

AREA D

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Excavation in Area D, on the south slope of the acropolis of *Tell Heshbân*, was originally undertaken (1) to investigate the apparent southern access route to the acropolis from the lower city, and (2) to link structures on the perimeter of the acropolis with structures in the center (Area A). The first of these aims was at least partially accomplished in 1968 by working the three 6.00 x 8.00 m. Squares laid out along the east side of the north-south axis.¹ The second aim was furthered in 1971 by concentrating our efforts on the northern sector of Area D contiguous with Area A. In addition to continuing excavation in the portion of Square D.1 north of Wall D.1:4, this necessitated opening two new Squares of unequal size in the hitherto undisturbed area between D.1 to the south and Squares A.3 and A.4 to the north. Square D.5 (3.75 x 4.00 m.) ran from the north-south axis in the west to a north-south wall on the east (the northern extension of Wall D.1:3) which appeared through the ground surface and served as the balk separating D.5 from D.6. The latter (4.00 x 8.25 m.) ran further east and lined up with the eastern boundary of Area A. No sooner had ground surface clearance begun in D.6 than a northern extension of Wall D.1:5 effectively divided it into D.6 West and D.6 East, each with its own supervisor. This combination of continuing D.1 and beginning D.5 and D.6 meant that all season we were working in widely differing chronological horizons. This procedure can be justified in that it enables us to describe a complete stratigraphical sequence in Area D from surface soil down to bedrock (D.1 and D.6E), and at the same time to relate at least a part of this sequence (D.5 and D.6) to the data discovered in Area A.

Our report consists of two sections: the first is descriptive, dealing with the progress of excavation in each Square, followed

¹ See P. A. Bird, "Heshbon 1968: Area D," *AUSS*, 7 (1969), 165-217.

by the second which summarizes the results for a comprehensive interpretation of Area D.

Square D.1

Tying 1971 in to 1968. A glance at Fig. 9 in the 1968 Heshbon report² will show the reader how D.1 north of Wall D.1:4 looked when we resumed excavations in 1971 (with the single exception that curtain Wall D.1:26 had already been dismantled in 1968); cf. the right half of Pl. IX:A in this report for a view of the Area covered by flagstone Floor D.1:33-34. The following discussion will be clearer if reference is made concurrently to the north balk Section in Fig. 4.

Since the flagstone floor was such an impressive structure, the Jordanian Department of Antiquities recommended that, at least temporarily, it be left intact, with the exception that we could take up the easternmost two rows of pavers in order to investigate the certainly undisturbed stratification beneath. Preparation for this latter operation involved the removal of the two stones of Wall D.1:32 as well as the stub of Wall D.1:3 that protruded into D.1 from the north balk. This proved to be an important opportunity to see whether D.1:3a and b were, indeed, distinct phases or contemporary. Of the 15 significant sherds from the bottom course of the wall (D.1:3b), four were Ayyūbid/Mamlūk. Three other factors lend weight to the conclusion that Wall D.1:3b was built to serve as the foundation course for the slightly narrower courses of Wall D.1:3a: (1) Its foundation trench dug through Surface D.1:22 gave every indication of having gone clear down to flagstone Floor D.1:33-34, and not having stopped at the top of Wall D.1:3b. (2) Precisely the same technique of using a wider foundation course for the rest of the wall was used in corresponding Wall D.6:3a. (3) Wall D.1:3b must post-date Walls D.1:15 and 24 and D.5:12a for stratigraphic reasons, not to mention the difficulties involved if one proposed that Walls D.1:15, 3b, and 24 were used contemporaneously—what would one do with .75 m. wide rooms?

It was convincingly argued after the 1968 season that Walls D.1:15 and 24 were contemporaneous, serving to divide up the

² *Ibid.*, 171.

space provided by flagstone Floor D.1:33-34 north of Wall D.1:4, though the missing row of pavers to the west of Wall D.1:24 was difficult to understand.³ The dismantling of Wall D.1:15 proved that Floor D.1:33 to the west of it and Floor D.1:34 to the east of it were actually one continuous flagstone floor. The few sherds that came from the wall were dated Umayyad, Early Byzantine, Early Roman, and late Iron II. The dismantling of the two courses of Wall D.1:24 further to the east yielded Umayyad sherds (along with Early Byzantine and UD). Wall D.6:56 may have been robbed out to build the room bounded by Walls D.1:4, 15, and 24, and Locus D.1:29 was filled in its place (no pavers being available). Surfaces D.1:29 and 36 were the original use surfaces on the west and east sides, respectively, of Wall D.1:24.⁴

A Succession of Surfaces. Though excavation in 1968 stopped on Surface D.1:36 to the east, it continued through Surface D.1:29 on the west, and on through a floor (D.1:41 and its makeup) of "light greenish buff slightly argillaceous poorly indurated dolomitic limestone" (geologist Reuben Bullard's description!) which, in 1968, we unpretentiously called "soapstone"⁵ (and which may already have been penetrated by the wall robbers), to clayey Surface D.1:35. Before we could reach independently this same clayey surface in 1971 we had first to excavate five loci beneath Wall D.1:24 and to the east of the robber trench: (1) clayey Surface D.1:36 and (2) its ashy build-up, reddish-brown chalky Layer D.1:40, (3) Firepit D.1:42 on Surface D.1:41 in the northeast corner of the Square, (4) Floor D.1:41 built of the dolomitic limestone tiles that were later traced across the entire Square (coin No. 168, a Roman *aes* IV type of the 4th-5th cent.,^{5a} was found in this floor, thus providing a date reference for the floor), and (5) its red mortar-like makeup, Locus D.1:43. These loci contained Umayyad and earlier sherds.

The thinness of these accumulated layers may be indicated

³ *Ibid.*, 178-181.

⁴ *Ibid.*, 181.

⁵ *Ibid.*, 178.

