

SURVEY AND EXCAVATIONS AT KHIRBAT KAZŪN 2004

Konstantinos D. Politis, Amanda M. Kelly and Lisa Usman

Introduction and Objectives

Survey and excavations were conducted at the cemetery of Khirbat Kazūn during April and May 2004. The work was an extension of the earlier rescue excavations conducted in 1996 and 1997 (Politis 1998: 611-614) with the objective to identify the full extent of the site. The main aim of the season was to complete all field work and studies at the site and prepare for final publication.

The project was sponsored by the Hellenic Society for Near Eastern Studies and supported by the National Geographic Society and the British Academy in collaboration with the Department of Antiquities of Jordan.

The Survey (Fig. 1)

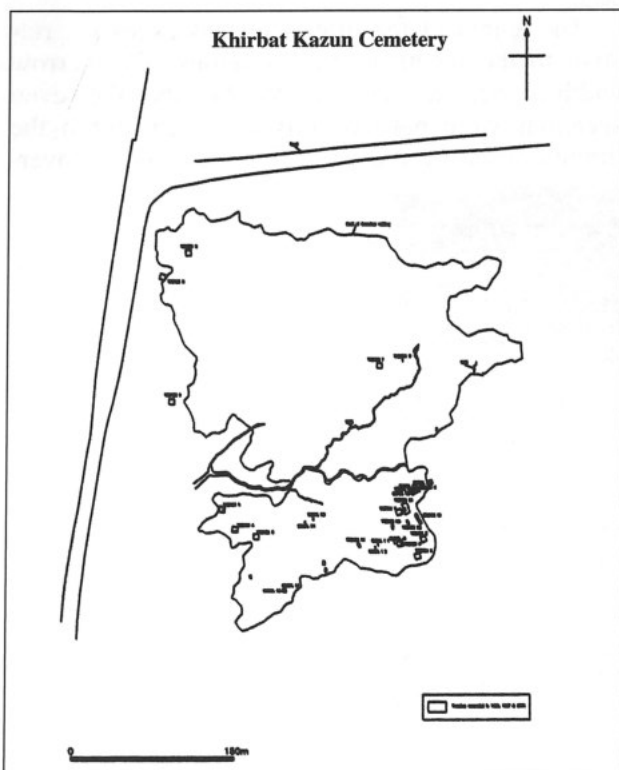
Trimble Global Positioning System (GPS) re-

ceivers were utilised to achieve an accurately georeferenced survey. A Fast Static (or Rapid Static) methodology was adopted to co-ordinate a number of stations around the site, some of which were new stations while others were from previous phases of work. These were then post processed to provide a millimetrically accurate 3D control network on the Universal Transverse Mercator (UTM) Zone 36 North co-ordinate system. Following this the Trimble GPS kit was used in Real Time Kinematic (RTK) mode to collect topographic data across the project area, allowing the collection of sub-centrimetrically accurate surveyed points within a few seconds. Using Trimble survey software loaded onto a hand-held data logger thousands of spot heights were recorded enabling post production of a Digital Terrain Model (DTM) and contour map of the cemetery. Also specific points of plan detail were recorded such as trench edges and specific tombs. Once control points from earlier phases were coordinated, all the survey work carried out to date could be referenced within the new geodetic survey framework.

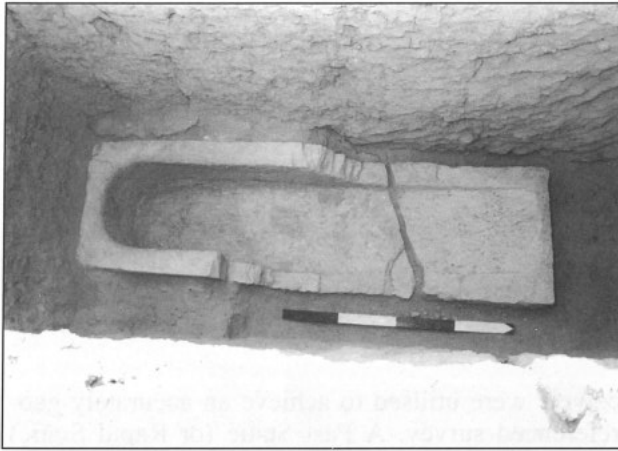
The Excavations

Trench P

Trench P was located on the south-eastern edge of the cemetery. The trench contained a series of robbed-out burials aligned on a north-south axis. The tops of the shafts were located at a depth of 0.30m below ground surface. One such shaft, measuring 2.50m long x 0.98m wide x 2.44 deep, contained a stone sarcophagus (P 005), which was partially visible at the base of the shaft. The sarcophagus measured 2m x 0.55m. The interior dimensions of the receptacle were 1.78m x 0.38m. The sarcophagus widened slightly towards its base. The sarcophagus was aligned on a north-south axis occupying a central position within the grave-cut (Fig. 2). The northern extent of the sarcophagus had been damaged by the tomb robbers but it was intact to the south. It was carved from limestone and was composed of four separate pieces: the base



1. Map of Khirbat Kazūn cemetery (by J. Severen).



2. Sarcophagus base *in situ*, Trench P (photo: T. Springett).

(one piece), the vertical sides (one piece) and two capstones (Fig. 3). The outer corners are sharply defined while the interior corners curve smoothly. The bones of an adult male were found among the surface spoil to the west of the grave-cut and, consequently, it is likely that the grave represents that of a relatively wealthy individual within the cemetery. The dimensions of the shaft are by far the largest in the cemetery while the sarcophagus itself remains a unique feature within the cemetery of 5,000 tombs.

