### AREAS F and K

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Tomb exploration in the 1976 season was concentrated mainly in Area F, on the southwest slope of Tell Hesbân, where six rock-cut tombs and one cave were examined. Work originally began in this region during the 1971 season and was continued in 1973 and 1974.<sup>1</sup> In an effort to locate possible Iron Age burials, cave exploration and probes were undertaken on the western slopes of Tell Hesbân. Three caves were excavated and one proved to be a burial site, but not attributable to the Iron Age.

Two shaft-type tombs were examined on the hill immediately to the east of Tell Hesbân and one (K.1) was completely excavated.

All tombs were excavated stratigraphically, both inside and in the sector immediately adjacent to the entrance. Sections developed against exterior faces of the blocking stones and entrances helped to confirm the sequence of tomb use through various periods of history. Attention was also given to architectural features of the various tombs and the tool technology employed to cut them. All soil was carefully sifted by locus in order to assure recovery of very small objects and bone fragments.

The three tomb types examined in Area F included (1) the single chamber type with loculi (Heb.  $k\bar{o}k\hat{i}m$ ) radiating from its walls, (2) the vertical shaft type in which the bottom was widened out along each side forming arcosolia with either trough-graves or a flat floor, and (3) a single-chamber tomb

<sup>&</sup>lt;sup>1</sup>S. Douglas Waterhouse, "Heshbon 1971: Areas E and F," AUSS 11 (1978): 113-125; Dewey M. Beegle, "Heshbon 1973: Necropolis Area F," ibid., 13 (1975): 203-211; James H. Stirling, "Heshbon 1974: Areas E, F, and G.10," ibid., 14 (1976): 101-106.

without the presence of loculi. Tomb K.1 followed the pattern of the deep-shaft type tomb which was common to Area F in the Byzantine period, and this featured three distinct parallel burial troughs.

## Tomb F.27 (Fig. 10)

A series of probes utilizing a long steel rod indicated the presence of two vertical faces, the eastern one giving evidence of some type of protrusion, possibly the stone blocking an entrance of a tomb. Excavation proved this suspicion to be correct. Unfortunately, the entrance had been broken open by modern tomb robbers. The original sealing stone was still *in situ*, but the top third of it had been removed and the entrance was last sealed with six large field stones, apparently hastily dumped over this opening so it could be backfilled. It was clear from this characteristic that the tomb had been robbed in recent times. That suspicion was confirmed by initial examination of the interior which was badly disturbed through clandestine activity evidenced further by an empty cigarette package resting in the lamp niche between two loculi.

In spite of the fact that the tomb had been badly disturbed, a stratigraphic sequence for its use was determined. Its architectural uniqueness made further study worthwhile. The tomb was of a squarechamber type with eight loculi cut into the sides at irregular angles (see Fig. 10). One loculus was situated on each side of the entrance and the remaining six were on the south and east chamber walls. An unusual feature was the presence of a subchamber cut from the west chamber wall on the same level as the loculi but with three troughs in its base that were originally covered with gable-shaped sarcophagus lids, one of which was still in place (see Pl. XI:A). The lids averaged 1.00 m. in length, 0.62 m. wide and 0.22 m. thick at the highest point of the triangle.

Like earlier Roman tombs discovered, this had a square-cut depression in the floor of the tomb. But unlike those in earlier Roman tombs, this square was quite large, leaving very little ledge immediately in front of the loculi, and no ledge on the north side.

The square pit, which was common in the tombs of both the Early and Late Roman periods, has been variously interpreted. E. L. Sukenik suggested that their purpose was ". . . to allow head room within the chamber, without the labor which would have been involved in cutting the whole floor area to the required depth"; also that the benches which surrounded the pit area could accommodate the deceased before being placed inside a loculus.<sup>2</sup> Robert Smith maintained that the benches which surrounded the depression were used as a shelf for funerary objects.<sup>3</sup> Some have argued that the depression served as "a place for the collection of skeletal remains,"<sup>4</sup> and this suggestion seems to have some validity in the light of the discoveries at Ramat Rahel.<sup>5</sup>

George E. Mendenhall suggested that this square depression served as a sump and constituted an architectural parallel to tombs in the middle Euphrates region.<sup>6</sup> Sediment deposits in several of the pits appeared to support this conclusion. However, there are some technical aspects of this theory that make it unconvincing. Dewey Beegle observed (of F.18 and other tombs) that the loculi sloped away from the center and gave evidence that pools had formed over the years in the center and back of these loculi.7 This same phenomenon was noted also in F.27 and F.31. For example, in F.27 the floor of Loculus 5 (numbered from left to right) at its entrance was 0.03 m. lower than the edge of the central pit; Loculus 6 had a similar 0.05 m. difference, and Loculus 7 an 0.08 m. difference. All of these produced a silting effect of considerable proportion within the loculi. This was true in F.31, with heavy silting in the entire front of the tomb and in most of the loculi. If the square depression in these Roman tombs was designed solely as a sump, then some of the tomb diggers had failed at their task.