^{5a} Editors' note: The coins from the 1971 excavations mentioned, by number, in this report have been identified by A. Terian in his forthcoming article.

by the following statement from the D.1 locus book: "It appears as though Wall D.1:24 is founded at its south end on Surface D.1:36, at its center on Surface D.1:40, and at its north end on Floor D.1:41." In fact, chunks of dolomitic limestone were used in the construction of the wall itself, possibly taken from the robber trench just to the west. Another interesting feature of the wall's construction was that its lowest course at the south end (where it abutted Wall D.1:4) contained a rough field stone unlike the cut stones used in the rest of the wall. It rested on the upper well-cut stones (which in turn lay on Surface D.1:44) of Locus D.1:45, a curious installation carefully constructed to abut Wall D.1:4.

A Series of Fill Layers. In any case, having arrived at clayey, hard-packed Surface D.1:44 (reached at the bottom of the robber trench in 1968 and then called Surface D.1:35), we were for the first time on the same surface throughout the working space. No sooner had we penetrated this crust, than we ran into four layers (D.1:44, 46-48) of typical rubble fill: rocks, gravel, loose dirt, air pockets, and 32 pails of sherds (possible Late Roman, Early Roman dominant, Late Hellenistic, late Iron II, UD). Beneath this 1.25 m. deep fill, on hard-packed, reddish clay Surface D.1:49 were found a .75 m. diameter firepit running into the east balk, a nail, spatula, and at least two smashed storage jars—good evidence for occupation.

Having reached a suitable temporary stopping place in this sector of D.1, we moved west to take up the two easternmost rows of pavers from flagstone Floor D.1:33-34. As expected, immediately beneath the pavers was a layer of red earth makeup (D.1:50) with Umayyad, Early Byzantine, Roman, late Iron II sherds, plus numerous tesserae, chunks of iron slag, and large fragments of glass. Beneath Locus D.1:50 lay Loci D.1:41, 43 (Umayyad), 44, 46-49 (Roman) at levels that matched up well with their counterparts already excavated in the adjacent sector to the east.

Now cleared down to Surface D.1:49 throughout, we were ready to continue through it. The surface's brown, chalky makeup was hard-packed, containing a few Early Roman and a considerable number of late Iron II sherds. Next came hard-packed white

huwwar Surface D.1:51 (again throughout D.1), that sloped gently from west to east following the general contours of bedrock, and yielded a few Early Roman and late Iron II sherds. It covered bedrock directly except for deep depressions in the southwest and northeast, where pockets of reddish-brown, hard-packed dirt were found (Locus D.1:52) to contain a few Early Roman and late Iron II sherds.

The remaining question concerns the founding of Wall D.1:4d. Though at first glance it did not appear to cut either Surfaces D.1:49 or 51, these both lay so close to bedrock that, for all practical purposes, we could say Wall D.1:4d was founded on bedrock. A clue as to why the wall and fill (for a Roman fort?) were so deep here may be found in the level of the cistern complex discovered in D.5.

Square D.5

Ground Surface Features. The purpose for opening up D.5 has already been described: it was presumed that here the courtyard entryway discovered in D.1 (west of Wall D.1:3) would lead into Area A. The question was how. Would Wall D.1:15 and flagstone Floor D.1:33-34 beneath it—both of which ran into the D.1 north balk—come through on the other side? The only two obvious things were that Wall D.1:3 ran at least part way to the north, and that the terrain sloped down westward from that wall into a depression and thence rose again toward the west balk.

Loci D.5:1, 3, and 4 were successive layers of tumble (much of it possibly from the northern extension of Wall D.1:3, Wall D.5:2, the “outer” face of the western wall of the vaulted room which ran from the south balk, where it stood preserved to a height of six courses, to the north balk, where it had been destroyed down to two surviving courses) and accumulated soil that contained Ayyūbid/Mamlūk, Umayyad, Early Byzantine, Early Roman, and UD sherds, as well as an Ayyūbid coin (No. 184). The lowest of these layers (D.5:4) was found to have covered the mouth of an unusual cistern (D.5:5) which will be described below.

The last layer of actual tumble appeared to be Locus D.5:6

which covered the Square at the approximate level of the cistern collar stones. In it were Ayyūbid/Mamlūk, Umayyad, Early Byzantine, Early Roman, and some late Iron II sherds, along with two coins (4th cent. A.D. and Mamlūk). Under Layer D.5:4 in the southwest corner of D.5, however (i.e., between the south and west balks and the cistern collar), appeared the first two surfaces—a hard-packed pebbly earth surface and, beneath that, Surface D.5:14, another hard-packed pebbly earth surface but distinguished from the former by its distinct gray color. Both of these loci yielded sherds with the same readings as those of Layer D.5:6. Beneath the latter in the rest of the Square, lay Layer D.5:8.

The Courtyard Entryway. Layer D.5:8 sealed over the architectural remains we had hoped to find: (1) Wall D.1:15 did indeed come through into Square D.5 as Wall D.5:9, incorporating (in the south balk) the eastern half of a curious .75 x .75 m. block of stone (the upper surface being only .60 x .60 m. because it had been cut away on the northern and eastern edges) which penetrated the flagstone floor. Wall D.5:9 continued past Cistern D.5:5 into the center of the Square where it had been robbed away completely. (2) In the north balk, running out of the west balk and into the east balk (i.e., under Wall D.5:2 = D.6:2) the upper course of Wall D.5:12 appeared. When the north balk was removed, Wall D.5:12a was found to have been a fine two-row (.93 m. wide), two-course (.50 m. deep) wall of header-stretcher construction similar to Wall A.2:8 discovered in Area A. Built into the wall where it entered the west balk was a threshold-doorjamb construction similar to those found in 1968⁶ in Walls D.1:4c, 15, and 24, where two stones shared a depression carved out for the step and doorjamb, indicating that the door swung away from D.5 into A.4. The eastern of the two stones contained a door socket and the western stone included a vertical bolt hole. Wall D.5:12a rested on the slightly wider course, Wall D.5:12b. Wall D.5:12 (= Wall A.4:12) is the best candidate for the south exterior wall of the Area A church. Admittedly it is aligned about .80 m. too far north to be symmetrical with the plan of the church's north exterior wall (A.2:8),