Trench R

Trench R was located in the western area of the cemetery, directly over the Dead Sea highway. The area had been bulldozed and no distinguishable features were visible on the surface. The upper layer (R 001) was removed to a depth of approximately 0.30m. The layer contained Early Bronze Age pot-

tery sherds, which had been washed down slope from the hills above and to the east of the site. When this layer was cleared the cuts of two substantial tombs became evident (Graves R1 and R2). Both graves were arranged on an east-west alignment.

Grave R1 was located in the northern sector of the trench. The upper fill of this grave (R 002: the fill above the capstones) had a depth of approximately 0.70m and contained a fragment of a glass bracelet and the base of a Late Roman pot. When this upper fill was removed five capstones (R 003) appeared at a depth of approximately 1m below ground surface (Fig. 4). The base of a pot was found just over the westernmost capstone of the grave, and possibly acted as a grave marker. The capstones themselves consisted of roughly hewn limestone slabs. The slabs were substantial, with the largest capstone (the easternmost example) measuring 1.20m x 0.60m. The spaces between the slabs were plugged with smaller water-rolled stones, some of which were also set along the edges of the slabs.

The fill of the shaft below the capstones was cleared (R 0005) and contained some crudely made pottery. The grave-cut under the capstones measured 2.84m x 0.60m (maximum width) and tapered to the east. The grave contained seven individuals extended with the skulls to the west and feet to the east.

The length of the grave-cut was excessive relative to the length of the skeletons. The narrow width of the grave-cut, and the fact that the seven skeletons were not carefully arranged within the limited space of the grave cut, resulted in over-



3. Sarcophagus fragments of vertical and capstones, Trench P (photo: T. Springett).



4. Grave R2, capstones (photo: K. D. Politis).

lapping limbs and a confusing array of bone (Fig. 5). Finds included an iron bracelet (registered object KQ no. 46), a glass-bead necklace (registered object KQ no. 47) and a copper ring (registered object no. 48).

The second grave in Trench R (Grave R2) was located in the southern half of the trench and was similarly arranged on an east-west alignment. The upper fill of the grave-cut (R 008) yielded a shell bead. The capstones (R 009) were located at the same depth as those of Grave R1 (i.e. approximately 1m below ground-level). Only four capstones sealed the lower grave-cut (measuring 0.90m x 0.60m, 1.05m x 0.55m, 1m x 0.65m, 1m x 0.85m) (Fig. 6). The grave-cut under the capstones measured 2.30m x 0.26m. It contained four skeletons positioned with the skulls to the west and the feet to the east. The three uppermost skeletons were youths and represented secondary interments (Fig. 7). They were not carefully positioned within the grave-cut, and again frequently-overlapping limbs were a feature. The lowest skeleton was that of an adult and was evidently the primary interment. The skeleton was supine and neatly laid-out in the centre of the grave-cut with arms and legs fully ex-



5. Grave R1, overlapping skeletons (photo: K. D. Politis).

tended. A series of polished semi-precious stone beads attached to copper mounts were found around the neck (registered object KQ no. 49). A stone pendant was also found associated with these beads. The skeleton's central position, orderly deposition and elaborate necklace clearly mark this skeleton as the primary inhumation.

Other than jewellery, no further grave-goods were found in either grave, which contained twelve individuals between them. The distinct form of the grave incorporating multiple burial and large sealing stone slabs suggests that they are distinct from the predominant type within the cemetery.

Trench S

Trench S was located on the north-facing slopes to the north of the cemetery. Two large rim fragments of Red Slip pottery (Hayes 1972: form 67) dating to the late fourth century AD were found on the surface of the trench. A stone grave-marker with an incised cross was also collected from the surface of the cutting, although it was not found *in situ*. The topsoil removed from the trench (S 001) contained spoil from robbed tombs as it yielded scraps of textile with applied shells, bone bracelet



6. Grave R2, capstones (photo: K. D. Politis).

fragments, iron bracelet fragments, a copper alloy finger ring (registered object no. 44), a copper alloy earring (registered object KQ no. 45) and Roman-Nabataean fine-ware. The layer beneath this (S 002) also yielded iron fragments and small pieces of wood.

The trench contained two graves arranged on a north-south alignment (Graves S1 and S2). Unfortunately, both had been robbed but their simple construction was still apparent. Both graves were cut directly into the natural sterile soil without any revetment. Grave S1, although robbed, yielded textile fragments (similar to those from layer S 001), a fragment of an iron bracelet and a fragment of a bone bracelet. The grave-cut was small (measuring 1.70m x 0.78m) and a narrower *loculus*, measuring 1.5m long x 0.24m-0.40m wide x 0.24m deep, in the centre of the base of the grave-cut would have held the skeleton. The small dimensions of the cut, together with and a primary tooth found in the fill clearly indicate that the grave was that of a child.