The origin of this depression can be attributed to two possible typological histories. One is that it was a vestige of the earlier Iron II and Hellenistic tomb design, which included benches around a central depression. But this would not account for the common occurrence of such depressions in Roman tombs outside Palestine.<sup>8</sup> Furthermore, the squares are often rather small and would require considerable grading for drainage from loculi to the pit.<sup>9</sup>

It is possible that the square depression is merely one of many architectural features which mirror Roman house design. The *atrium*,

<sup>2</sup> E. L. Sukenik, "The Earliest Records of Christianity," AJA 51 (1947): 351.

<sup>3</sup> Robert H. Smith, "The Tomb of Jesus," BA 30 (1967): 87-88.

<sup>4</sup> Jack Finegan, The Archaeology of the New Testament (Princeton, 1969), p. 185.

<sup>5</sup> Eric M. Meyers, "Secondary Burials in Palestine," BA 33 (1970): 20.

<sup>6</sup> Waterhouse, "Areas E and F," p. 115, n. 5.

<sup>7</sup> Beegle, "Necropolis Area F," p. 207, n. 1.

<sup>8</sup> As, e.g., in Hypogeum 33 at Dura-Europos. See J. M. C. Toynbee, Death and Burial in the Roman World (New York, 1971), p. 223.

<sup>9</sup> Note the small depression in G.10. Stirling, "Areas E, F, and G.10," p. 104.

the central front room of the traditional Roman house, had an *impluvium* (a square or rectangular basin for rainwater) under a roof opening in the center of the room, as is well illustrated in the excavations at Herculaneum.<sup>10</sup> Thus the square depression in the center of these tomb chambers may have been designed as a drainage area much like the *impluvium* in the Roman *atrium*, with the loculi serving as the adjacent "rooms" for its occupants. The fact that silting occurred outside the sump area may be due to ground shifting as a result of earthquake activity or to the tomb masons' merely following an old but ill understood architectural tradition.

That at least one mason recognized the function of the depression is clear from tomb F.28, which had two canals cut in the steps leading to the square depression. It is possible, therefore, that this Early Roman tomb architecture stemmed from domestic architecture.

It is also possible that the depression created benches as a work place for final preparations of a body before burial. Such a bench is hinted at in Mark 16:5 (cf. John 20:12).

Unlike most of the chamber-with-loculi tombs of the Early Roman period, Tomb F.27 displayed considerable architectural irregularity in the facades of the various loculi. Loculi 1 through 5 were fairly uniform with a recessed margin around the vertical face of the entrance. However, Loculus 6 had a facade which was flush with the piers and overhead, while Loculus 7 was cut flush with the ceiling and gave no evidence of recessed margins (see Pl. XI:B). It appeared that the various loculi were not cut by one man, nor all at the time of the original construction.

A study of the tool marks in the various loculi also pointed to workmanship of different masons, who used no less than four different tools and different digging techniques. Loculi 5 and 6, for example, were cut with the common wedged-shaped chisel which had a cutting edge measuring 0.009 m. wide. A blade with a serrated edge measuring 0.005 m. wide was employed in Loculi 5 and 1, but not apparently on the facades or the inside of other loculi. Loculus 7, however, saw the use of a tool with a larger blade, measuring 0.05 m.

The variation in tools and techniques and the differences in the facades of the loculi pointed to sequential construction of the tomb. That factor, combined with the unique appearance of trough burials in the southwest sector of the tomb, seemed to indicate that portions of the tomb were prepared upon demand.

<sup>10</sup> Joseph J. Deiss, *Herculaneum: Italy's Buried Treasure* (New York, 1966), pp. 6, 15, 17, 31, and photos on pp. 16, 63. See also Toynbee, *Death and Burial*, pp. 23, 38.

In spite of both ancient and modern robbing, numerous funerary objects were found in the loculi and burial troughs and on the floor. On top of Locus 7, just inside the tomb entrance, was found a small dish containing a button, bone pin fragments, bone needles, and an ivory mirror handle. A candle placed in the center of the objects indicated that modern tomb robbers had collected these in the dish but for some reason had left them behind. The tomb produced the usual range of funerary materials including bronze and copper bracelets, spindle whorls, cosmetic spatulas, iron nails, and bone hairpins. A very attractive solid gold earring, found in Loculus 7, was one of the finest objects found at Tell Hesbân (see Pl. XII:A).

Bone analysis indicated approximately 17 burials, including at least four children. Among the adults the most common pathological condition was arthritis. Ceramic evidence indicated a Late Roman I-II origin for the tomb and stratigraphic analysis pointed to five phases of tomb history.

The first phase included the original construction and initial use of the tomb in the Late Roman I-II periods. Presumably the north and east loculi were cut at that time, although not simultaneously. Since Loculus 7 and the subchamber containing the trough burials were without lintels, it may be assumed that these were prepared at the same time (or at least by the same mason); perhaps in the second phase of use in the Late Roman III-IV periods. Locus 6, located immediately outside the original sealing stone, and Locus 9 on the floor of the tomb in the northeast corner, confirmed this early sequence. Most of the tomb interior was disturbed to the point that stratigraphic analysis was impossible, but there a considerable portion of the northeast corner was undisturbed, and it was here that the various phases of the tomb use were evident. Only Loculi 1 and 8 were originally sealed by stone slabs, as was common in many Roman tombs, especially where a cult of the dead was practiced.<sup>11</sup> The slab of Loculus 1 was found sealed between Loci 8a and 9a in the northeast sector, indicating that the original disturbance or robbery of the tomb had occurred at the end of the Late Roman period or in initial stages of the Early Byzantine period.

