

# GALILEE PREHISTORY PROJECT

## *Excavations at Horvat Duvshan*

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With the goal of achieving a broader understanding of the fifth millennium in the Galilee, the Galilee Prehistory Project (GPP) undertook investigations at Horvat Duvshan (H. Duvshan) during the summer of 2019. Identified as a Chalcolithic site by Stepansky (2012) during his pedestrian survey for the Rosh Pina map (18), H. Duvshan lies near the center of the Korazim Plateau. The Korazim Plateau is a volcanic plateau directly north of the Sea of Galilee, to the east of Mount Canaan and west of the Jordan River. Excavations at Horvat Duvshan were initiated to gain some perspective on cultural and economic variability in the eastern Galilee during the Chalcolithic period relative to other regions. The eastern Galilee is poorly documented for the period, despite surveys that have identified Chalcolithic settlements across the region. New excavations at H. Duvshan complement previous GPP research at the western Galilee site of Har ha-Sha'avi (Marj Rabba), providing a roughly contemporaneous site in eastern Galilee. Prehistoric sites in the western Galilee are typically poorly preserved, presumably due to the wet environment and the acidic, basaltic soils. Tel Nes, the subject of GPP research in 2017, is less than 2 km directly north of H. Duvshan, providing an additional nearby site for comparative analysis of the Chalcolithic in the Galilee.

TOP: Figure 1. Looking north up the Korazim Plateau over Horvat Duvshan. Note walls and structures visible on surface. BOTTOM: Figure 2. Orthophotograph of Horvat Duvshan with visible surface features (black) and GPP excavation squares (red) marked. The blue square is the excavation shade cloth.



Horvat Duvshan 2019  
Surface Visible Walls

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Stepansky's survey (2012) recognized visible structures on the surface, using scatters of sherds and lithics to date the site as potentially Chalcolithic. The complex palimpsest of structures, probably both historic and prehistoric, were evident in our initial aerial (drone) survey of the area (figs. 1 and 2). Smithline (2013), who conducted limited salvage excavations for the IAA in advance of new road construction, supported the existence of Chalcolithic occupation in the immediate area.

A grid was established using a prototype Reach RS2 multi-band RTK GNSS receiver manufactured by Emlid. GPP acted as a beta tester for Emlid for this hardware during the 2019 season using a preproduction model for staking out excavation squares, creating benchmark reference points, placing Ground Control Points (GCPs) for aerial survey georeferencing, and collecting point provenience data. Unit squares of 5.0 × 5.0 m were laid in on a grid, though in some cases only one-half or one-quarter of the square was opened. Our initial squares, AL22 and AJ19, were 5.0 × 5.0 m squares placed where surface density of Chalcolithic material seemed high, with an additional 2.5





× 2.5 subsquare, AL23, opened subsequently. Additional squares opened were AS18 (5 × 6 m), AS 19 and AS20 (2.5 × 5 m), AJ17 (2.5 × 5.0 m) and AJ8 (2.5 × 5.0 m) for a total opened area of 131.25 sq m (fig. 3). These were excavated to variable depths, of course, from extremely shallow to nearly 1 m.

Excavations were conducted from July 11 to August 8, 2019, with a small crew of students, volunteers, and staff. Staff members included Yorke Rowan and Morag Kersel (directors), Austin Chad Hill (field director, surveyor), Max Price (faunal specialist, area supervisor), Blair Heidkamp (area supervisor), and six students, two from the University of Chicago (Julian Thibeaux, Jennifer Feng) and four from M.I.T. (Ruth Tweedy, Mollie Kaplan, Mollie Wilkinson, Lucas Arthur).

## AJ19

Our first square was AJ19, selected based on a concentration of Chalcolithic sherds on the ground surface (fig. 4). Our procedure for each square was similar to that of AJ19: initial clearance of vegetation and roots followed by more aggressive excavation with picks and hoes to remove topsoil in some of the toughest hard-packed soil we have encountered thus far in the Galilee. Excavation across the square continued until a thick layer of rocks, apparently following the slope from north to south, was exposed across the square. These rocks were left in situ, and the southern half of the square was excavated further. Excavation was eventually abandoned in this square because no intact features were identified, but additional excavation removing some of the rocks may be necessary in the future to establish with certainty that there are no walls or features below the rubble. Most artifacts recovered were Chalcolithic vessel sherds, the majority worn and eroded. Although flint artifacts were also recovered, few tools were recognized in the field (analysis is currently underway).