⁶ "Heshbon 1968: Area D," p. 180, Fig. 11.

but this may well be explained by the location of Cistern D.5:5, which would make a poor foundation for a church wall! (3) About .05 m. lower than the surviving top of Wall D.5:12a and beneath Wall D.5:9 lay the northern extension of flagstone Floor D.1:33-34=D.5:11. This floor was now found to extend from Wall D.1:4, with its threshold in the south, to Wall D.5:12, with its threshold directly opposite in the north. In a line between these thresholds lay the mouth of Cistern D.5:5, whose collar stones rested on Floor D.5:11 (or on a slight accumulation of soil above it?). While the pavers of Floor D.5:11 were all laid stretcher fashion in relationship to Wall D.1:4 as far north as Cistern D.5:5, between the latter and Wall D.5:12 several of the pavers were headers. Was this a part of the original construction or a later accommodation? At this time, one can only speculate. In any case, the pavers were obviously robbed out along the east balk—apparently in pre-Ayyūbid/Mamlūk times. A few of the pavers in the northwest corner of the Square were sunken—undoubtedly due to their having been near the mouth of the cistern and, perhaps, over a water channel. (4) Locus D.5:10 was a thin but hard-packed layer of reddish soil found in various spots on Floor D.5:11, but especially around Cistern D.5:5 west of Wall D.5:9; in fact, the cistern's lowest course of collar stones may rest on this layer, if this reddish soil did not just gradually sift in to fill up the crevices under them. Sherds from this layer were dominantly Umayyad with some Early Roman and three somewhat suspect Ayyūbid/Mamlūk.

Cistern D.5:5. Fig. 5, containing a Plan and Sections of the cistern, may be compared with the following description: access to the cistern was gained by a .55 x .55 m. opening in flagstone Floor D.5:11 in the southwest corner of the Square, .50 m. from the west balk. Two courses of stones raised its square collar .50 m. above the floor. From the top of this curbing to the top of the talus-like dirt pile in the cistern beneath the opening was a distance of 8.50 m. This entrance was at the east end of the oblong cistern whose dimensions were ca. 8.50 m. (east-west) x 4.50 m. (north-south) x 6.00 m. (depth from the ceiling in bedrock to the cistern floor—not including an additional 4.00 m. for the neck),

giving it an estimated capacity of 229,000 liters (60,600 gallons)!⁷ As one stood at the eastern end of the cistern and looked up, one saw the view in Pl. IX:B. Cistern D.5:5 had two access openings: the westernmost access was square-cut through bed-rock in three gradually narrowing steps toward the ground surface, but was subsequently blocked—apparently by one stone. This access lay outside D.5 to the west. Not more than 1.50 m. to the east was the access opening already described. But the photograph makes it apparent that the original access was not there. It looks rather as though Cistern D.5:5 was once a natural cave entered laterally from the east. At some later time, the cave was enlarged and deepened for use as a cistern, the natural entrance to the cave then having been walled up, and the entire mouth covered with a vaulted ceiling of cut stones which left only the vertical entrance at the top. The floor and walls of the enlarged facility were completely plastered. Marks of the ancient water levels were still visible. Evidence indicated the cistern may have been fed by at least two water channels from the northeast, though these were not clearly noted from inside. A hole was noticed in the south wall near the ceiling.

Covering the entire cistern floor to a fairly uniform depth of .25 m. was a layer of dark gray silt, obviously having settled through water during use, but now dried and cracked into large chunks. Overlying this silt at the eastern end was a further build-up of debris—naturally highest (1.50 m.) directly beneath the easternmost mouth, but sloping gradually westward to a distance of 3.50 m. These layers were strewn with fallen plaster and contained the one missing collar stone from the mouth of the cistern. Careful work over a period of one and a half weeks yielded five distinct soil layers (D.5:5b, c, d, e, f=a) that together contained 23 pails of sherds (predominantly Ayyūbid/Mamlūk, but with a few Umayyad, Early Byzantine, and Roman), 25 coins (all Ayyūbid and Mamlūk except No. 53 which is of Pontius Pilate and dates to A.D. 29/30), five nails, four rings, two weights (one iron, one stone), two hooks, and one each of a grappling anchor,

⁷ Capacity calculations for the cisterns of Area D were kindly provided by Robert Mazziotti of the Massachusetts Institute of Technology from measurements supplied by the author. See below for the capacities of Cisterns D.6:33 (p. 101), 48, and 47 (p. 107).

spur, bracelet, glass bead, flint knife, and a column fragment. The top silt layers were almost sterile while the bottom two layers produced 60 percent of the pottery and 90 percent of the objects.

Dating the cistern cannot as yet be precise though the *terminus ante quem* for its construction would certainly be the Umayyad period (because the flagstone floor covered it). A water channel (D.5:20) that may have led into it from the east was found to contain Early Roman sherds at the latest. The cistern was obviously cleaned out and reused in the Ayyūbid/Mamlūk period as is conclusively demonstrated by the ceramic and numismatic evidence. Its use may have been successive to that of Cistern D.6:33, described below.

The D.5 Robber Trench. Along the east balk, i.e., in the vicinity of Wall D.5:2, flagstone Floor D.5:11 had apparently been robbed out. When? Stratigraphically it had to be later than that phase of the Umayyad period when this floor was built, but earlier than the Ayyūbid/Mamlūk period when Wall D.5:2 was constructed (because fill Layer D.5:8 which covered all the exposed architecture in D.5 also filled the robber trench and went beneath Wall D.5:2). Considering also the ceramic evidence already mentioned, the robbing probably occurred at the end of the Umayyad period. Why did it occur? Most probably the robbers were just after the pavers, because probes below Locus D.5:8 indicated loci undisturbed at least as far back as the Late Roman period. The stratification below the robber trench was complex; it may therefore be expedient to wait until a later season's report to discuss our probes in this sector. It might be noted that these probes revealed nothing later ceramically than Umayyad in any of the loci.

