

## Preliminary Report on the Results of the 2013 Excavation Season at Tel Kabri

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*The 2013 excavations at Tel Kabri, the capital of a Middle Bronze Age Canaanite kingdom located in the western Galilee region of modern Israel, lasted from 23 June to 1 August 2013. Highlights of the season included the discovery of a complex composed of several rooms, located adjacent to the palace and the Orthostat Building in Area D-West, one of which was fully excavated and which turned out to be filled with nearly forty storage jars; additional fragments of painted wall plaster in Area D-South1; and an additional large hall and rooms with plaster floors belonging to the palace in Area D-West East, creating a 75-meter-long continuum of uninterrupted monumental architecture.*



Fig. 1. Team members from the first session  
(23 June – 11 July 2013) at Tel Kabri

The 2013 excavation season at Tel Kabri in Israel was co-directed by Assaf Yasur-Landau of the University of Haifa and Eric H. Cline of The George Washington University, with Andrew Koh of Brandeis University as Associate Director. It was undertaken with grants from National Geographic, the Israel Science Foundation (ISF), Bronfman Philanthropies, and the Institute for Aegean Prehistory (INSTAP), with

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additional funding provided by the Columbian College of Arts and Sciences at The George Washington University as well as private donors, including William and Rebecca Sanders, Joshua Eisen, William and Melinda Becker, and BASONOVA. Assistance in conservation and storage was provided by the Leon Recanati Institute for Maritime Studies, directed by Professor Michal Artzy. We are most grateful to all of these institutions and people.

Senior staff members included Area Supervisors Nurith Goshen (University of Pennsylvania), Alexandra Ratzlaff (Boston University), and Inbal Samet (University of Haifa), with Assistant Area Supervisors Kyle Leonard, Dan Devery, and Catherine (Davie) Davie; Ehud (Udi) Arkin served as Administrator of the expedition. Conservation work and pottery restoration are being conducted by JJ Gottlieb and Roe Shafir (University of Haifa).

Personnel conducting scientific analyses include residue analysis by Andrew Koh (Brandeis University), radiocarbon dating by Felix Höflmayer (German Archaeological Institute in Berlin), geoarchaeology by Ruth Shahack-Gross (The Weizmann Institute), petrography by David Ben-Shlomo (Hebrew University of Jerusalem), stable isotope analysis by Gideon Hartman (University of Connecticut), zooarchaeology by Guy Bar-Oz and Nimrod Marom (Haifa University), and microfauna by Lior Weissbrod (Haifa University). Results from these analyses will hopefully be forthcoming in the immediate future. LIDAR was conducted by Drakkar, Ltd. Surveying.

The international team of some 60 people included volunteers and staff from the United States, Israel, England, Canada, the Netherlands, and Australia (Fig. 1); participating students came primarily from the three consortium schools -- The George Washington University, Brandeis University, and the University of Haifa -- but others are currently enrolled at the University of Florida, Boston University, Indiana University, and elsewhere. During the excavation season, the team was housed and fed at the Western Galilee Field School, in Achziv; we are most grateful to the staff of the field school for their hospitality and many kindnesses.

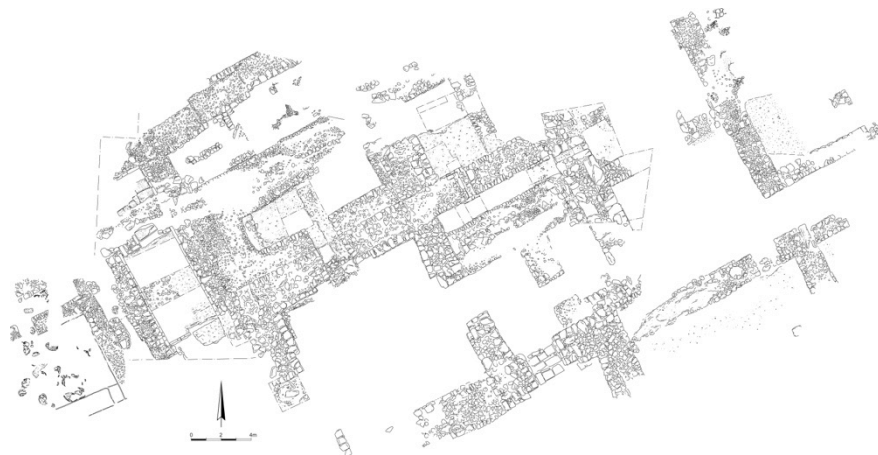


Fig. 2. Plan of Areas D-West and D-West East

### Excavation Results

During the 2013 season, our efforts were concentrated in three main areas: 1) Area D-West; 2) Area D-South1 (DS-1); and 3) Area D-West East (DWE).