A second larger grave, measuring 2.06m x 0.70m, was found in the east of the trench. The grave had also been robbed. One possible capstone



7. Grave R2, upper skeletons (photo: K. D. Politis).

survived at the north of the grave-cut. It is possible that capstones originally sealed a narrow centrally-located compartment (measuring 1.8m long x 0.50m wide x 0.40m deep) at the base of the grave-cut. A fragment of a worked bone bracelet, similar to that from grave S1, was found in the fill (S 005).

Trench T

Trench T was located in the central area of cemetery to the south of a triple power pylon. The ground surface of the trench sloped from north to south. The topsoil (T 001) had a depth of 0.9m in the north of the trench and was composed of numerous small water-rolled stones in a compacted clay matrix. The second layer (T 002) was composed of sterile marl into which the grave shafts were cut. Two parallel shaft graves (Graves T1 and T2) were discovered cut into this layer. Both graves were aligned on a north-south axis with *loculi* undercut to the east. In both cases the skeletons were aligned south-north i.e. with the skulls to the south. Both *loculi* were sealed by a series of five adobe bricks which were propped at an angle against the east wall of each shaft.

The shaft of Grave T1 measured 2.30m long x 0.40m wide. The shaft was 1.12m deep and widened to 0.50m as it descended. The five adobe bricks sealing the *loculus* were coated with a film of mud, 0.05m-0.10m thick, which effectively sealed the underlying compartment. Occasional water-rolled stones were also used to plug wider holes between the adobe bricks, which were then smeared over with mud. The size of the adobe bricks (T 004) was consistent, each measuring 0.40m x 0.40m x 0.10m thick. Grave T1 held an extended articulated female adult skeleton with arms crossed over the chest. Some textile survived but no grave-goods were found.

Grave T2 was located ca. 1.6m east of T1, to which it ran parallel. The shaft was 0.82m deep and the measured 2.08m x 0.45m. The shaft was aligned on a north-south axis with a *loculus* undercut to the east. Again the *loculus* was sealed with adobe bricks (measuring 0.40m x 0.40m x 0.10m), which were smeared with a film of mud. Two of original five adobe bricks had disintegrated and collapsed (Fig. 4). The eastern *loculus* held a single extended male skeleton with the skull to the south, the head facing east, the body slightly flexed to the east, with arms crossed. The feet had been removed and placed to the east of the skull. The compartment also yielded fragments of wood and numerous metal studs/nails indicating the use of some form of wooden coffin.

Trench U

The trench was located in the east central area of the cemetery on the north-facing slopes of a small wadi. The terrain sloped from south to north and the northern half of the trench was full of silt deposited by the wadi. The topsoil within this trench (U 001) was 0.20m-0.30m deep in the southern half of the trench. The topsoil was essentially loose sand and contained some Roman-Nabataean fine wares, Roman buff wares and a Roman strap handle.

Trench U contained a single robbed-out grave (Grave U1). The grave-cut measured 1.9m long x 0.5m wide and 1.20m deep. The grave-cut contained a *loculus*, which was undercut to the east. An adobe brick found in the fill would suggest that the *loculus* was originally sealed with adobe bricks in a manner similar to the graves in Trench T.

A disarticulated child's skull was retrieved from the fill but disarticulated adult bones (including vertebrae) were also collected. Hair was also found in quantity. Large fragments of a Roman tunic, cord and fragments of other woollen textiles were also found in the disturbed fill. The

tunic fabric was yellow with two parallel purple stripes (*clavi*) on either side. It was identical to the tunic found in Grave W (discussed below) and fabrics found in previous excavations at Khirbat Kazūn (Granger-Taylor 2000). An iron ring was found in the fill.

A flat-based circular cut (with a diameter 0.70m and a depth 0.22m) with a charcoal-rich fill was discovered to the west of Grave U1 and seems to represent a small hearth possibly for cooking (Fig. 8). This feature may be related to a basalt grinding stone found on the surface of the trench.

Trench V

This trench was full of sterile silt deposited by a nearby wadi. No graves were found.