The tomb was in use throughout the Early Byzantine period, as established not only by ceramic evidence inside the tomb but also by a section against the entrance (Locus 6). This accorded well with other burial patterns found throughout Area F and pointed to considerable population density at Tell Hesbân for the period.

<sup>11</sup> Toynbee, Death and Burial, p. 223; also Sukenik, "Records of Christianity," p. 352. The Late Byzantine period saw the fourth phase of the tomb's use, and it appeared from the lack of significant quantities of ceramic materials to have been a much less important phase.

The final aspect of the tomb's history would be its violation in Ayyūbid/Mamlūk and Modern times. Of the loci adjacent to the entrance, only Locus 5, which included the six rough blocking stones over the entrance, contained Ayyūbid/Mamlūk and Modern materials indicating that the remainder of the entrance and lower portion of the sealing stone had not been disturbed since the Late Byzantine period.

Since the tomb was rather thoroughly robbed, it was difficult to determine whether or not its distinctive architectural features represented ownership by a wealthy family at Hesbân, or merely the work of creative masons.

### Tomb F.28 (Fig. 11)

In connection with the tomb exploration of the 1971 season, Philip Hammond and his University of Utah team conducted magnetometer and resistivity tests in a sector 10.00 x 30.00 m. running northeast to southwest, just to the west of Tomb F.5. While the magnetometer survey results were not especially useful, the resistivity chart did indicate several likely tomb locations. One of these proved fruitful with the discovery of F.28.

This tomb, of the square-chamber type, had twelve loculi and also three arcosolia cut immediately above the loculi in the north, east and south walls (see Pl. XII:B). The tomb was found sealed with the original blocking stone *in situ* and a considerable amount of heavy rubble immediately in front of the stone—a sign that the tomb had not been entered in modern times. A section cut against the blocking stone indicated that the tomb was in use from the Early Roman period into the Early Byzantine period but no later than the middle of the fourth century A.D. This range of use was confirmed by stratigraphic and ceramic indicators inside the tomb as well.

This tomb had two unique features. One was the presence of very small loculi on the north side. Loculi 3 and 4 were approximately one half the length of the other well cut loculi. The very rough tooling in the back ends of these indicated that they were never completed. The tomb had the usual square depression in the floor, into which led two channels cut on either side of the main step. This is one of the clearest indicators that the depression was designed for drainage purposes. If so, as noted earlier, however, engineering skill in this area was something less than precise in that the floor on either side of the channels sloped away from them. The loculi surrounding the central chamber were generally square cut and at right angles to the chamber walls. The interior of the tomb had been completely filled as a result of the collapse of all but very small segments of the ceiling—an indication of earthquake activity of some proportion. The tomb, even though not robbed in modern times, appeared to have been disturbed in the Byzantine period. Very few significant objects were found either in the loculi or on the floor. A pin and glass vase were recovered from Loculus 2 and a few small metal fragments elsewhere. None of the loculi contained more than one burial. It appeared that the tomb had only sporadic use into the Early Byzantine period, when it was destroyed. The presence of three arcosolia cut above the loculi is unknown except at Tell Hesbân. Each of the arcosolia was furnished with a slightly raised lip at the front edge with a small drainage canal through it.

The tomb exhibited five phases of history. The construction of the tomb and its initial use can be clearly dated to the Early Roman IV period (A.D. 70-135). The tomb continued in rather limited use into the Late Roman I-II periods (A.D. 135-95) with a final phase in the Early Byzantine I-II periods (A.D. 324-65). The fourth phase of the tomb's history would be its destruction, probably in the great earthquake of A.D. 365. Ceramic materials in the entrance as well as the loci which constituted the original deposits within the tomb included nothing later than the Early Byzantine period. This appeared to confirm the end of the tomb's use.

The final phase of the tomb's history would be dated to the Early Byzantine III-IV and the Late Byzantine periods (A.D. 365-661). The destruction of the tomb by the earthquake left a considerable depression in the ground; and this was probably backfilled for agricultural use shortly after the earthquake, as evidenced by loosely packed yellowish red soil mixed with quantities of field stones and pieces of limestone in Loci 18 and 20.

At least two tools were used in the preparation of the tomb. The standard 0.009 m. wedge blade was the most common for finishing work inside the loculi. Loculus 3 gave evidence of a different tool— a wedge-shaped, flat bladed chisel measuring 0.0351 m. at its tip. This was apparently employed for the work in Loculus 3 alone, for no other evidence of it appeared elsewhere in the tomb unless it was the ceiling, which could not be examined.

The loculi and other architectural features of the tomb represented average workmanship. There was no painting or decoration, nor were there any sealing slabs for the loculi.