Square D.6 West

The Vaulted Room. Before digging commenced in D.6 it was obvious that its western sector contained the rock-strewn collapse of the northern half of the vaulted room of D.1 (excavated in 1968). Both Walls D.1:3 on the west and D.1:5 to the east could be traced on the surface from the north balk of D.1 well

into the new Square. The questions were how far north they went and how they related to Area A. Between these two walls lay a depression: the collapsed vault. To the east of Wall D.1:5 and its northern extension, the terrain sloped rapidly away. When it became apparent that Wall D.6:3 (the northern extension of Wall D.1:5) continued into the north balk of D.6, effectively dividing our elongated Square in half, we separated our working force into two teams, one to work the western sector of D.6 (the vaulted room), the other to work its eastern sector (the slope outside). The surviving height of Wall D.6:3 (ca. 3.00 m.) made this arrangement permanent throughout the season. Thus the loci now to be described are confined to D.6W which was bounded by the north and south balks, Wall D.6:2=D.5:2 (the northern extension of Wall D.1:3) on the west, and Wall D.6:3 on the east.

Loci D.6:5 and 16 were stages of the vault's collapse, offering mute testimony to its nature. The debris above the latest occupational layer contained numerous baked bricks, usually of uniform size (.22 x .205 x .07 m.), several clay ball weights, two coins (Nabataean and Mamlūk), a quern fragment, and the inevitable selection of sherds from the Ayyūbid/Mamlūk and Umayyad periods (this reading was basically the same for each of the succeeding loci in the room).

The first traceable surface reached was Locus D.6:20, though its uneven, coarse nature was more indicative of weathering than occupation, and probably dates from the room's abandonment. The last occupation of the room must be connected with D.6:26, a .06 m. thick, gray ashy layer characterized also by thin patches of brilliant red sand and containing several more clay ball weights, and an Umayyad coin (No. 67). Below this locus were a one-course wall, D.6:29, running east-west in the south balk the full width of the room, and three other similar walls running northward from it. If they were founded after the use of Surface D.6:31, as seems most likely to us, they most probably served as structural supports for the fill used to level up for occupation Surface D.6:26 (this being required because of the lower floor level of Surface D.6:31 in contemporary use with Floor D.1:14 south of Wall D.6:29). In any case, Layer D.6:27, which came

between occupation Surfaces D.6:26 and 31, and which surrounded these walls, seems to have been fill for the last occupation Surface D.6:26. Surface D.6:31 was a hard-packed brown earthen floor with traces of plaster or *huwwar* that was easily traced throughout the room. Its makeup contained an Ayyūbid coin (No. 187).

Peeking up through Surface D.6:31 in the northwest corner of the room were the tops of the rough stones of one-course double-row Wall D.6:32 which may have served as a little retaining wall (one of whose stones was a roof roller), against which layer after layer of thick *huwwar* was laid in this northeast corner of the vaulted room, providing a cover for the mouth of Cistern D.6:33.

Cistern D.6:33. At the end of the 5th week of excavation, actual clearance of Cistern D.6:33 began, and it took the remaining two weeks of the season to complete the job. The accompanying Plan and Section of the cistern (Fig. 6) are self-explanatory as to its shape, dimensions, and essential features. Only the slimmest of our workmen could enter the .50 x .50 m. mouth and be lowered by rope through the 3.50 m. long neck (2.40 m. of which was artificially built up above bedrock), and down a further 1.00 m. from the ceiling to the top of the dirt pile which sloped gently in every direction to fill the 6.00 m. (east-west) x 4.40 m. (north-south) cistern proper (estimated capacity: 79,200 liters or 20,900 gallons). Nine distinct layers (D.6:33a-i) were painstakingly separated out before the floor was reached. Sifting each basketful of dirt that came from this 2.00 m. high dirt pile yielded the inevitable bones, glass fragments, and sherds (40 pails of them—dominantly Ayyūbid/Mamlūk but going back to Umayyad, Early Byzantine, Late and Early Roman, and late Iron II), but also well over a hundred objects including seven complete or nearly complete ceramic vessels (four lamps, two water jugs, and a strainer juglet), a glass lamp, 35 coins (mostly Umayyad, Ayyūbid, and Mamlūk; except for No. 215, Seljūq of Rum;⁸ No. 48, Alexander Jannaeus [103-76]; No. 58, Maxi-

⁸ This rare coin was examined by George C. Miles, Curator of Islamic Coins of the American Numismatic Society. In a letter to Siegfried H. Horn dated May 25, 1972, he states that the type seems to be unknown but that it