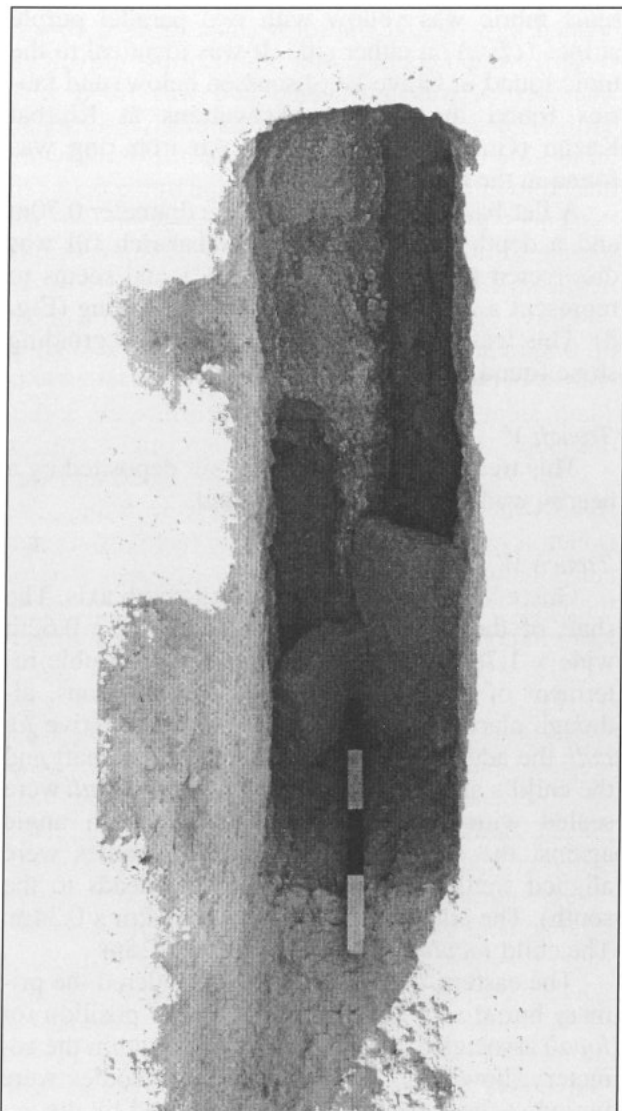
Trench W

Grave W was aligned on a north-south axis. The shaft of the tomb measured 2.22m long x 0.62m wide x 1.76m deep. It contained a rare double interment of an adult and child. The skeletons, although placed in the same shaft, had distinctive *loculi*; the adult's along the east side of the shaft and the child's along the west (Fig. 9). Both *loculi* were sealed with adobe bricks propped at an angle against the sides of the shaft. Both bodies were aligned south to north (i.e. with the heads to the south). The adult *loculus* measured 2.22m x 0.34m. The child *loculus* measured 1.48m x 0.25m.

The eastern *loculus* could be considered the primary burial as it adheres to the regular position for *loculi* associated with this grave-type within the cemetery; however, it is clear that both bodies were buried at the same time, as is suggested by the actual dimensions of the shaft and is confirmed by



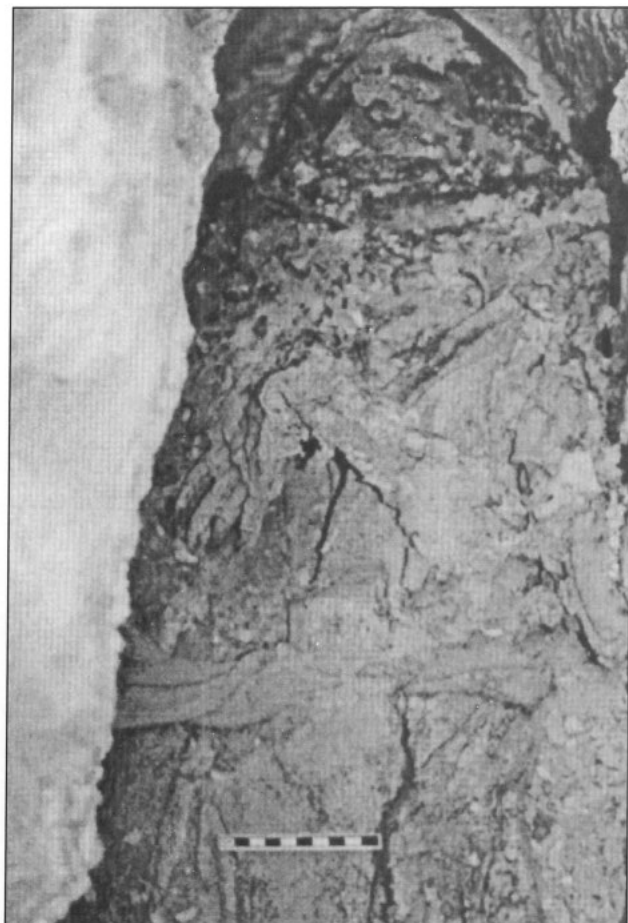
8. Circular hearth, Trench U1 (photo: A.M. Kelly).



9. Double shaft burial, Trench W (photo: A.M. Kelly).

the uniformity of the shaft's fill. The adult *loculus* is undercut to the east and sealed with the usual five adobe bricks. The child's *loculus* was located along the west of the shaft, with only marginal undercutting of the shaft on this side. It was sealed with three adobe bricks.

The body of the adult survived in a remarkable state of preservation and was lifted almost intact; skin, nails and textiles survived (Fig. 10). The body was clothed in a Roman tunic (with yellow weave and two purple *clavi*). The tunic seems to have been repaired in places. A woollen belt was tied across the waist and over the right arm, which secured this arm to the side of the body. The left arm was slightly raised over the stomach due to its desiccated state. The face was covered with textile and a leather covering of some sort. Strands of cord, visible through the leather covering, also tied the



10. Adult burial, Trench W (photo: A.M. Kelly).

hair. Leather also extended over the feet, which were less well-preserved than the upper torso.