OPPOSITE: Figure 3. Orthophotographic map showing location of squares and grid established at Horvat Duvshan.

TOP: Figure 4. Looking south over the Korazim Plateau, Sea of Galilee in the background. Initial opening 5 × 5 m squares, AJ19 is in the foreground and AL22 in background.

BOTTOM: Figure 5. Chipped stone tool and Chalcolithic vessel handle directly below W101.



Figure 6. Large Chalcolithic sherds in deeper section of cobbles, square AJ17.

### AL22, AL23

To the southeast of AJ19, square AL22 was a 5 × 5 m square, the furthest south and downslope of those opened at Horvat Duvshan (fig. 4). From the surface, an alignment of large cobbles was visible, indicating a possible wall. Upon clearing the brush and roots of AL22, we began excavating the topsoil across the entire 5 × 5 m square. We soon realized that we had hit bedrock at the northern end of the square after less than 10 cm of topsoil removal. We then decided to split the square in half along the north–south axis and focused our efforts on the western half (2.5 × 5 m) of the square, which contained the stone alignment determined to be a section of wall (W101). The wall is a single course sitting on bedrock, with some chinking stones in place to support the larger stones. In order to follow the wall a quarter square, AL23 (2.5 × 2.5 m) was opened to the south. Topsoil removal in AL23 also continued to come down directly onto bedrock after a few centimeters. The line of the wall ends in this sub-square with no indication that it continues or turns a corner. On the west side of the wall is a dip in the bedrock, and the topsoil deposit is approximately 20 cm deeper than on the east side of the wall in AL23. There is a possibility that the bedrock was cut to form a trench for the wall to be constructed. A consistent amount of lithic debitage and Chalcolithic ceramic sherds were found throughout the context. Under one of the larger wall stones was a retouched blade and Chalcolithic ceramic handle fragment (fig. 5), indicating that the wall fragment is also Chalcolithic. Due to the limited depth of deposit and discontinuation of the wall fragment, we decided to move to another square within area AA after coming down to bedrock throughout AL22 and AL23.



Figure 7. Wall 177 in square AJ8, looking north. Note line of rocks on west face of wall, possible additional feature or interior wall.

## AJ17

The square location is on the flat terrace north of AJ19 with no visible alignments or features on the surface. A concentration of larger Chalcolithic sherds found on the surface, and the likelihood of deeper soil depth in the terrace, were the reasons for the placement of this square. The edge of the terrace is 1.5 m south of the southern baulk of AJ17. After removal of brush and roots, we removed topsoil with large tools in 5–10 cm spits across the square. We came down upon small- and medium-sized cobbles in the south half of the square about 40 cm down. At that point, we split the contexts between the continuing topsoil in the northern part of the square and the stone layer in the southern part of the square. We focused first on the removal of the topsoil in the northern section with the understanding that the topsoil would have been filled in after the rocks were in place. Continuing to take the topsoil down in 5–10 cm spits, more of the stone layer appeared, and the end of the topsoil was 1 m down in the very north end of the square. The undulating stone layer was then worked on by taking the highest layers of rocks out. An alignment of stones started to emerge—of two rows of medium to large cobbles that were interpreted as a wall (W153). We continued to work on either side of the wall, finding many Chalcolithic sherds and lithic tools and debitage within the stone layer (fig. 6). In order to focus on the wall, we split the square in half and focused on the south 2.5 m × 2.5 m section of the square. On the north side of the wall, we excavate beneath the course of stones interpreted as a wall and did not see another course below. With limited remaining time, and no clear continuity of Chalcolithic features, we closed the square to investigate another part of the site.