#### Tomb F.30

This vertical-shaft tomb was discovered a short distance northeast of F.30 and adjacent to a freestanding stone fence. The tomb must have been sealed by horizontally laid blocking stones which were set on the ground surface, for there was no evidence of a ledge inside the shaft, as was common to tombs of this type found elsewhere in Area F.<sup>12</sup> The arcosolia on either side of the shaft were typical of those common to the Byzantine period at Tell Hesbân. Each of the arcosolia, however, had been expanded into roughly square chambers with the ceiling sloping down at the back of each. The abundant quantities of Early Byzantine sherds in both arcosolia was clear evidence of their original use. Locus 3, which included the interior deposits of both arcosolia, contained not only Byzantine materials but Ayyūbid/Mamlūk as well. The north arcosolium was almost free of objects, while the south arcosolium contained significant quantities of human and animal bone along with numerous objects.

The south arcosolium had been entered in modern times from an adjacent cave. No objects of modern date were found in the north arcosolium or the shaft itself. This indicated that the tomb was in use in the Byzantine period and may have been expanded in the Ayyūbid/ Mamlūk phase and even used for burials at that time. The tomb was filled in the Ayyūbid/Mamlūk period and not reentered from the shaft. The only portion of the tomb disturbed in modern times was the south arcosolium, which had been entered from the cave. Several objects of recent times were found in that arcosolium.

Bone analysis (based on the patellas) indicated that a minimum of 18 individuals had been buried in the tomb. Two of them infants and one possibly prenatal, four children ranging from five to ten years in age. Among the objects found in the south arcosolium were bracelets, earrings, a shell pendant, glass beads, iron rings, and a bronze fishhook. There were non-human bones—17 sheep, 3 chicken, and 1 dog.

Three phases of the tomb's history can therefore be distinguished: (1) the construction in the Early Byzantine periods (4th-5th century A.D.); (2) reuse and possibly expansion in the Ayyūbid/Mamlūk period, during which some robbery may have taken place; (3) the modern break-in from the cave to the southwest.





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SECTION B-B





Fig. 11. Plan and sections of Tomb F.28.

## Tomb F.31 (Fig. 12)

This chamber tomb, adjacent to and immediately south of F.28, had fourteen loculi—one on either side of the entrance and four on each of the remaining chamber walls. It was characterized by outstanding craftsmanship and design (see Fig. 12). On the floor of the main chamber was the characteristic square depression, which was not as large as in other tombs of this type (see Pl. XIII:A). The loculi are well cut and very symmetrical, extending at true right angles from each of the chamber walls. Unlike those in F.28, the loculi were very neatly arched at the top and all were approximately the same in dimensions. (This was not the case in F.27 and F.28.) Only one lamp niche appeared in Tomb F.31, situated in the chamber wall above Loculi 7 and 8. It was triangular, comparable to the one in Tomb G.10.<sup>13</sup>

The exterior of the entrance to the tomb was arched and cut in the same manner as the loculi. Two steps led down to the main chamber. Immediately above the top step was a concave cut that further exemplified the special craftsmanship employed in this tomb.

The entrance was sealed by a large cut stone slab. Three distinct loci could be identified immediately in front of the sealing stone. The topmost layer, 0.24 m. deep, consisted of loosely packed dark reddish brown soil with some lime chips. Locus 5, immediately below, consisted mainly of rock fill, of light reddish brown soil loosely packed with some lime chips. The rocks varied in size from 0.08 m. to 0.35 m. in diameter. Locus 6, immediately below Locus 5, consisted of reddish brown soil packed rather hard, with some evidence of lime flakes. This layer was 0.38 m. in depth. Pottery from these three loci indicated that the tomb was in use over a considerable period of time, concluding with the earthquake of A.D. 365. An Ayyūbid/Mamlūk sherd in Locus 5 was regarded as probably intrusional. The stratigraphy of the section against the exterior of the sealing stone agrees completely with stratigraphic analysis within the tomb itself.

Eight distinct layers of deposit were distinguished in the floor of the main chamber, including the square depression (see Pl. XIII:B).

The tomb was discovered entirely filled with soil and rubble from a complete ceiling collapse, probably attributable to the earthquake of A.D. 365. The topmost layer in the tomb consisted of a loosely packed reddish brown soil with a considerable number of lime chips. This locus covered the entire interior of the tomb's main chamber and rested immediately above Locus 13, which consisted largely of

<sup>13</sup> Stirling, "Areas E, F, and G.10," p. 104 (section A-B).

fractured limestone and rubble from the ceiling collapse. Limestone fragments in Locus 13 varied in size from small chips to larger pieces measuring 0.60 m. long, 0.40 m. wide, and 0.30 m. thick. The average depth of this locus was 2.50 m. and it covered the entire chamber with some intrusions into the loculi.

Ceramic materials from these loci and others on the floor of the tomb, as well as in the loculi, gave a clear picture of five distinct phases of history. The initial phase was its construction and first use in the Early Roman II-III periods, as determined from its architectural features and from sherds found in silt layers on the floor and in the square depression. Ceramic evidence for this period was also found in Loculi 1, 7, 13 and 14.