Trench X

This trench was full of sterile silt deposited from a nearby wadi and no tombs were found.

Trench Y

Trench Y was located to the east of Trench T. The topsoil (Y 001) was composed of compacted grey stony soil with occasional glass but even fewer ceramic sherds. The tops of two shafts were discovered when the upper layer was removed.

The shaft of Grave Y1 measured 1.95m x 0.50m, x 1.60m deep, and was aligned along a north-south axis, almost parallel to Graves T1 and T2. The *loculus* was undercut to the east and again sealed with five adobe bricks each measuring 0.40m x 0.40m x 0.10m. The skeleton (that of an adult male) was positioned with the skull to the south and feet to the north. The left arm was bent over the chest and the right arm was bent back so that the hand was positioned near the skull. Wood samples were taken from areas near the head, feet

and hips, again indicating the use of a wooden coffin. Date stones were also retrieved.

Grave Y2 was located to the south of Grave Y1 and the shafts shared the same format and rough dimensions (measuring 1.98m x 0.62m x 1.48m deep). Grave Y2 was aligned on a north-south axis and adobe bricks sealed the *loculus*, which was undercut to the east. Of the five original adobe bricks (measuring 0.40m x 0.40m x 0.10m), the two southernmost examples had been removed and the tomb had been robbed.

Trench Z

Trench Z was located at the southeast extent of cemetery. Two graves were discovered after the topsoil had been removed (for a depth of between 0.30m-0.60m), revealing a compact sterile soil into which the shafts were cut.

Grave Z1 was again arranged on a north-south axis with the skull to the south. Five adobe bricks sealed the *loculus* but an extra adobe brick, set on end, was needed to close the northern end. The grave shaft measured 2.24m x 0.52m and 1.24m in depth. The grave-cut was much longer than necessary to contain the adult skeleton within, with the cut extending 0.50m to the north beyond the feet.

The skeleton (identified as female) was in moderately good condition with fragile textile surviving around the chest and pelvis and over the lower skull. Desiccated flesh survived on the face and the bridge of the nose survived. Residue was also intact in the eye-sockets. The skull tilted slightly to face east.

Grave Z2 was located in the south of the trench, 2.10m south of Grave Z1, and contained a child burial in a simple cut. This grave-cut measured 1m x 0.38m (0.68m deep) and was aligned on a north-south axis, with the skull to the south. The child's skeleton was flexed to the east (i.e. positioned on its right side). The child was wrapped in leather and wore small copper alloy ankle bracelets (registered object KQ no. 50) on each leg.

Trench Θ

Trench Θ was located in a heavily bulldozed area to the west of the cemetery above the Dead Sea highway. The topsoil (Θ 001) was removed to a depth of 0.30m and yielded creamy buff finewares with relief decoration. Three graves occupied the trench and were markedly different from any other graves in the cemetery.

The grave-cut of Grave Θ 2 measured 2.20m east-west x 1.10m north-south. At a depth of ca. 0.80m a narrow *loculus* (measuring 2.20m long x 0.38m wide x 0.35 deep) was discovered along the south side of the grave-cut. This feature essentially

created a wide flat platform (measuring 2.20m x 0.72m), which occupied the north of the grave-cut. The *loculus* was not sealed and was filled with earth. The skeleton within was carefully positioned on its side to face south. Small natural stones were placed to either side of the head and at the backs of the knees to anchor the body in position. No associated grave goods were found although fragile textile still adhered to the skeleton.

Grave Θ 3 measured 1.88m x 0.78m. At a depth of 0.55m a *loculus* (measuring 1.88m x 0.28m, with a depth of 0.30m) was discovered along the south side, again creating a platform area within the north of the grave-cut (measuring 1.88m x 0.50m). Again the *loculus* was not sealed and was filled with earth. No grave-goods were found. The skeleton was positioned on its side facing south and small natural stones were placed to either side of the head and at the backs of the knees to hold the body in position (as was the case with Grave Θ 2).

Grave Θ1 (1.32m x 0.30m) was unusual in that it lacked the platform feature and consisted of a simple cut. The skeleton was placed on its back but the head was turned to face south. The left arm was slightly bent over the lower vertebrae with the hand placed on the pelvis. The grave-cut was also cut at a higher level (ca. 0.40m higher) than that of Θ2 and Θ3 and its proximity (and the slightly different arrangement of the skeleton) to the former two cuts suggests that it was a slightly later burial. No grave goods were found.

The three graves in Trench Θ share common attributes, despite some notable specifics related to Grave Θ1. All three graves contained one skeleton each, aligned on an east-west axis with the skulls to the west, with the heads facing south in every case. The bones of all three skeletons were tainted purple and so was much of the desiccated flesh. Grave-cuts Θ2 and Θ3 were significantly wider than Θ1 as the latter lacked the platform feature, which occupied the northern side of grave-cuts Θ2 and Θ3.

