer wall of the palace, provides important hints on the possible use and function of the Orthostat Building. For one thing, the elaborate inner refinements indicate that these were not ordinary rooms within the palace, and certainly not ordinary storage rooms. Moreover, the long axis and single entrance indicate that this cannot simply be a reception hall or a throne room. Rather, this seems to be an independent unit, separate in access and in function from the rest of the palace, and especially from the nearby wing of Ceremonial Hall 611 and Room 740.

The architectural similarity to Syrian temples in both general outline and in the use of orthostats and paving stones does exist, of course, but the identification of the Kabri structure as a temple cannot easily be made at the moment, lacking as it does any cultic objects, votives, or iconography. The vivid discussion regarding the function of the Late Bronze "Black Building" in the upper city of Hazor—i.e., whether it served as a "ceremonial palace" or as a temple—shows that even when iconography, cultic objects, and tablets are found, similar architectural features as well as similar inner furnishing of palaces and temples may sometimes prevent a clear-cut identification (Bonfil and Zarzecki-Peleg 2007; Zuckerman 2010).

In fact, any identification of the Kabri Orthostat Building as cultic in nature rests, at the moment, primarily on architectural parallels, just like Shechem Building 7300. The clean appearance of the structure, without cultic imagery or cultic installations so far, does not allow one to use the criteria of mobile finds and cultic symbolism (e.g., those of Renfrew 1985: 19–20) to identify the place as a cult site. On the other hand, other features of the building do meet criteria for the identification of a cultic place (Renfrew 1985: 19–20), including the very fine quality of the construction, making this a "special" structure set aside for a specific purpose, one that manifests conspicuous public display. In addition, the paved area in the back room might have served as a focal point, a feature common to most cult places. Finally, the absolute cleanliness of the floor of the main room of the building—largely devoid of pottery, bone, and other common detritus—brings to mind concepts of hygiene, purity, and the avoidance of pollution common to cult places. Admittedly, these latter attributes are not unique to cultic structures, for they can also be found in palaces.

While the Orthostat Building may well have served as a temple, the ceramic and zooarchaeological evidence suggests the possibility of a different option as well. It is possible that the structure was used for exclusive feasts, i.e., that it was a *bet marzeh* or feasting hall (cf. Bietak's 2003 study of the possible *bet marzeh* in the Fosse Temple at Lachish). This suggestion is presented only tentatively at the moment, as it is based primarily on a very small number of left-sided sheep and goat forequarters and hindquarters. The storage jars might have contained some liquid that was consumed during the feasting events, but one may well ask, where are the remnants of the drinking cups and

other utensils that would also have been used? They may be scattered within, or more likely around, the building, but they have yet to be identified, so this interpretation must remain tenuous, however intriguing.

It is clear that the principal activity area in this building was the central room (2372), as indicated by the extensive trampling of the bones that were in this space. Despite the fact that evidence from animal bones shows that the back room (2411) was less frequented, the fine paved and plastered floor of this room must indicate that it was originally the principal (ceremonial? religious?) focus of the Orthostat Building. The ceramic finds show, though, that at least in the final phase of the building, this back room, however fancy its plastered floor and orthostat-lined walls, was ultimately relegated to storage. Whatever function it had once proudly provided, in the last period of use it served only to house a small number of storage jars, the liquid contents of which were probably used in the activities still conducted in the central room.

The zooarchaeological finds suggest that activities in the structure also included the consumption of meat. Despite the small sample, it may be argued that the patterns of consumption of meat in the structure, and perhaps around it, do not conform to consumption by priests but rather by lay elite.

The scale of these activities is also highly telling. Despite the large energy expenditure reflected in the construction of the building, the limited space within the main room allowed only a handful of people to be involved in the liquid and meat consumption activities conducted within it. Thus, these hypothesized feasting activities may be defined as exclusive and high status in nature. This contrasts strongly with the patterns of activities in the nearby Ceremonial Hall 611 which, with its painted floor, three double-door entrances, and floor area of over 100 m^2, was no doubt an important formal and official location within the palace.

Interestingly, it seems clear that feasting, or at least ceremonies involving the consumption of alcohol, also occurred in this Ceremonial Hall 611 within the palace, for a large Chocolate-on-White amphora was found in the northwestern part of the room (Kempinski, Gershuny, and Scheftelowitz 2002: 116). A sherd from the same vessel, long missing from the original, was found by our expedition in 2009 and analyzed by Andrew Koh of Brandeis University (personal communication 2011). The results of the residue analysis indicate that the vessel contained red wine, perhaps imbibed during feasts or other high-level ceremonies held in the hall for a much larger number of participants than could ever have been accommodated in the main room of the Orthostat Building.