Loculus 1 turned out to be the most significant of the fourteen in the tomb. Like most of the loculi in the tomb, it was partially filled at the entrance with fractured ceiling material. This material sloped down to about midway back into the loculus. Mixed with fractured ceiling material was a loosely packed reddish brown soil with some lime chips.

The loculus contained the burials of at least ten individuals, based on a count of left patellas: one infant of about one year or less, one youth about ten, another under 15, one adult about 30 or 40 with moderate lipping of vertebrae (indicating the early stages of an arthritic condition), one adult over 65 with severe vertebral lipping, and several adults, of indeterminable age. Adult height ranged from five feet to five feet six inches. Also of special note were two individuals with septal apertures in the distal end of the humerus, perhaps merely a female—or possibly a family—characteristic. With this feature present in only two humeri, it would be somewhat risky to reach a conclusion.

Loculus 1 enjoyed a very long use. Pottery from the Early Roman, Late Roman and Early Byzantine periods was present. Since no nails were found, presumably wooden coffins were not used. The large pile of bones pushed to the back would indicate that the latest burial was placed in the front and middle of the loculus. Resting on top of the bone material midway back in the loculus was a large cooking pot, clearly of the Early Roman type, such as have been found recently in the Jerusalem excavations,<sup>14</sup> but with the distinction of having four handles instead of the usual two. Inside the pot were the ashes of a human cremation.

<sup>14</sup> Nachman Avigad, "How the Wealthy Lived in Herodian Jerusalem," BARev 2 (1976): 28. Cremation was common during most of the Republican period in Rome, but in the second century inhumation began to gain in popularity. The cause of the change has been debated. Some attribute it to rising Christian influence, others to the influences of the mystery religions. In Greece and the Near East under the Empire ". . . burial and cremation had from old existed side by side."<sup>15</sup> This observation seemed to be supported by the evidence of Loculus 1. Assuming that this cooking pot was the original container for the ashes, it would be possible to date the cremation approximately. Presumably some of the other disarticulated bone materials would also be datable to the Early Roman period.

According to Roman custom the corpse, and sometimes the couch on which it lay, would be burned either at the burial place or at a place especially reserved for cremations. The various types of urns for the ashes were made, according to the wealth and prestige of the individual involved, of marble, alabaster, gold, silver, lead, and glass, and sometimes were earthenware pots.<sup>16</sup> Cremation was often practiced during the Republic in order to prevent mutilation of the corpses during the civil wars, although at Hesbân it may have been merely the perpetuation of a funerary rite or a matter of practical necessity.

In addition to the cooking pot, Loculus 1 contained glass vases, a fragmented alabaster bowl, several ivory pieces (including an applicator), ring fragment, pins, and buttons. Just inside the entrance and to the right of the loculus, was a small Early Roman juglet with a strainer and spout, unique because of the Nabataean-type painting on the outside. It might be related to similarly painted pottery found recently in Jerusalem.<sup>17</sup> Several bronze bracelets, a Herodian lamp, and rings were also located among the disarticulated bone materials. Perhaps the most interesting was an Egyptian scarab, which was apparently a family heirloom (see Pl. XIV:A; XIX:A).

Burials were found in all the other loculi, the number in each varying from one to three, generally, with as many as seven in Loculus 8. Evidences of cremation were also found in Loculi 2 and 8, but no urns or pots. It is possible, of course, that pots like the one found in Loculus 1 had been present, removed later and the contents dumped.

Bone analysis indicated that no fewer than 35 individuals had been

<sup>15</sup> Arthur D. Nock, "Cremation and Burial in the Roman Empire," HTR 25 (1932): 321, 327.

<sup>16</sup> Toynbee, Death and Burial, pp. 49-50.

<sup>17</sup> Avigad, "Herodian Jerusalem," p. 28.

buried in the tomb. If there had been other burials outside the loculi, the bones were too scattered and fragmented to present a clear picture.

Pathological features of the bone materials included arthritic conditions (frequent), abscesses in several of the teeth. Evidence also of considerable surface wear, on a number of the adult teeth, was probably attributable to grit material in the flour they had used.

Especially important for dating were three unbroken Herodian lamps immediately below the lamp niche on the east side of the main chamber. Probably all three lamps were jarred from the niche during the A.D. 365 earthquake and remained embedded in the Locus 13 ceiling debris until the excavation of the tomb.

Also significant was the absence of animal bones and, in particular, the bones of pigs. Traditional Roman funerary practices required that "only when a pig had been sacrificed was a grave legally a grave," and sometimes even pet animals were killed to accompany the soul into the after life.<sup>18</sup> The lack of animal bones and *triclinia*, the continual use of the tomb, the absence of painting and carved sealing stones for the loculi, all indicated that there was not a particularly active tomb cult at Tell Hesbân in the Roman period. Burial practices, especially those related to inhumation, were as much influenced by their Semitic surroundings as the well defined traditions at Rome.

An analysis of tooling techniques in F.31 indicated that all the work was done by one mason, utilizing only two basic wedge-shaped tools. The standard .009 m. chisel was in evidence throughout, also a flat-edged chisel that measured 0.01 m. at its most narrow point. The width and angle of the cutting strokes using these instruments in all the loculi were consistent. All loculi were rounded at the top in the front with cutting strokes angled down and inward. Half way back through the loculi the corners were squared and the ceiling was flattened out.