Trench Σ

Trench Σ was located 2m due north of Trench Θ in a heavily bulldozed area to the west of the cemetery above the Dead Sea highway. Similar burial types were found in both cuttings. Four graves were found in Trench Σ and three of these burials contained platform features.

Grave Σ1 occupied the southeast corner of the trench and contained an adult skeleton. Again a *loculus* was cut along the southern side of the wide grave-cut creating a platform within the north of the cut. The *loculus* was not sealed and was filled with earth. Again the skeleton was propped into po-

sition on its right side. A large potsherd was found behind the right knee, securing it in place.

Grave $\Sigma 2$ was located in the west of the trench and contained a young child and Grave $\Sigma 4$ was located in the northeast corner of the trench. All three graves were aligned on an east-west axis with a *loculus* along the southern side of the grave-cut essentially creating a platform which occupied the northern area of the grave-cut. The *loculi* were not sealed and were filled with earth. All of the skeletons shared the same orientation and arrangement as those in the similar grave types in Trench Θ i.e. the skeletons were laid out along an east-west axis with the skulls to the west. The skeletons were propped on their right sides facing south.

Conversely, Grave $\Sigma 3$ was positioned between $\Sigma 1$ and $\Sigma 4$ and consisted of a simple grave-cut similar to $\Theta 1$. Grave $\Sigma 3$ lacked a platform feature and, as was the case in $\Theta 1$, the skeleton was supine with its skull facing south. All the graves in Trench Σ were back-filled.

The Human Remains

Introduction

The following preliminary report examines the skeletal remains, giving only an estimated age and sex of the bodies excavated and not pathology, trauma, disease or comment on any other possible areas of interest. This is due to time constraints that prohibited a more detailed study of the material and it is expected that these remains will be studied in greater detail at a future date.

Prior to excavation it was predicted that the material uncovered would be in a good state of preservation due, primarily, to the arid nature of the area and the condition of the material excavated in the 1997 season. This proved to be the case in the graves that contained only a single burial and where the soil did not come into direct contact with the remains. Conversely, when more than one body was found, and the bodies had been covered in soil rather than being placed in a cavity (Trench R, Graves R1 and R2), a very poor state of preservation was observed, especially in the lower burials. This could be the result of the decomposition fluids of the upper bodies affecting the condition of those below. Consequently, for the multiple graves, it was not possible to estimate the age and sex of all the bodies present. In these cases it was only possible to determine the number of skeletons present by the remains of the skulls found.

Trench R Grave R1

Seven burials were identified in this grave. In-

itially, when the bones were exposed, three skeletons were visible. All bodies were extended along an east-west axis, with the skulls to the west. The skeletons did not appear to have been carefully laid out, but rather deposited on top of each other with limbs falling in different directions. It was initially assumed that the three upper skeletons represented the total number of bodies present; however, as the skeletons were excavated it became apparent that the grave contained four further interments. As mentioned in the introduction, the condition of the bones deteriorated with the lower skeletons, making determination of age and sex in the lower burials almost impossible.

Skeleton 1 Grave R1

The skull of the first skeleton to be lifted was crushed; therefore, the pelvis was used to determine sex. It is likely that this skeleton was that of a young male aged between 16-18 years of age. The age was determined by establishing which bones had fused and the number of molars present in the remains of the skull.

Skeleton 2 Grave R1

All the bones of this skeleton were fully fused and all the teeth had erupted. The skull had been crushed but was held together by soil. The pelvis was very fragmented, but evidence of slight billowing on the auricular surface was evident. From the examination of the skull and the less damaged areas of the pelvis it was estimated that the skeleton was that of a female aged between 20-25 years of age.

Skeleton 3 Grave R1

All the bones of this skeleton appeared to be fully fused and all the teeth had erupted. While it was clear that this was the skeleton of an adult, it was not possible to determine the sex or age.

The bones of the next four skeletons were very fragmented and both age and sex determination was difficult. An attempt was made to sex them using the skull, but aging was impossible. It should be noted that it was not always clear which bones belonged to which skeleton in R1. While every care was taken to prevent any mixing of bones, it was not always clear which bones belonged to which skeleton. The possibility of such an event must be considered when interpreting the results.

Skeleton 4 Grave R1

A tentative sexing was made based on the mastoid process and the glabella ridge; both of which suggested that this was the body of a male.

Skeleton 5 Grave R1

The mastoid process and the supra orbital ridge suggested that this was also the body of a male.

Skeleton 6 Grave R1

It was not possible to make a meaningful interpretation from the remains of this skeleton.

Skeleton 7 Grave R1

This skeleton had a small mastoid process and the pelvis had not completely fused. It was not possible to determine with absolute certainty the sex or age of the skeleton, although an age somewhere in the early 20's or younger is probable.

Trench R Grave R2

This grave yielded four bodies in total. All the bodies were extended from west to east. Excavations of the grave initially revealed two burials. Once again, these bodies were extended and deposited in the grave without any formal positioning. As the excavation of the grave progressed another two bodies were revealed. The third body, like the first two, appeared to have been deposited without any formal positioning in the grave, while the fourth body had been carefully laid out. These factors, combined with the size and cut of the grave, indicated that the last burial had been the primary burial while the other three represent secondary burials. It is reasonable to infer that the lower body in Grave R1 had also been laid out in this fashion, unfortunately, its very poor state of preservation made this impossible to determine.