#### *D-West*

The excavations in Area D-West during the 2013 season concentrated on the area located immediately adjacent to and west of the Orthostat Building (that had been uncovered during the 2011 season), aiming to locate the western edge of the palace and the interface between the palace and the rest of the site. Instead, we encountered the remains of a palatial storage complex located in this western area.



Fig. 3. Plan of northern storage room in Area D-West, with entrances from northwest and southeast

The storage complex had at least two rooms. The northern room had an entrance from the northwest, which consisted of four walls (piers) and two chambers. During this season, only the eastern chamber of the entranceway was excavated. It is bordered on the north by Wall 2446 and on the south by Wall 2443, which created the chamber measuring c. 3m x 1.5m. The surface of this chamber, a possible beaten earth surface, was covered with the remains of at least four restorable storage jars; below these, a cross-wall belonging to an earlier phase can be seen. The actual entrance into the northern storage room from this direction is between Walls 2443 and 2455, through Threshold 2478,

which is only 92 cm wide. The threshold is made of field stones, which we found covered with restorable vessels which partially blocked the entrance by falling into it from adjacent rooms, indicating that the entrance went out of use immediately after their deposition (otherwise the vessels would have been cleaned up and removed by the inhabitants).

This northern storage room was almost fully excavated this season (2475). It had an excavated inner dimension of c. 5m x 6.7m. It has a white plaster floor and mudbrick walls that were also almost all plastered, with the line of the plaster preserved and visible as high as the top of the mudbricks that were preserved on the stone foundations of the walls. On the floor (L2440) were the remains of nearly 40 restorable large, mostly handle-less, Canaanite storage jars, which were found covered by a thick collapse of mudbricks containing much calcareous material. Collapsed mudbricks of this type can be seen, for example, in the northwestern balk of the room.

The jars in this room show no uniform orientation, but lay where they fell in various directions. All are resting on the floor, with the exception of one which is sunken into the floor (see below). Samples for residue analysis were taken from almost all of the vessels; we are currently awaiting the results.

In addition to the handle-less storage jars, other vessels included a smaller storage jar with two handles, a goblet (“Kabri cup”), and parts of a jug and a dipper juglet. At least three different types of rims can be seen on the various storage jars, some of which have parallels in the nearby, and contemporary, Orthostat Building. This is the largest concentration to date of restorable pottery found anywhere in the palace of Kabri and the only place on site where we have found an entire room still full of artifacts.



Fig. 4a-b. Northern storage room in Area D-West

A single storage jar was sunken into the floor, almost at the center of the room, opposite Threshold 2478. It formed part of an installation which consisted of at least two jars: the one that was sunken into the plaster floor and part of another which consisted only of a portion of the body (minus its neck and rim), rising nearly a half-meter above the surface of the floor. Storage jars were similarly sunken into other rooms within the palace, as in the center of Ceremonial Hall 611, in Courtyard 703, and in Room 690.



The floor itself exhibits severe warping and a sharp rise (and accompanying higher area) running across the room near its southern end from northwest to southeast. This matches a similar rise and a higher floor level in the southern part of the main room within the Orthostat Building just to the east, as noted during the 2011 season. It now seems possible that there is a wide wall from an earlier phase of the palace lying underneath this higher area and that the rest of the floor area in these rooms has sunk/subsided (much as underlying walls can frequently be seen as “crop marks” in agricultural fields). Though no evidence of such a wall has yet been found in the section cut to the west of Room 2462/2473, it is of interest to note that the line of this rise in both the northern storeroom and the Orthostat Building matches the original line of the northern face of Wall 660 of Ceremonial Hall 611 and Wall 679 of the “Corridor,” before they were expanded during the renovation of the palace. It may be that it is the original wall of the palace that runs beneath the storeroom and the Orthostat Building, thus contributing to this rise in the southern parts of these rooms.

However, there is also additional evidence for possible ground movement in this room, including the warping of Wall 2441 (the eastern wall of the room, running from southeast to northwest). Similarly, the foundation of Wall 2443, which is the northern wall of the main room, also undulates to an extent and is higher than the foundation of Wall 2446 (which forms the other wall of the chamber to the north of the main room and which appears to be a bit sunken). This may all be due to some tectonic activity in the area.

In addition, a southeastern entrance to the northern storage room, also ca. 92 cm wide, is between Walls 2441 and 2450. This connects the excavated storage room with another, as yet largely unexcavated, storage room (2462/2473) located directly to the south, in which the remains of at least six additional storage jars have already been found; these were excavated and removed at the end of the season, since they would not have survived the winter. The floor of this entrance was also covered with broken pottery, which had fallen from the southern room into the threshold and thereby partially blocked the entrance (which would not have been used thereafter, otherwise the vessels would have been cleaned up and removed).