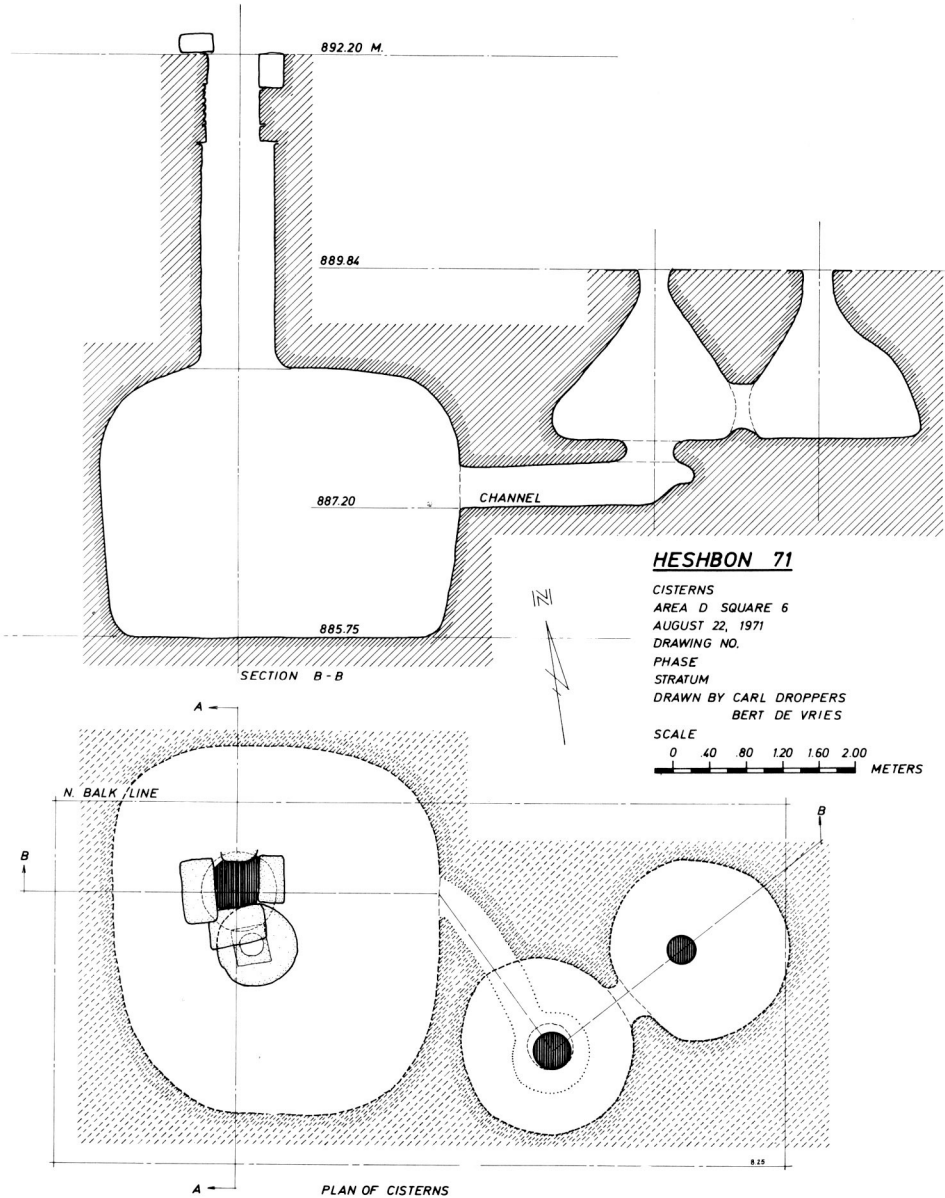


Fig. 6. Plan and section of the three interconnected cisterns in Square D.6

mian [296-305]; and No. 179, Roman *aes* IV type [4th-5th cent.]), 11 beads, ten clay ball weights, seven arrowheads, six rings, three bracelets, three knives, a number of bricks, nails, olive pits, and eggshells, and at least one each of the following: needle, button, sickle, key, spike, loomweight, spindle whorl, whetstone, chain link, iron horse trapping, wooden handle in a metal sheath, and part of a stone column!

An interesting feature of the cistern was that issuing from its eastern wall was a .50 m. wide channel that continued eastward through the bedrock for 1.70 m. before it was blocked by rocks. The Plan shows how it eventually connected up with two other cisterns discovered in the bedrock of D.6E. This feature indicates it was originally constructed in the Roman Period (if not before), though it was certainly cleaned out before its last use in the Ayyūbid/Mamlūk period. Its rock walls were sealed with two coats of plaster. Preliminary study argues for at least two separate use phases in the Ayyūbid/Mamlūk period based on the finds in Layers D.6:33a-e (the conically shaped upper portion of the dirt pile directly beneath the neck) as opposed to the finds in Layers D.6:33f-i (the fairly level portion of the dirt pile that touched all sides of the cistern), the latest possibly related to the building of the vaulted room.

Below the Vaulted Room. Locus D.6:36 was interpreted as the fill imported by the vaulted room builders, perhaps dated by an Ayyūbid coin (No. 190) found next to the cistern's mouth. Beneath this fill lay a reddish-brown soil layer, D.6:49, from which the foundation trenches were dug for Walls D.6:2 and 3. It would be sensible to consider D.6:49 simply a leveling layer before construction began (especially since it covered earlier Walls D.6:54 and 55, and may be compared with Locus D.1:22 from which the southern foundation trenches were dug) but it has to be more than that for at least two reasons: on it a collapsed *ṭabun* was preserved in the northeast corner of the Square and .50 m. to the southwest of the *ṭabun*, at ca. the same level, were the uppermost collar stones surrounding the mouth of Cistern D.6:33—obviously the use of both of these installations was contemporary with the use of Surface D.6:49. The must be either late Seljūk of Rum or early Ottoman. It was independently identified as the latter by Terian.

ceramic range of the sherds from this locus was Ayyūbid/Mamlūk, Umayyad, and Late and Early Roman, so it should probably be correlated with the earliest silt layers to have been deposited in the cistern (D.6:33f-i), if not with the builders of the vaulted room.

Under Surface D.6:49 lay the remains of a substantial two-row wall (ca. .75 m. wide), D.6:54, the northern extension of Wall D.1:24 (but here preserved a course lower) which ran north next to the collar stones of Cistern D.6:33 (just to their east) until it abutted the eastward extension of Wall D.5:12, i.e., Wall D.6:55, which came into D.6W under Wall D.6:2 and paralleling the north balk. To the west of Wall D.6:54 lay a layer of reddish gravelly dirt, D.6:50, and to the east of the wall a layer of gray, ashy soil, D.6:51—both loci perhaps datable to the pre-Ayyūbid period on ceramic evidence. Under each of these loci, respectively, lay yellowish-brown, hard-packed earth Surfaces D.6:53 and 52—the surfaces upon which excavation stopped. Two miniature probes along the south balk on either side of Wall D.6:54 assured us, however, that we were just one locus away from the greenish buff dolomitic limestone floor that will hopefully allow us to tie D.6W securely to D.1 (for an earlier stratum) next season. In the meantime we left showing through Surface D.6:53 two well-drafted stones of a one-row wall (D.6:56) which ran north from the south balk .25 m. from Wall D.6:2. Left resting on Surface D.6:52 was a 1.50 m. long monumental architectural fragment and a millstone.