Skeleton 1 Grave R2

The pelvis, long bones and vertebrae had not completely fused and the second upper molar had not fully erupted indicating that this was the skeleton of an adolescent. The skull and pelvis appeared to have more male characteristics than female, but it cannot be said with certainty that it is a male.

Skeleton 2 Grave R2

All the teeth had erupted including the third molars. All bones had fused, except the upper portion of the sacrum and the clavicle indicating an age estimation somewhere between 24-30 years. This skeleton appeared to be that of a female, although the frontal bone exhibited more male characteristics. The pelvis was very fragmented making sex determination using this method impossible.

Skeleton 3 Grave R2

This was the skeleton of a child. The bones were small and many were not fused. The third

molars and the canine in the lower jaw had not erupted. It was not possible to determine sex. It was estimated that the age at death was in the region of 8-12 years of age.

Skeleton 4 Grave R2

This skeleton was that of a large adult with the pelvis exhibiting male characteristics; however, a necklace of polished semi-precious stone beads attached to copper mounts was found placed around the neck. No other grave goods were found. The necklace might suggest that this constitutes the skeleton of a female although jewellery is not an absolute indication of gender and is often ambiguous in its implications.

Trench T Grave T1

This was the skeleton of an adult female. All the bones had fused and both the pelvis and skull exhibited female characteristics.

Trench T Grave T2

The skull and mandible had both been crushed by mud and stones, which had fallen from the top of the shaft; however, it was possible to study the skull while it remained in situ. The upper portion of the coccyx and the clavicle had not fused. There was also evidence of billowing on the body of the lumbar vertebrae. It was estimated that this was the skeleton of a male aged between 18-20 years of age.

Trench U Grave U1

This grave had been looted. A disarticulated child's skull was initially exposed, however, no other bones believed to be associated with this skull were found. Further excavation revealed disarticulated remains of an adult burial. It seems likely that the grave contained an adult and a child, but this is not clear. Two humerus bones were found, but not of equal length; one being 3.5cm longer than the other. It is unlikely, but not impossible, that the smaller of the two bones belonged to the child burial. Yet, even though it was shorter, it was still large relative to the size of the skull. No adult skull was found. A fully-fused clavicle was also present and, as this is the last bone in the body to fuse on the sternal end, it indicates that this adult was at least 25-30 years of age.

Trench W Grave W1

The grave contained two burials, an adult and child, both aligned on a north-south axis, with the heads located to the south. The adult burial demonstrated a remarkable degree of preservation and

was lifted almost intact. The adult was almost completely covered in a textile shroud making an estimation of sex or age impossible.

Trench Y Grave Y1

The grave followed a north-south axis, with the skull to the south. The grave contained the skeleton of an adult male. All the bones had fully fused and both the skull and pelvis clearly exhibited male characteristics. The age is estimated to be in the region of 30-35 years.

Trench Y Grave Y2

Grave Y2 represents a looted tomb.

Trench Z Grave Z1

This grave was orientated along a north-south axis, with the skull to the south, and contained the skeleton of an adult female. Both the skull and pelvis were that of a female and all the teeth, including the third molars, had erupted.

Trench Z Grave Z2

This grave, also orientated along a north-south axis, with the skull to the south, contained the skeleton of a child. It is estimated that the child was between 2-3 years of age. Sex is unknown.

Trench Θ Grave Θ1

This grave contained a single adult burial, which followed an east-west axis (with the skull to the west). The morphology indicated that the skeleton was that of a male; however, the ventral arc on the pelvis exhibited certain female characteristics. Nonetheless, it is believed that this is just a natural variation of the skeleton, as all other areas that indicate sex were clearly male. Age is estimated to represent an older male, probably 40-50 years of age. Apart from the normal indications of age, the skeleton showed evidence of osteoarthritis in the lower vertebrae.

Trench Θ Grave Θ2

This grave, also orientated along an east-west axis (with the skull to the west), contained the skeleton of an adult female. All the bones were fully fused and all the teeth had erupted. The mandible was quite heavy, but all other signs pointed to a female classification. Age was estimated somewhere between 30-35 years.

Trench Θ Grave Θ3

This grave contained the skeleton of an adult female. All the bones were fully fused and all the teeth had erupted. The molars showed evidence of

considerable wear, with the enamel completely worn away revealing the dentine. Parts of the suture between the occipital and the parietal bones in the skull have completely fused. Age was estimated somewhere between 35-45 years.

Grave Typologies

Grave-type A represented the predominant grave-type in the cemetery and included Graves T1, T2, U1, W (both inhumations), Y1, Y2 and Z1. The grave-type consists of a shaft grave with a *loculus* undercut to the east at the base of the shaft. This undercutting is sealed by adobe bricks propped at an angle against the east wall of the shaft. The grave is orientated north-south, with the skull to the south in every case.