## AJ8

This square was the northernmost and farthest uphill of the squares excavated in 2019. From the surface (and aerial imagery), a roughly rectilinear alignment of walls was apparent and prompted the selection of this square for excavation. The square was placed to follow one of the long walls of what seems like a structure or room. After the initial brush and root removal, the line of the wall was even clearer (fig. 7). The square was then divided into three loci. West of the wall line, the likely interior of the rectangular structure was designated L. 176. The wall was identified as W177, and east of the wall was identified as L. 178. Removal of topsoil to the west of the wall revealed another stone alignment comprising medium/large cobbles positioned in a curved line (L. 179). The alignment looks as though it could connect with some other visible stones outside of the square. The alignment was determined to be left in place in anticipation of opening the adjacent square in a future season and investigating the feature as a whole. Additionally, in the southern end of L. 176, the end of a small wall made of two rows of small and medium cobbles emerged (W180). The wall seems to continue to the west outside of the square and may be an interior dividing wall within the larger rectangular building/room. To the east of the W177, the topsoil was removed in 5–10 cm spits and eventually came down on a layer of small cobbles approximately 30 cm beneath the surface. Three medium-sized boulders were also located east of W177 with no apparent alignment. The boulders are likely tumble from uphill. Wall W177 comprises a line of small boulders forming the east face and medium/large cobbles forming the west, likely interior, face. Due to the season's end, we were not able to investigate fully below the top course of the wall. In a future season, we would expect to reopen this square, along with adjacent squares, to gain a better understanding of the architecture and related features.



Figure. 8. Initial opening of square after clearance of vegetation around Chalcolithic building.

## AS18, AS19, AS20

The excavation of trenches AS18, AS19, and AS20 at Horvat Duvshan was conducted between July 16 and August 7, 2019. The squares were laid out on a N-S grid guided by architectural features that were visible from the surface and in the aerial images (fig. 8). Excavations revealed these features to be walls, likely domestic in nature, of a fairly sizable building (ca. 10 × 5 m) that was broadly comparable to a single segment of a “chain building” typical of the Golan Chalcolithic (Epstein 1998). Virtually all of the ceramics were Chalcolithic. However, the lack of any organic finds despite careful excavation and sieving with 5 mm mesh of all non-surface loci prevents a more precise chronological determination.

Excavation began with plant clearance and removal of a thin layer of topsoil, first in the 5 × 5 m AS19, and later expanded to the 5 × 2.5 m AS20 to the south of AS19 and to the 5 × 2.5 m AS18 to the north. Time constraints limited the amount of excavation in these subsquares, with only 1–2 cm removed at most. However, a single red bead was found in this initial clearance.

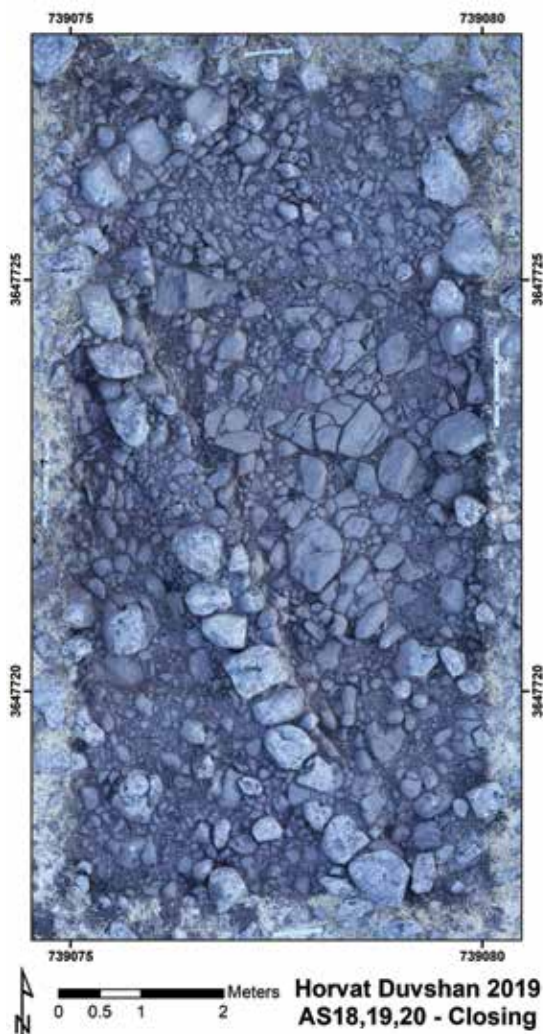
## WALLS AND THE CHALCOLITHIC BUILDING

Visible from the surface of trenches AS19 and AS20 was a long wall circa 10 m in length running SE–NW. This was labeled W052 and was made of very large cobbles (sometimes almost 1 m in length) as well as medium-sized cobbles, which appear to have been placed on the interior edges of the wall to flatten its face. Still, the face of the wall was not very flat and in places was quite uneven. None of the stones appeared faced or chipped. The walls measured around 70 cm thick, and each had only one preserved course.