Fig. 5a-b. Jar in D-West at Tel Kabri (left);  
sampling for residue analysis by Andrew Koh (right)

Although the highest jars in the northern storage room first became visible during the second day of excavation, the majority was exposed during the third week. At that time it was decided that our efforts needed to be concentrated in this area if we were to successfully excavate and remove the jars before the end of the excavation season. Since the room could not accommodate all of the team members excavating at once, we adopted an unorthodox daily schedule, in which half of the team excavated from 5 am to noon each day with the other half of the team excavating from 1 pm to 7 pm. Those who were on the AM shift then spent the afternoon processing the finds as per normal (pottery washing and reading; flotation; bone sorting), while those on the PM shift did the same thing in the morning. In this way, nobody worked longer than normal, but we were able to get in more hours of excavation and processing than could otherwise have been done. We were therefore not only able to excavate the jars in an orderly fashion, but also to take samples for residue analysis and petrography, as well as soil samples for wetsieving for zooarchaeology and flotation for archaeobotanical remains from within each one as well as the matrix around them, and to record the entire room and its contents using LIDAR, before systematically removing each jars and its contents carefully.

Finally, during cleaning for final photographs at the end of the season, several fragments of red-painted wall plaster were found within the stones of the western wall of the Orthostat Building (Wall 2353). It is possible that an earlier structure in this area was had its walls covered with red-painted plaster, of which these fragments are the remnants, but this remains to be investigated in a future season.

#### *Area D-South1 (DS-1)*

Our excavations in Area DS-1 during the 2013 season focused on exposing the area immediately east of Building 3079, the building with fragments of painted plaster lying on its crushed limestone floor that we had excavated in 2009 and 2011. Here we hoped to find an additional building, or perhaps the beginnings of the rampart fortifications for the city.

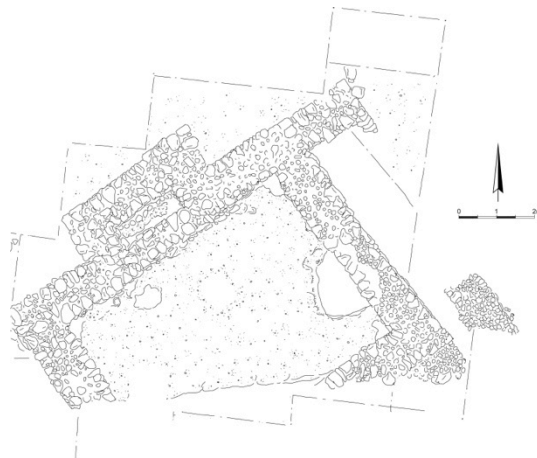


Fig. 6. Plan of Area DS-1, showing Building 3079 and the new wall stub to the east

A stub of a single wall was found just to the east of Building 3079, which measures ca. 1.1m in width. This wall was connected to a surface that can be seen in the section; it

may have been a retaining wall for a feature lying to the east.

The rest of the area proved to be covered with more than a meter of a heavy uniform lightish-colored brown clay which contained no pottery. This in turn covered a lower deposit, which may represent an accumulation on a probable surface, perhaps of a courtyard. This contained pottery sherds as well as a few fragments of painted wall plaster. Of these, one has red paint and an incised string line; another awaits detailed analysis, but may have either a small bird or a fragment of vegetation.

It may be hypothesized that the aceramic clay layer is related to a Phase III addition to the rampart protecting the city, located immediately to the east. If so, Building 3079 may have been adjacent to the rampart or even partially cut into it, as is the case with the Temple in Area C at Hazor. Alternatively, this clay fill may have fulfilled a different function altogether; this will be clarified in a future season, when we continue work in this area.



Fig. 7a-b. Two fragments of painted wall plaster; one with red paint and string line (left); the other awaits analysis (right)

#### *Area D-West East (DWE)*

Our excavations in D-WE during the 2013 season had multiple goals, including linking our 2005 excavation area in D-North with the easternmost part of Kempinski and Niemeier's excavations in what was their Area D within the palatial area. We also wished to further explore the rooms surrounding Courtyard 703, which was excavated by their previous team. Excavation in this area was also intended to yield a complete assemblage from a secured context within a single room.