This is the most characteristic grave-type found at Khirbat Kazūn and is particularly important in relation to similar graves first discovered at Khirbat Qumrān (Politis 2005: 149-151).

Type A	Length of shaft (north-south)	Width of shaft (west-east)	Depth of shaft
Grave T1	2.30m	0.40m	1.12m
Grave T2	2.08m	0.45m	0.82m
Grave U1	1.90m	0.50m	1.20m
Grave W	2.22m	0.62m	1.76m
Grave Y1	1.95m	0.50m	1.60m
Grave Y2	1.98m	0.62m	1.48m
Grave Z1	2.24m	0.52m	1.24m

Grave-type B is the type found to the northwest of the cemetery, specifically in Trench R. These graves are aligned along an east-west axis, with the skulls to the west. Large roughly-hewn slabs seal the grave-cut which tapers slightly to the east. The graves are multiple and in one instance (i.e. Grave R) contained seven individuals.

Grave-type C is the type found to the west of the cemetery (represented by graves Θ2, Θ3, Σ1, Σ2 and Σ4). These graves are orientated east-west but, as opposed to those in Trench R, each grave contains only a single burial. Most of the skeletons associated with this grave-type have been positioned on their right sides, facing south, and secured in this position with the aid of small stones. No grave-goods accompanied the bodies. These five graves contained a narrow *loculus*, in which the skeleton was laid out, forming a wide platform feature within the northern section of the grave-cut. None of the *loculi* were sealed and were all filled with soil.

Grave-type D (represented by graves Θ1 and Σ3) is the type found in association with type-C

graves. These graves are composed of a simple cut and lack the platform feature associated with type C. The skeletons are supine with the head turned to face south. The left arm was slightly bent over the lower vertebrae with the hand placed on the pelvis.

Grave-type E is characterised by a stone sarcophagus and is represented by one unique shaft grave in Trench P in the southeast of the cemetery.

Grave-type F is represented by two robbed-out tombs to the southeast of the cemetery and is characterised by a rectangular receptacle constructed of adobe bricks. The receptacle is located centrally at the base of the shaft. This *loculus* was capped with horizontal adobe bricks, which sealed the receptacle.

Summary and Conclusions

In total twelve trenches (each measuring 5m x 5m) were opened in various areas of the cemetery. The objectives of this strategy was to help establish the variety of tomb types throughout the cemetery and the chronological sequence of various areas of the cemetery.

A total of 20 new graves were recorded and DNA samples were taken from all of the intact skeletons in order to help ascertain the ethnicity of the interments and whether specific tomb types are indicative of ethnic/cultural groups.

A complete contour survey of the cemetery was conducted incorporating previous excavation areas. Finally a digital map was produced recording all natural features and excavation trenches.

It is hoped that with the 2004 field season in addition to the previous work completed at Khirbat Kazūn, sufficient material evidence will be made available to understand the nature of this key site in the context of the Dead Sea region during the Late Roman period.

The Staff

The archaeological excavations were conducted by Amanda Kelly with the assistance of Salha Sulieman Ghareeb and Lisa Usman, physical anthropologist. The survey was carried out by Joseph Severin with the assistance of Neil Brodie. Leslie

Acton was the conservator, Caroline Hebron illustrated the finds and Trevor Springett was the photographer. The Department of Antiquities was represented by Imad al Drous and Mohammed Zahran Hashoush. Locally hired workers included Mohammed Ahmed Muslim Atawheh, Mohammed Ibrahim Muslim Atawheh, Ziad Suleiman Muslim Ataweh and Noor Al-din Khaled Abdel Latif. The project was directed by Konstantinos Politis.

Acknowledgments

The project is grateful to the Director-General of Antiquities, Dr. Fawwaz al-Khraysheh and his staff for granting permission to work at Khirbat Kazūn. Thanks are due to the Jordan Valley Authority for allowing the project to use one of its housing units in Mazra'at Sekine. The survey equipment was loaned from the Museum of London Archaeological Service (MoLAS) and the Municipality of Safi with the assistance of Mr. Awni Sha'ath.

Konstantinos D. Politis,
Hellenic Society for Near Eastern Studies,
Athens, Greece
kdpolitis@hsnes.com

Bibliography

- Granger-Taylor, H.
2000 The Textiles from Khirbat Qazone (Jordan). Pp. 149-162; pl. 2, fig.9 and 4. in *Archeologie des textiles des origines au Ve siecle. Acte du colloque Lattes, octobre 1999*. Editions Monique Mergoïl, Montagnac.
- Hayes, J.
1972 *Late Roman Pottery*. London.
- Politis, K. D.
2005 The Discovery and excavation of the Khirbat Qazone cemetery, and its significance relative to Qumran. Pp. 149-151 in *Qumran – The Site of the Dead Sea Scrolls: Archaeological Interpretations and Debates*. Conference held at Brown University, November 17-19 2002. Boston: Brill Academic Publishers.
- 1998 Rescue Excavations in the Nabataean Cemetery at Khirbat Qazone 1996-1997. *ADAJ*42: 611-614.