Architectural and ceramic evidence indicated that F.31 had a history that can be related to six distinct periods of time.

1. Its construction and first phase was attributed to the Early Roman II-III periods because of the very heavy concentration of Early Roman II-III sherds, though a few Late Roman pieces were found also in Locus 31. This locus, a light gray-brown, tightly packed silt deposit, with very few small lime chips, covered the entire bottom of the square depression in the floor. It was directly above Locus 32,

<sup>18</sup> Toynbee, Death and Burial, p. 50.



of the same extent, a very fine, tightly packed, light tan silt layer averaging 0.02 m. deep and containing no sherds or bones. The evidence pointed to the construction of the tomb about A.D. 70.

2. Tomb 31 also saw some use in the Early Roman IV period. Ceramic materials for this were also located in Locus 31 as well as Loculi 1 and 7.

3. Use continued throughout the Late Roman I-III periods, abundant evidence for this phase existing immediately adjacent to the sealing stone outside the tomb (Loci 4, 5, 6), as well as inside (Loci 30 and 31).

4 and 5. The tomb's heaviest use was in these phases. Evidences for the Late Roman III-IV usage were found in Loculi 1-7, 13 and 14, as well as in layers on the floor of the tomb and outside the entrance; and for the Early Byzantine I and II periods in every loculus with the exception of 14. Period 5 ended with the tomb's destruction, along with Tomb F.28, in the earthquake of A.D. 365. With only one exception, no pottery appeared inside Tomb F.31 which was later than this date—a single piece of Early Byzantine III-IV pottery, apparently intrusive, was found in Locus 13, an upper section of rubble fill that came down with the ceiling.

6. The final phase was the filling operation, probably in the Early Byzantine III-IV periods. Presumably, as in the case of F.28, a sizable depression was left in the ground that was unsuitable for agriculture. The great abundance of rock-carved vats and presses in the surrounding region with deposits attributable to this period seemed to indicate considerable agricultural activity.<sup>19</sup> Such activity probably continued with considerable intensity throughout the Ayyūbid/Mamlūk and Modern periods, judging from the ceramic materials near the ground surface.

## Cave F.34

In an effort to learn more about burial patterns associated with the Tell Hesbân occupational history (especially the Iron Age), exploration of four caves was undertaken. For the first time access was permitted to the caves in a privately owned orchard immediately below and west of Area C.

F.34, on the lower west slope of Tell Hesbân, was a rather large cave with some ceiling alteration in the form of arching at the back. A one-meter-wide probe trench was sunk in the cave on a line perpen-

<sup>&</sup>lt;sup>19</sup> See Waterhouse, "Areas E and F," p. 113.

dicular to the entrance face, and the same procedure was followed outside the entrance, in order to get an accurate stratigraphic profile of the cave's history. It appeared that the cave was used largely for domestic purposes, its earliest use in the Late Roman period evidenced by concentrations of sherds in Locus 4d, a layer immediately above bedrock. The cave was extensively used in the Early Byzantine III-IV periods, during which time a large circular cut was made in the bedrock. The southwest sector of the trench exposed only a portion of this circular cut.

The third phase of the cave's history, in the Late Byzantine period, yielded significant ceramic materials; a number of "wasters" indicated that pottery making was carried on at Tell Hesbân, probably in the immediate region.

The cave saw very heavy use in the Ayyūbid/Mamlūk period. Objects from this phase included a partially broken lamp, an iron ring, and glass fragments. The bones of sheep and goats were also evident.

In modern times the cave has been used largely as an animal pen or as an occasional shelter.

## Cave F.37

This large cave, located west of Tell Hesbân on the floor of Wadi el-Majarr, attracted attention because of noticeable plaster work on several portions of the ceiling, also several curves cut in the outer edges of the ceiling. In order to get a stratigraphic profile of the cave's interior, a 1.00 m. wide probe trench was laid at right angles to the entrance face and was continued 6.00 m. long to the back of the cave.

Suspicions about the use of the cave for burials were confirmed when two complete sarcophagi were uncovered, both intact but lidless and filled with soil. The first sarcophagus encountered was oriented north and south and ran directly across what had been assumed to be the cave entrance. Apparently the more ancient entrance was farther north. The two sarcophagi, which were butted against each other at right angles, were both very finely cut with a rounded outer contour between lip and base but no inscription or bas-relief decoration. A total of 34 bone fragments were removed from the sarcophagi and from immediately outside them in the corner at which the two met. In addition to a few cremated fragments, there were evidences of two human fetuses, one six-month-old infant and one child about a year old. This cave was especially interesting because further excavation revealed three more stone-cut sarcophagi—all five of them being arranged in a rectangular pattern around a *balat* floor that was very well cut, its blocks fitted with amazing precision. The three other sarcophagi had been not only robbed but apparently broken during times when the cave was used for domestic purposes. Sarcophagus 3 (counting from right to left) had a *tabun* in its northeast corner.