Most of our efforts were dedicated to excavating Room 1434, of which Kempinski had previously revealed only its southwestern corner bounded by Walls 762 and 780. We continued excavating this room to the north and east. It was found to be a very large hall or courtyard with at least two entrances, with a minimum extent of 12m x ca. 12m. However, it is very likely that it was much larger in size, perhaps even double (24m x 24m). Of the entrances, one is from the west and the other from the south. The western entrance is off-set rather than being aligned with the central axis of the room; it is not yet clear whether the southern entrance is also off-set.

The western wall of the room, Wall 762, extends for 13.5m, running north-south, and is 1.7-1.8m thick. Threshold 799 is located within the wall, close to its southern end, and connects to Courtyard 703. Robber Trench 4031 cuts the wall in the north and probably also robbed out the northern closing wall (running east-west) of the room. Another large Robber's Trench extended across the exposed W4020, robbing out most of the field stones belonging to the wall.



Fig. 8. Plan of Area DWE, showing a portion of Room 1434

Wall 780, which currently extends for 10.5m until reaching an entrance, borders the room on the south. It is anticipated that the wall will continue again on the other side of the entrance, but we have not yet excavated this area. It is thinner than the other walls and is 1.2-1.3m wide.

There are several superimposed plaster floors found in this room, but they exist only in parts of it due to later disturbances. All of the floors were buried under thick mudbrick collapse that included much calcareous inclusions. The latest floor level is L4053/L4058 in the southern part of the room, while in the northern part of the room Floor 4073/4076 contained an installation (L4071) that included parts of a ceramic andiron as well as bones, sherds of pottery, and a small supporting wall (4060). This may have been some form of fire installation, perhaps a hearth.

Underneath the latest floor level in the northern part of the room, earlier plaster floor 4090 as well as an adjacent paved area composed of flat-lying pottery sherds (L4096) were found, possibly related to an earlier renovation stage within Phase DW III. Underneath them, within a probe, a large amount of pottery was found, possibly relating to a rich deposit of pottery belonging to Phase IV of the palace that has yet to be excavated in this area.

The latest plaster floor (L4097) in the eastern part of the room is at the same level as the floor in the adjacent Square 41 of Area D-North, excavated in 2005, thus indicating that they belong to the same floor and form an architectural continuation between Area D-



North and Area D-WE. It is very likely that they both belong to Room 1434, which continues to the east.

An additional wall, W4080, running north-south just to the north of southern Wall 780, is a possible later partition wall added within the hall, like those found elsewhere separating Rooms 607 and 667 in Kempinski's Phase 3c, and would have served to subdivide what had originally been a much larger room. Restorable pottery from more than one vessel, possibly large jugs or storage jars, were found on the floor adjacent to this wall in several locations.



Fig. 9. Room 1434 and Wall 762, looking north (left) and east (right)

In addition, we began to explore Room 1415, which is located to the west of Room 1434 and to the north of Courtyard 703. Kempinski originally excavated its entrance, but the rest of the room still remained to be excavated. The southern boundary is Wall 1414 and the western boundary is Wall 1417. We have discovered that Wall 4020 forms the eastern boundary and Wall 4050 forms the northern boundary. Thus, the room has a dimension of 2.10m (east-west) x 4.5m (north-south). It may be that this room is contemporaneous with Room 703 and predates Room 1434.

There is only one entrance into this room, leading north from Courtyard 703. We have reached heavy collapse that covered the room. Although we have not yet uncovered much of the actual floor, its edge has been uncovered in Square 6; it is clearly a plaster/crushed limestone floor. It also seems that the threshold into the room was covered with plaster at some point. Interestingly, the corner between Wall 4020 and Wall 4050 contains reddish-orange material that may indicate a partial conflagration in this area, either resulting from the presence of an unexcavated fire installation or from a fire concurrent with the destruction of this room. Evidence of another fire installation exists west of Wall 1417, in Square 5.

## Conclusions

In this season, we have created an architectural continuum of ca. 75m in length within the palace, along its northeast-southwest axis, extending from Area D-North excavated in 2005 at the northeast to the westernmost part of Area D-West excavated this year. The projected extent of the palace may be between 5,000 and 6,000 square meters. It is possible that the five-meter-thick wall excavated by Shalem in 2001 (see previous reports) is the eastern exterior wall of the palace, but this remains to be confirmed.



Fig. 10. Aerial photo of the palace at Tel Kabri; end of season, 2013

In addition, and perhaps most importantly this season, we have uncovered an area of magazines, which is not an area of public or ceremonial use, as seen elsewhere in the palace. This is the first time that such a storeroom with jars still present has been uncovered within an MB palace in Canaan and been made available for residue analysis as well as pottery provenance studies. It should allow us exciting insights into Canaanite palatial economy during the early-mid second millennium BCE.