Joining the main wall W052 at ninety-degree angles and running eastward were two walls to its north and south: in AS20 was W203 and in AS18 was W228. Both had the same basic structure as W052—large cobbles with medium-sized cobbles toward the interior surface. Each ran for about 5 m. W228 appeared to have been disturbed; a large cobble appeared to be missing (or perhaps a doorway, similar to 060 (see below)). Although we did not expose their eastern ends, their termination was clear from the surface.

We were also able to expose a small portion of W229, which ran parallel to W052 and was found just in the northeast corner of AS18—but we only exposed about 1 m of this wall (although it was visible from the surface). Thus, the walls defined a building about 10 × 5 m in

Figure 9. L.060, a gap in W052, probably the entrance to the building interior.



dimension and allowed us to excavate intramural and extramural contexts. There were no immediate differences apparent between these groups of loci—and sherds mostly appeared to be heavily rounded and thus tertiary in deposition—but specialist research might want to consider this spatial division.

In some places, the walls appeared to be only one (massive) stone in thickness. In other places, the wall was two stones thick. Again, medium cobbles appear to have been placed only on the interior of the wall. Both walls were only preserved to one or two courses in height, and they were built directly on large layers of basalt boulders and pumice. In some places, fill may have been used to level the ground for the construction of the wall. The clearest example of this was as a pack of small cobbles (thumb- to fist-sized) running underneath W203.

Wall W052 may have had an entrance at roughly the midpoint in trench AS19 (fig. 9). The bottom of this entrance, if indeed it was one, was labeled, but not excavated, as Locus 060, and consisted of medium-sized cobbles blocking up the entrance. Alternatively, the wall simply may have been disturbed post-abandonment. If this were the entrance, the building would have been entered from its western side.

## POSSIBLE WALL FEATURES

Several features (or possible features) were associated with W052. The highest one, stratigraphically and absolutely, was a rectangular arrangement of stones lying close to the surface. There were very few artifacts from this feature, and it may well have been an ephemeral arrangement of stones. However, the stones were rectilinear, and the arrangement was up against W052, as one would expect from a bin or storage feature. Visible in section within AS18, but not excavated in 2019, was a large circa 30 × 5 cm rectangular stone that may have been culturally modified. Also found up against the wall at around this elevation was a Chalcolithic basalt stand fragment.

Below L.057 was another feature, somewhat more convincing, although still potentially non-cultural in origin: L.058, a circular arrangement of medium-sized cobbles roughly 40–50 cm in diameter. It may have been built into the wall just above the bedrock and near the hypothesized entrance. However, L.058 might also be a natural feature, as there were several occasions when the excavators encountered circular arrangements of medium cobbles (they might be related to tree growth, or they may be random). A similar circular arrangement of medium-sized cobbles was found just to the south of the doorway. Nothing was found in this feature except for some pottery sherds and chipped stone in roughly the same density as seen elsewhere up on the bedrock. The same was true for the other circular “feature” to its south.

The most convincing feature in proximity/association with W052 were three flat stones articulated together and lying near the entrance in the middle of W052 in square AS20. Also near the wall were a good number of small and medium-sized sherds, some lying flat and directly on the bedrock and clustered near the edge of the wall throughout AS19 and AS20.

Beneath the topsoil, in both the intra- and extramural contexts, all of the deposits were characterized by dark brown clay with basalt pebble inclusions—quite compact and difficult to excavate—and a high proportion of medium and large cobbles, which consisted of either wall fall, slope wash, or (most likely) a mixture of the two. Thus, these deposits were stratigraphically later than the walls, although it is important to note that the relationship was not always clear, especially since the rocky rubble continued below the bottoms of the walls in some places. Additionally, excavators identified sizable rodent disturbances in many places across the units, especially near and within the walls.