The use of this cave for burial purposes was interesting since it was far removed from the tell and not easily accessible.

The earliest use of the cave was traced to the Early Roman IV period but evidence for construction is later. It was during its second phase of use that the *balat* floor was laid and the sarcophagi were put in place. The construction of this burial site appeared to have been completed near the end of the Early Roman IV period. The stratigraphic profile against the two sarcophagi in the southwest corner indicated that the burials were first disturbed in the Early Byzantine period; the sarcophagi were probably robbed then and the bones scattered on the floor. Yet the use of the cave as a burial ground continued. In the west side of the cave, a disarticulated Late Byzantine burial with a lamp was discovered.

Bone analysis indicated that no fewer than 49 individuals were buried in the cave: 33 of them were fetuses, three newborn to sixmonths old, and four approximately one year old. Nine of them were adults. Fetus materials were found in abundance in the second through fourth phases of use (Late Roman III to Late Byzantine). Clearly the cave had a unique burial tradition which accounted for the large, well cut sarcophagi and a *balat* floor in such a remote setting.

The cave ceased to be used for burial purposes during the Umayyad period (the fifth phase), and domestic use was rather limited. In the final phase, the Ayyūbid/Mamlūk period, the cave was the scene of maximum domestic activity. To this phase belongs the small *tabun* constructed at the north end of sarcophagus 3. In modern times the cave was used as a temporary shelter or an animal pen.

#### Cave F.38

Smaller than F.37 but equally important as a burial site, was Cave F.38, located a short distance north of F.28. It was selected for a probe because it had features on the walls and ceiling that were like those noted in F.37. At its widest points, the cave measured 7.50 x 5.25 m. Two probe trenches were dug inside the cave. The first, measuring  $1.50 \times 2.00$  m., was dug at right angles to the entrance;

the second was dug from the east end of the main trench south to the wall.

The earliest attested use of the cave, attributable to the Early Roman III-IV period, appears to have been largely for domestic purposes; and if for burials, only to a limited extent. In its succeeding three phases, Late Roman I through Early Byzantine II, the cave was used frequently for burials. In the two probes undertaken, portions of 40 individuals were recovered, ranging from a fetus to an adult 70-80 years old. The bones of common domestic animals (sheep, goats, and donkeys) were very much in evidence.

Late Roman ceramic materials indicated the heaviest use of the cave for burials in that period. Objects from this period included bone hair pins, needles, bronze rings, beads, and bracelets. It was clear that although most of the bones were disarticulated because of grave digging for subsequent burials, there was no robbery of the cave. Furthermore, the presence of at least two articulated burials was evidence that this was not a repository for secondary interment.

Bone analysis indicated pathological problems similar to those encountered in other tombs of the period. Arthritis, tooth wear, and dental decay were quite common. One skull, that of a twelve-year old, had a hole in the top, indicating either a tumor which ate out the bone or a hole drilled for the purpose of alleviating pressure. In spite of continuous burial activity over a long period of time, relatively few of the bowls, dishes, and lamps were broken. There was no evidence that the bodies had been oriented in any particular direction, although the two articulated skeletons were oriented east-west.

The cave continued to be used for burials during the Early Byzantine I-II periods. A well preserved ring with a small cross probably belonged to this phase.

It was clear, therefore, that two distinct types of burial patterns were practiced at Tell Hesbân throughout the Late Roman and Early Byzantine periods. For the more wealthy or perhaps politically important people there were the rock-cut tombs. But for those of low social or economic standing the caves served as the final resting place. Possibly caves such as this were used to bury persons who died under special circumstances or who had no local relatives. There was no evidence that coffins were used in the cave burials. Presumably the bodies were wrapped in linen shrouds and buried in a fully extended position. The funerary objects were comparable to those placed in the tombs.

The final phases of Cave F.38's occupation were traced to the

Ayyūbid/Mamlūk period, when it was utilized solely for domestic purposes. During this time, while the south end of the cave was altered or expanded, the occupants of the cave apparently attempted to cut a large bench and in the process cut into the back end of a loculus which extended from a standard Early Roman tomb located to the south. It was probably then that the tomb was plundered. A small brooch, beads, and a well-cut crystal piece were discovered from this period. The crystal may have been used as part of an earring or bracelet, or worn on a necklace.

The cave was used also in the Modern period exclusively as a temporary shelter. The cave's burial history, therefore, was parallel to that of the cemetery history in Area F.

## Tomb F.40

The single-chamber Tomb F.40 was discovered to the west of Cave F.38 with a square-cut entrance comparable to other Roman tomb entrances in Area F. Access to the main chamber was gained by two small steps in the entrance and one large step inside the chamber itself. The entrance was found filled with soil and blocked by one large uncut rock on the outside, in front of which were larger field stones, perhaps part of the original deposit. Ceramic evidence immediately outside and inside the entrance indicated that the tomb had been opened in the Ayyūbid/Mamlūk period and probably emptied of all funerary objects. The general lack of ceramic materials both inside and outside the tomb indicated that it had very limited burial use.