This phenomenon of "banqueting hierarchy," which serves the palatial politics of multiple layers of inclusion and exclusion, is known also from the Mycenaean palace at Pylos (Bendall 2004). The need to create alliances and rally the support of other elite members (Hayden's "political support feasts"; cf. Hayden 2001: 37–38) is best served by creating an exclusive feast, in which the access to material wealth and political power is limited to the small number of elite participants. Larger and more inclusive feasts will answer the additional need to create cooperative in-group relationships (Hayden's "solidarity feasts"; cf. Hayden 2001: 37–38; also Joffe 1998: 306; and cf. Yasur-Landau 2003–2004 for such feasts in Crete). These enabled large parts of the population an opportunity to relate to the rulership. It is not clear which type of feasts, or ceremonies, took place in Ceremonial Hall 611, but it is clear from the size of the main room within the Orthostat Building that the feast there could not have been intended for the general populace of the polity of Kabri, but rather for carefully chosen groups of varying numbers of elite guests.

In sum, it is certainly possible to suggest an identification of the Kabri Orthostat Building as a temple. However, such identification is by no means conclusive, and the building could just as easily be identified as serving any number of other purposes, including storage (although this seems unlikely, given the elaborate and expensive architectural details). Most likely is that it served different purposes at different times, depending on the needs of the inhabitants, and that its use during the final phase may have been quite dissimilar to its original or intended function. Based on the zooarchaeological data, it is also conceivable—although admittedly tenuous at the moment—that the building was a place where some type of feasting for elites took place, i.e., a *bet marzeh*.

Although it is premature to suggest any definite identification at the moment, before we have completed excavation of the entire building and its surroundings, we already have most of the structure and are confident concerning the architecture and its chronology, as well as some supporting data from the bones. At the risk of tempting fate, it seems unlikely that additional excavation will change the current picture to any great extent, so we invite other scholars to weigh in with additional parallels and possible identifications at this point.

FINAL THOUGHTS: A MEDITERRANEAN ARCHITECTURE: SYRIAN, AEGEAN, AND INTERCHANGEABLE ELEMENTS IN THE PALACE OF KABRI

The Orthostat Building, with its elaborate interior design and features, was erected at the same time that other great architectural changes took place in the palace of Kabri, including the thickening of the palace walls (Cline and Yasur-Landau 2007). It is currently unknown why such changes were made; perhaps a disastrous event, such as an earthquake, had damaged the building, or perhaps a new ruler simply wished to make substantial renovations. Great care and energy were put into these renovations but also obscured the reasons why they were undertaken in the first place. These changes, although possibly merely functional, are also indicative of deliberate choices made by the palatial elite to demonstrate their power to the local population while at the same time attempting to follow the greater Mediterranean trends of their time.

The introduction of Syrian architectural traditions into the southern Levant did not occur during a single time period (Ilan 1995: 309–10) but rather was a gradual process. It was part of a more extensive cultural transmission of Syrian material culture traits spanning throughout the Middle Bronze Age, as can be seen from the partial list below:

1. The earliest elements, wheel-made pottery and tin bronze, were transmitted already in the earliest part of the MB I period, as seen in the Gesher and Hagoshrim cemeteries (Garfinkel and Cohen 2007).
2. Earthen ramparts of a clear Syrian ancestry were first built during the middle to later parts of MB I, including gates of a Syrian design in sites such as Ashkelon Phase 14 (Burke 2008: 237–39); Megiddo Stratum XIII (Loud 1948: fig. 378); and later at Dan during the MB I–II transition (Ilan 1995; Burke 2008: 252–53).
3. Syrian-style temple design seems to reach the area west of the Jordan, as well as east of the Jordan (e.g., Pella, Tell el-Hayyat), only during the MB II period (see above).
4. The use of cuneiform for writing administrative texts begins at the later part of MB II (Horowitz and Oshima 2006: 10–15).
5. Technological and stylistic innovations in palace and temple architecture, such as orthostats and ashlar stone paving of thresholds, begin to appear only during the later MB II period (see above).

Not all architectural forms and elements were, of course, equally common. But it is noteworthy that orthostats and paving stones are a rather rare feature in the Middle Bronze Age architectural landscape of the southern Levant (Hult 1983: 73–74). Even more, not all gates, temples, or palaces dated to this period have these refinements, which points to the special nature of the Orthostat Building at Kabri.