Square AS20, which was opened on July 25, was divided into L. 202, west of W052, and L. 201, east of it. Both loci consisted of compact clay and many small, medium, and large cobbles. W203 ran along the SE edge of the trench, and we did not excavate south of it.



Finally, in AS18, L. 226 (intramural) was south of W228 and 227 (extramural) was north of it. AS18 had a steep slope running north to south, but nevertheless these were basically the same deposits as described above—rocky rubble and dark brown clay. In fact, there was no detectable difference in soil composition, inclusions, or cobble density between the extra- and intramural deposits. Locus 227, however, was higher up and was close to an extant terrace wall. We excavated through what was likely collapse from this terrace wall, stopping and closing 227 once we'd exposed a few centimeters of the northern face of W228.

Finds in these deposits in AS18 included basalt ground stone fragments and increased quantities of pottery sherds and lithics. Finds density, though, remained generally low, although this increased as we got closer to the bedrock. Fill in this area was apparently a mixture of collapse off the walls as well as wash and stones deposited from upslope. Many sherds were significantly rounded, and lithic artifacts were mostly broken into small pieces, suggesting re-deposition. Other larger lithic artifacts suggested secondary deposition. The high volume of stones in the fill of all contexts could suggest that the architecture was made entirely of stone as opposed to mudbrick, although we cannot determine that with any accuracy.

As we excavated into this rocky rubble layer, the sediment became redder in places, especially in the intramural areas. This transition usually occurred gradually, with pockets of the more friable reddish clay mixed into the natural dark brown/black basaltic sediment. Locus 056 was an area around 1 × 2 m of friable reddish clay on top of bedrock that persisted to a depth of around 10 cm. This reddish clay is almost certainly anthropogenic in nature and lay near the floor of the interior of the structure enclosed on its west by W052 and sandwiched between a layer of natural bedrock and cobble rubble below and another layer of cobble rubble fill above. This may have been part of a prepared surface for the floor of the building, but at the moment we remain uncertain about this hypothesis.

In general, material culture was low in AS18–20, as it was at Horvat Duvshan in general. However, we did find a red bead near the surface in L. 051 and a fragment of a basalt fenestrated stand (B. 1123, L. 053) in situ near wall W052 (fig. 10).



Figure 10. Fragment of basalt fenestrated stand between stones at interior of wall entrance.

## CONCLUSION

A season of excavation at H. Duvshan provided an important window into the site, giving us a glimpse of what is and is not preserved from the Chalcolithic. While the density of material culture remained low across all excavation units, within the 50 sq m exposed by AS18–20, we have at least a few important pieces of information. First, the positive: Virtually all of the pottery appeared to be Chalcolithic in date, and similar to Golan ware, which is unsurprising given the relative proximity of the Golan sites. Second, we exposed a building and defined its architectural features. The construction of this structure was crude, but the building was built upon bedrock, perhaps leveled in places with rocky fill (204), and a floor surface may have been prepared (056). However, within this building, heavily rolled sherds and broken, chipped stone artifacts hint at tertiary deposition, with the notable exception of the in situ sherds near the bedrock. The total lack of organic remains (seeds or animal bones) is not too surprising given the limited soil depth, the tertiary nature of most of the deposits, and the acidity of the basaltic soil.

## FUTURE RESEARCH

Despite the poor preservation of artifacts and biological remains, in the excavated areas, the site of Horvat Duvshan is intriguing for its size and the clearly Chalcolithic nature of the remains on the surface. An additional season is planned to investigate the spatial layout of what appears to be a large village. In addition, we would like to explore the possibility that the substantial terrace walls may also date to the Chalcolithic, an assumption that we might normally discount in favor of more recent terracing activity. Yet the lack of artifacts dating to other periods along with the substantial preservation of Chalcolithic architecture lead us to wonder whether perhaps the agricultural Chalcolithic inhabitants of the region were already building substantial terraces on these well-watered and fertile slopes.

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