The single chamber beyond the entrance did not have the customary loculi or the square depression in the floor. There was evidence for only one or two adult burials, with no funerary objects. Ceramic evidence on the floor indicated that the tomb was prepared at the end of the Late Roman or the beginning of the Early Byzantine period, and the burials then made. The tomb was not reopened again until the Ayyūbid/Mamlūk period.

If the tomb was completed, it represented a rather unusual architectural type for this period. It is possible, however that it was never completed. Unlike other tombs in the region it did not suffer from earthquake activity. There were several small cracks and fault lines inside the tomb as a result of earthquake activity, but no ceiling collapse as was noted in F.28 or F.31. The chamber itself was considerably smaller than those of the Early Roman tombs discussed above. It measured 3.18 m. at its widest point, and was 3.82 m. long.





## Fig. 13. Plan and section of Tomb K.1.

#### Cave F.41

A large cave located northeast of Tell Hesbân had several small arched chambers cut into the back of its ceiling, not unlike those of F.37 and F.38. A 1.00 m. wide probe trench, cut at right angles to the entrance face and continued to the rear of the cave, produced no evidence of burial activity. The cave was apparently utilized only for limited domestic purposes as a shelter in the Iron Age II period and through the Early Roman, Early Byzantine, and Ayyūbid/Mamlūk periods. The lack of domestic ware indicated that it served more as a temporary shelter or animal pen than for extended human occupation.

## Tomb K.1 (Fig. 13)

In previous seasons, tomb exploration was concentrated largely to the west and southwest of Tell Hesbân. A rather large cemetery was also located directly east of Tell Hesbân, with evidence of many shaft-type tombs first noted by walk-over in 1968. After several small probes, K.1 was located. It was a vertical-shaft Late Roman or Early Byzantine tomb, with the usual interior horizontal ledge on which square-cut stones were placed in order to seal the shaft (see Fig. 13). Four of the square-cut sealing slabs were found *in situ*. The east end of the shaft had been filled with large rocks, however, indicating that the tomb had been violated.

The shaft was widened at the bottom, forming an arcosolium on either side, and had three parallel troughs, oriented east-west, cut into the floor. Each of the arcosolia had a horizontal trough, and a smaller central one was cut between the two. The contents of the tomb had been disturbed, probably in the Ayyūbid/Mamlūk period, as indicated by Ayyūbid/Mamlūk sherds and a Mamlūk coin (Object 2879). Bone fragments indicated the burial of only one adult. Either other bone materials had decayed or they were removed during the robbery of the tomb. It was sealed and not reopened until expedition activity in 1976. The only objects from the tomb, in addition to the coin, were two parts of a glass bracelet.

#### Tomb K.2

Another similar shaft-type tomb, located just north of K.1, was opened for preliminary study and evaluation, but time did not permit complete excavation. The shaft entrance was similar to that of K.1. Three of the square-cut limestone sealing stones were intact, but all were in badly deteriorated condition. The shaft above the ledge was filled with heavy rubble.

Brief exploration inside brought to light a very well preserved bronze anthropomorphic bottle, probably used for cosmetic purposes. It had two rings which represented ears, originally attached to a chain to be worn around the neck. The stylized female form was characteristic of types from the Byzantine period.

A brief survey of Cemetery K indicated that this sector was extensively used in the Byzantine period and to a lesser extent during Roman times. The southwest slope of this hill contained an abundance of robbed-out shaft-type tombs. Several chamber-with-loculi tombs were located on the western slopes.

# Conclusion

Four seasons of tomb exploration at Tell Hesbân have given evidence of sizable populations from the Early Roman period through the Ayyūbid/Mamlūk periods. Burial patterns and customs were best attested for the Early Roman, Late Roman and Early Byzantine periods. That there was an Iron Age settlement at Tell Hesbân is clear from the mound itself, but burials from the Iron Age period continued to elude the excavators in spite of concentrated efforts to locate them.

Four seasons of tomb exploration have demonstrated that burial patterns were quite varied and were practiced in a wide variety of locales. Hills to the northwest and west of Tell Hesbân were used throughout the Roman period for burials, and Area F, the largest cemetery, contained a wide range of burial types beginning with the Early Roman through Late Byzantine periods.



A. Tomb F.27. View to south. Trough burials with sarcophagus lids. Photo: Paul H. Denton and Anna Eaton.



B. Tomb F.27. View to east. Loculi 5, 6, 7, left to right. Photo: Paul H. Denton and Anna Eaton.



A. Pottery and objects from Tomb F.27. Note especially the gold earring at bottom, center. Photo: Paul H. Denton.



B. Tomb F.28. View to east, southeast. Loculi 5, 6, 7, 8 (left to right) and arcosolium above them. Photo: Paul H. Denton and Anna Eaton.



A. Tomb F.31. View to east, from above. Photo: Paul H. Denton and Anna Eaton.



B. Tomb F.31. View to southeast. Separated silt deposits in the northwest corner. Photo: Paul H. Denton and Anna Eaton.



A. Pottery and objects from Tomb F.31: See Pl. XIX:A for closeups of scarab. Photo: Paul H. Denton.

B. Square G.4. View to south. Looking down long axis of cistern past Loci G.4:5, 6, 8. Photo: Paul H. Denton.