In an earlier article (Cline and Yasur-Landau 2007), we have argued that the Kabri rulership's repeated choice of Aegean art, reflected in up to four different wall and floor paintings, rather than choosing Syrian-inspired art, was a deliberate and calculated one. It was a manifestation of the rulers' will to demonstrate their connections with faraway areas, which other polities did not possess. At the same time, it shows their aspiration to belong to a more "cosmopolitan" Mediterranean narrative, as well as to prove their difference from the city-states to the north and east, such as Hazor, which were more aligned with a Mesopotamian narrative.

It may be argued now that other elements in the Kabri palace may be seen as belonging to a Mediterranean architectural language, created by the use of architectural refinements and decorative elements that would have been equally at home on either Crete or in the Syrian sphere. These include:

1. The painted imitation of gypsum ashlar on the painted fresco floor in Ceremonial Hall 611, which has parallels at Mari and Alalakh, as well as at Knossos and Akrotiri (Niemeier and Niemeier 2002: 259–62), would not have looked out of place in either Crete or Syria.
2. The same can be said for the ashlar floor and threshold paving, as well as the painted plaster covering the floor and thresholds, which can be shown to be either very common Minoan elements (Niemeier and Niemeier 2002: 262) or more rare Near Eastern elements as seen at sites such as Alalakh (Niemeier 1991).
3. The orthostats themselves would be at home in either the Aegean or in Syria, since orthostats were widely used in both areas during the Middle Bronze Age, especially in the construction of monumental buildings. The square dowel holes find closer parallels in the Aegean, but their incorporation into the architectural syntax, i.e., their use in the inner walls

of individual buildings, is most similar to the use in temples and palaces in Syria, such as at Ebla, Alalakh, Aleppo, Qatna, and Hazor.

Furthermore, entryways with inner recesses were found in the northern, eastern, and western entrances to Ceremonial Hall 611, as well as in the northern entrance to Room 603 (R. Oren 2002: figs. 4.57, 4.69). They were perhaps meant to hold double doors opening to the inside of the room, and indeed Niemeier (1995) reconstructed Ceremonial Hall 611 with pairs of double doors, despite the fact that no door sockets were found in any of them. These are very rare in the palaces of the southern Levant, yet commonly occur in Syrian palaces. Thus, for example, they are found already in the monumental gateway of Palace G at Ebla Level IIB1 (Matthiae 1980: fig. 11) and in Mari Ville II in the temple of Ninhursag and the temples Anonymes (Margueron 2004: figs. 224, 235–36). Later in the second millennium, this feature is also found at Qatna (Pfälzner 2007: 34), Mari (Margueron 2004: figs. 265, 267–68, 437, 455, 465), and Alalakh (Woolley 1955: fig. 36).

To the rulers of Kabri, as well as to our discussion here, the question of the origin of these forms—whether Syrian or Aegean—and the heated discussions on the possible direction of cultural influence (Palyvou 2007: 44) are secondary to the fact that these features are contemporaneously used in both areas during the later part of the Middle Bronze Age in Syria and the Levant and the palatial era in Crete and the Cycladic islands. Thus, while these elements cannot by themselves define a "koine" or a discrete "international style," they nonetheless are part of the architectural vocabulary of both the Aegean and Syria. In this respect, they may be gathered under Palyvou's more neutral definition of "transcultural integrated elements," used for elements occurring both at Ugarit and in the Aegean area (Palyvou 2007: 44).

The choice of these elements for the later phases of the palace of Kabri was by no means accidental. Rather, it reflects a conscious effort to create and to provide an impressive setting and a landscape of meaning (Yasur-Landau 2008), one which, on the one hand, borrows from the other cultures with which it interacts and, on the other hand, creates a unique Canaanite architecture. In fact, it has already been pointed out that, in this period, the wide acceptance of innovations by Canaanite society reflects a conscious, perhaps even strategic, decision (Uziel 2011).

For Aegean, Syrian, and Canaanite visitors, the experience of visiting the palace of Kabri, whose architectural and decorative plans look both east and west, was certainly a complex one, for it would have involved seeing something both familiar and foreign at the same time. In contrast to the international architectural refinements, however, the behavioral practices of drinking and eating, as reflected in the pottery assemblage from the palace, were conducted using local pottery types almost exclusively. Most notably, the use of the magnificent Chocolate-on-White amphorae found in Ceremonial Hall 611 to dispense red wine during feasts (Koh, personal communication) and the palatial use of "Kabri-style" goblets (Yasur-Landau, Cline, and Samet 2011) are a constant reminder of the prevalent Canaanite culture which was maintained by the palatial elite at the site.

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