Square D.6 East

Ayyūbid/Mamlūk Terraces. The appearance of the slope that comprised the east half of D.6 (east of Wall D.6:3) and why it was dug separately have already been described. It soon became evident through Probe D.6:4 along the north balk that soil layers could not be cleared in strips down across the ground surface because in Ayyūbid/Mamlūk times there had been a series of three superimposed terraces here (whose function is not entirely clear), each ca. .30 m. deep and constructed by building a one-course, one-row retaining wall behind which soil was filled to the level of the wall top. Terrace 1 comprised Sur-

face D.6:6 behind Wall D.6:7 and Terrace 2 comprised Surface D.6:9 behind Wall D.6:8. Unlike the previous two, Terrace 3 ran east-west along the south balk (at practically the same level as Terrace 2) and comprised Surface D.6:13 behind Wall D.6:12 (which, in turn, was associated with cobble Layer D.6:11 further to the east). These terraces were held in place by Walls D.6:60 and D.6:61, both of which were founded on Surface D.6:10 that covered all of D.6E and whose occupational build-up was denoted Locus D.6:14. Sherds from these loci were dominantly Ayyūbid/Mamlūk with only a few from earlier periods.

Below the reddish tan gravelly makeup for Surface D.6:10, fill Layer D.6:15 was found, containing two coins (Nos. 56, 169) of the 3d-5th cent. With the clearance of this tumble it became apparent that a major east-west wall, D.6:19, ran through the Square next to the south balk. The D.6:15 fill covered two mangers which had been incorporated into the top of Wall D.6:19b. Most of the tumble fell on Layer D.6:17 which differed from fill Layer D.6:15 only in that the large stones were gone and the color was now more yellowish than gray.

The Tessellated Floor. The first good occupation surface below Surface D.6:10, again covering the entire Square, was Layer D.6:21b, a .05 m. thick accumulation of soft gray soil resting on a badly damaged tessellated floor, D.6:23. Surface D.6:21b was unfortunately not dug separately from Surface D.6:21a (a yellowish coarse layer which may have been an ephemeral surface since there is evidence that one of the stones of Wall D.6:18 [cf. below] was associated with it)—hence the pottery reading for both was a few Ayyūbid/Mamlūk, Umayyad, Early Byzantine dominant, Early Roman, and late Iron II. Surface D.6:21b came from a time when the mosaic beneath was no longer appreciated, or had become too fragmentary for use. Column D.6:24 (1.20 m. long, tapering from a diameter of .285 m. at the top to .35 m. at the bottom) may have been reused (if it was *in situ*) in the southeast corner of Square D.6E on Surface D.6:21b. Likewise on Surface D.6:21b rested Wall D.6:18, the three large stones of which ran east from Wall D.6:3b, the fourth (a later addition) turning the corner into the north balk.

Tessellated Floor D.6:23 or its gray cement-like setting was

found in uneven patches throughout the sector bordered by Wall D.6:3c (west), Wall D.6:19c (south), and an unexcavated wall ca. .75 m. east of the east balk. It went through the north balk to and under Wall A.3:9, where it had already been discovered in 1968 (Floor A.3:13). Its geometric mosaic pattern of diagonal rows of .40 m. wide red squares set in a white background—the whole surrounded by a double band of blue tesserae—accommodated itself to each of these walls except the last one (Wall A.3:9), thus indicating the plan of the room for which it was built (except for the north end in Square A.3). Pl. X:A shows the pattern of an individual square, the center of which contained a diamond cluster of 41 red, white, blue, and yellow tesserae. The sherds from the mosaic setting were read as two Ayyūbid/Mamlūk intrusive, Early Byzantine, Late and Early Roman, one Nabataean, two Roman *terra sigillata*, and a few late Iron II. Apparently, during this time, Wall D.6:3c contained a 3.00 m. long step leading up to the location of the D.6W cistern except in the southwest corner of the room, where its three preserved ashlar courses abutted the three preserved ashlar courses of Wall D.6:19c (Pl. X:B). In the Ayyūbid/Mamlūk period, the long step of Wall D.6:3c was narrowed to become a .75 m. wide stepped doorway. Both sides of the doorway were filled in with more roughly squared stones (D.6:3b) and at least two courses were added to Wall D.6:19c in the same technique. At a still later date within the Ayyūbid/Mamlūk period even this narrow doorway was blocked up and over Wall D.6:3b and across (at right angles to) Wall D.6:19b, a wider foundation course was added in order to construct Wall D.6:3a—the eastern wall of the vaulted room of D.6W.

Beneath the Tessellated Floor. Loci D.6:35, 37, and 38 were brown, stony fill layers directly beneath the make-up for the mosaic patterned floor. In fact, they probably included some of the makeup since the earliest pails of sherds included a few Early Byzantine sherds in addition to the characteristic reading: Late and Early Roman, Nabataean, and a few late Iron II sherds—as well as a Roman *aes* IV type coin of the 4th-5th cent. Under these layers were Loci D.6:40 and 42, characterized by a massive fill of football-sized stones similar to that encountered

in Loci D.1:44-48. Walls D.6:39 and 41 were found running north-south in the western portion of this fill—whether they were accidental, planned free standing walls, or rough walls to structure the fill is a matter for debate. In any case, all four loci contained sherds that were dominantly Early Roman, Nabataean, and late Iron II. All this rubble fill came to rest on hard-packed Surface D.6:44 which covered the entire Square. Its brown sandy soil make-up furnished Early Roman, Late Hellenistic, and late Iron II sherds, as did Locus D.6:45, the last surface above bedrock. The latter, a crust of hard white *huwwar*, covered a makeup (build-up?) of yellowish-brown sandy soil and gravel, and went right up against Wall D.6:46 which ran on bedrock from beneath Wall D.6:41 in the north balk to the east balk. Though Wall D.6:46 did not cut Surface D.6:45 (and Surface D.6:44 covered it), it and Surface D.6:44 were both cut by Wall D.6:19d—though there was no preserved surface to associate with the latter.

Cisterns in D.6E. The last week in the 1971 season brought a double surprise in D.6E: in clearing Surface D.6:45 from bedrock, the mouths of two more cisterns appeared (Fig. 6). The .30 m. wide mouth of Cistern D.6:48, blocked with a single stone, was 1.00 m. west of the east balk, midway between the north balk and Wall D.6:19d. Though it contained two soil layers, dug separately, both layers contained Early Roman, Late Hellenistic, and late Iron II sherds. Through a narrow channel near the floor, the 3,100 liter (820 gallon) capacity Cistern D.6:48 connected with 3,400 liter (900 gallon) capacity Cistern D.6:47 whose mouth opened out of bedrock at the edge of Wall D.6:19d, nearly 2.00 m. to the southwest. This cistern, too, had two layers but of an entirely different nature: the upper one was a .25 m. thick layer of loose black soil which cascaded down over a pile of football-sized rocks (the bottom layer), spilling into Cistern D.6:48 through the aforementioned channel. Another narrow channel exited through a settling basin in the center of the floor of Cistern D.6:47, but it soon turned westward to empty into Cistern D.6:33. It was this latter phenomenon (undoubtedly noticed within Cistern D.6:33 when it was being cleaned for reuse in the Ayyūbid/Mamlūk period) that certainly

prompted the digging of a robber pit (D.6:43) through the southwest corner of tessellated Floor D.6:23 and the layers below it. Perhaps a clue to the reason for this mole-like operation was left by all the rocks piled into and above the settling basin of Cistern D.6:47—the new users of Cistern D.6:33 did not want to be concerned with contaminated water! Certainly a clue to the period in which the clandestine plumber operated was left by the six Ayyūbid/Mamlūk sherds (found in the loose black soil of the upper layer, but characteristic also of robber Pit D.6:43) that spoiled the otherwise “clean” pottery call: Early Roman, Late Hellenistic, and late Iron II.

Correlation of Data from Area D

The following section attempts to delineate and describe the phases of occupation in Area D. A *tentative* stratigraphic and chronological key to D.1, D.5, and D.6 is presented in Fig. 7, providing a chart of vertical sequences and horizontal inter-relationships. The data for the upper portion of D.1 (dug in 1968) may be compared with Fig. 8 in the 1968 report.⁹ It must be noted that the removal (sometimes only partial) of balks between the following Squares has facilitated the correlation of loci now to be summarized: D.1 and D.5, D.1 and D.6W, D.5 and A.4, D.6W and A.3/A.4, and D.6E and A.3.

Ayyūbid/Mamlūk. Phase A of this stratum lumps together the latest occupation evidence in the Area: Wall D.1:4 was not only poorly rebuilt (D.1:4a) but its gateway leading into the acropolis perimeter was blocked by Wall D.1:9. This may mean that Cistern D.5:5 was no longer in use, indeed it may even have been covered by that time. The vaulted room was abandoned, if it had not already collapsed, but at least three small terraces were built outside its eastern wall.

Phase B incorporates the vaulted room of D.1 and D.6W and its three living surfaces (D.1:7=D.6:26 and 27; D.1:14=D.6:31; D.1:20=D.6:31, 34, and 36) with the first gateway through Wall D.1:4b and its two use surfaces to the south (D.1:13 and 11) as well as with Surface D.6:10 and its ashy build-up, Layer D.6:14, both to the east of the vaulted room. The entrance to

⁹“Heshbon 1968: Area D.” pp. 168, 169.

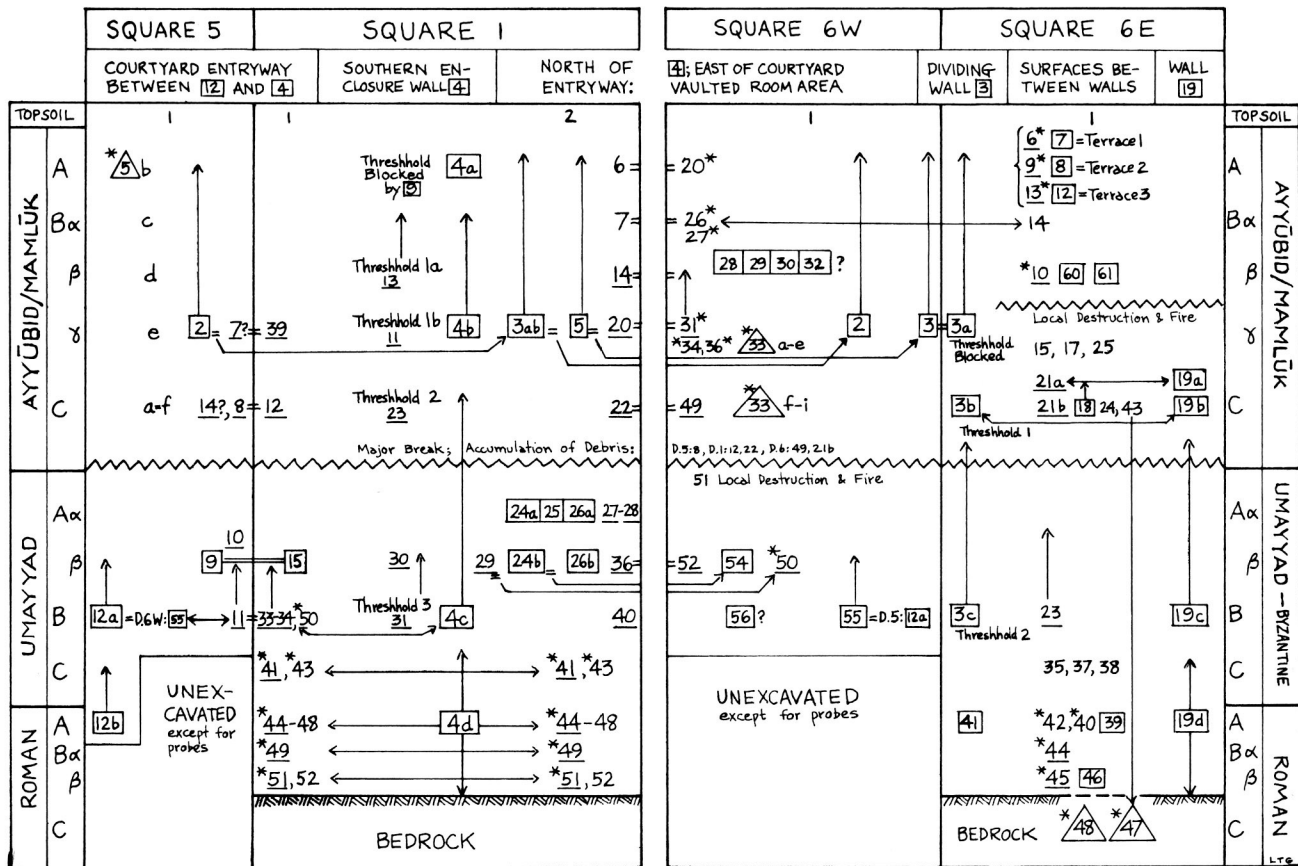


Fig. 7. Table showing tentative chronological order and relationship of principal loci in Squares D.1, D.5, and D.6. Key: Underlined numerals refer to surfaces, boxed numerals to walls, while numerals enclosed in triangles are cisterns

the vaulted room remains an interesting problem—its not being in the east, west, or south makes its location in the north virtually certain. Though removal of the north balk began at the end of the season, not enough of it was taken down to allow a detailed description of the room's northern wall and its doorway. In any case, Phase B was certainly the innovative one within the period of the Ayyūbid/Mamlūk occupation of Area D.

Phase C appears to have been the earliest occupation in the Ayyūbid/Mamlūk period—before the construction of the vaulted room and associated with Cistern D.6:33, but after the accumulation of debris Layers D.1:12 and 22, D.5:8, D.6:21b and 49. These debris layers indicate the abandonment of the site for some time, because these loci contemporaneously covered all earlier architecture except for the stubs of Walls D.6:19c and 3c, and D.1.4c. The new inhabitants of the *tell* rebuilt each of these walls (in a makeshift way) except the last (Wall D.1:4c) in which they established a new threshold (as they did also in Wall D.6:3). Apparently the surfaces of the debris that had accumulated over the *tell* were now used for occupation, particularly in the vicinity of Cistern D.6:33 which was cleaned out for reuse. Down some steps onto Surface D.6:21b, Wall D.6:18 was built.

Umayyad. Phase A seems to have been the last occupation for quite some time. Right at the end of this phase, the doorway through Wall D.1:24 was walled up rather neatly, apparently to orient it toward the east in association with new walls and surfaces. Perhaps the last occurrence, however, was a conflagration next door (Locus D.6:51) which buried several scattered architectural fragments. The phase as a whole was characterized by architectural continuity with Phase B.

Phase B was the innovative stage, at least in terms of building activity in D.1 and D.5. Wall D.1:4c with its threshold, the new flagstone Floor D.1:33-34=D.5:11 (and therefore probably D.5:12a) were all founded during this phase. As has already been suggested, it is possible that Wall D.6:56 served as the original eastern wall in connection with the flagstone floor.

Phase C, the earliest Umayyad phase, is known only from its light greenish buff slightly argillaceous poorly indurated dolo-

mitic limestone tile floor. Such a beautifully wrought floor (D.1:41) laid so carefully into a prepared makeup (Locus D.1:43) cannot have been simply foundation for something else—it must have had a life in its own right. Its Umayyad sherds prevent it from being associated in the same phase with Surface D.1:44, though it was related to Wall D.1:4d.

Early Byzantine. Tessellated Floor D.6:23, with its makeup loci, would have belonged to this period. The floor may have been reused later in the Byzantine period and even in the Umayyad period, but thereafter it would have been covered with debris layers and been out of use.

Roman. Again we have three phases, the latest (Phase A) certainly also the grandest, if height of walls and depth of fills are any indication. Both Walls D.1:4d and D.6:19d were founded on bedrock during this phase and were so well constructed (of giant field stones chinked with smaller rocks and red earth mortar), possibly for a fort, that they were preserved to a height of 2.00 m. and continued to serve as foundations for the rebuilds of all subsequent periods. Then in both cases, more than 1.00 m. of rubble was dumped inside the walls—presumably to bring Area D up to a level that would cover the newly constructed vaulted ceiling over Cistern D.5:5. Square D.1 furnished a good earth surface over all this rubble fill (Locus D.1:44) and though D.6E, too, undoubtedly originally had it, preparation to build a solid bedding for the mosaic patterned floor must have destroyed it. Ceramic analysis indicates a probable date of Early Roman continuing into Late Roman.

Not much can be said about Phase B which comprised the earliest occupational surfaces above bedrock (Loci D.1:49, D.6:44, D.1:51, and D.6:45) except that Surface D.6:45 was associated with Wall D.6:46 founded on bedrock. Phase B may be attributed confidently to the Early Roman period.

The inhabitants of Phase C appear to have been the earliest settlers on the acropolis (possibly Late Hellenistic[?]). Perhaps they were cave-dwellers, for the only evidences of them in Area D were the inverted top-shaped Cisterns D.6:47 and 48 carved out of bedrock and connected not only with each other by a channel on the floor, but with Cistern D.6:33 through a channel

cut into the (original?) settling basin of D.6:47, and cut in such a way as to allow the water level in all three cisterns to rise at the same absolute level. This may indicate that Cisterns D.6:47 and 48 served only to expand the system rather than as collection basins themselves, particularly since no trace of any channel was found leading into them in or above bedrock.

Late Hellenistic. A few Late Hellenistic sherds were found in mixed loci (primarily Early Roman) throughout Area D, but no homogeneous loci were encountered.

Iron II. Late Iron II sherds were frequently found in Early Roman fills and in other mixed contexts. No pure loci or late Iron II structures were identified.

Conclusion

We have now a sampling (complete from two different Squares) of Area D's acropolis stratification from above the ground surface soil to beneath bedrock. Though we look forward to another season to clarify remaining problems and refine existing interpretations, Area D should hold no more major surprises.