# The Tumuli at Sé Girdan: Second Report

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IN JULY OF 1970 the Hasanlu Project, under the joint sponsorship of The Metropolitan Museum of Art and the University of Pennsylvania, began its second campaign at Sé Girdan, situated in the Ushnu valley in northwestern Iran.<sup>1</sup> It will be recalled that Sé Girdan is a cemetery consisting of eleven tumuli of various sizes near the modern village of Cheshmé Göl and below the recently discovered Urartian site of Qalatgah.<sup>2</sup> The campaign of 1968 had been basically a survey resulting in the partial clearing of the largest tumulus there, designated I, the excavation of a small plundered tumulus, II, and the excavation of an intact tumulus, III.

The aim of the second campaign was to excavate three additional tumuli and to complete the excavation of Tumulus I with the view to learning something about the culture and chronology of the people buried in the cemetery, since information of this sort had not been firmly established in the first season. Our season

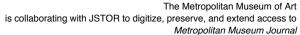
1. Oscar White Muscarella, "The Tumuli at Sé Girdan: A Preliminary Report," *Metropolitan Museum Journal* 2 (1969) pp. 5 ff. (hereafter *Sé Girdan I*). Credits for the drawings in this first report are as follows: figs. 12, 15, 16 are by Carol Hamlin; figs. 6, 7, 10, 17, 18, 19, 22, 23 are by the author; the tracings from field notes and subsequent inking are by Maude de Schauensee. In the present report initials are included with the drawings; Marie Miller did the inking of the drawings. I wish to thank all for their help and cooperation in these undertakings.

2. Sé Girdan I, p. 5, note 4; a discussion of Qalatgah by the author will appear in a future issue of *Expedition*. For a discussion of other Urartian sites in Iranian Azerbaijan see W. Kleiss, "Bericht über zwei Erkundungsfahrten in Nordwest Iran," *Archaeolo*gische Mitteilungen aus Iran 2 (1969) pp. 20 ff.; and W. Kleiss, did not begin until two weeks later than planned, and we were therefore not able to complete the clearing of Tumulus I. We were, however, able to excavate three of the other tumuli in the area, called IV, V, and VI.<sup>3</sup> On the plan published in *Sé Girdan I*, fig. 2, these tumuli are labeled E, F, and G.

## TUMULUS I

Work was concentrated on the completion of the wedge-shaped trench begun in 1968 in the southern part of the northwest quadrant (*Sé Girdan I*, figs. 3, 5). Although we assumed that the tomb would not be found here, it was thought best to finish this area in order both to get a complete section of the tumulus and to uncover at least part of the rubble stones that we assumed would be overlying the tomb. If the rubble stones could be cleared and measured, we would presumably get information about the position of the tomb.

3. The season began on July 17 and ended on August 27. The staff consisted of the author as director and Michael Nimtz (University of Pennsylvania), Karen Rubinson (Columbia University), and Betty Schlossman (Briarcliff College) as archaeologists; Robert Lewis surveyed and oriented the tumuli. Agha Nozar Sepheri was the able assistant to the director, and Agha Ardeshir Ferzanegan was the representative of the Iranian Archaeological Service. My aim in both *Sé Girdan I* and the present report is to publish the archaeological results as quickly as possible. I therefore do not claim to have exhausted all the evidence available for purposes of seeking comparisons and relationships.





<sup>&</sup>quot;Urartäische Plätze in Iranisch-Azerbaijan," Istanbuler Mitteilungen 18 (1968) pp. 1 ff.

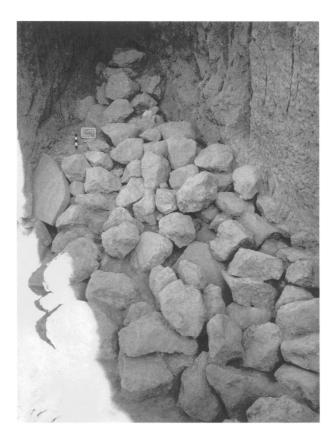


FIGURE I Rubble stones of Tumulus I. Note cleavage line at right

The trench was cleared down to the anticipated rubble stones (Figure 1), and a completed section of the trench was made (Figure 2). At a depth of 7 meters from the top of the tumulus we encountered soft clay (as opposed to the generally compact clay above) and then the rubble stones within 50 cm. These stones are fairly large, averaging between 20 and 65 cm. in diameter, and clearly form a roughly circular mass; they were laid down in several layers and mound toward the center. We cleared 2.70 meters of the rubble mass measuring out from the undug south balk. It seems certain that the tomb lies some distance to the south within the undug area.

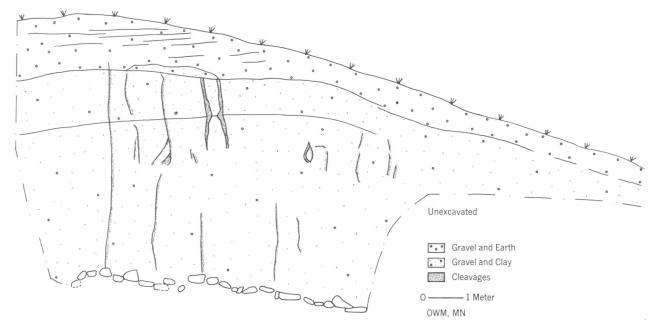
The rubble mass was covered with about 50 cm. of soft clay, as stated, and over this began the mass of hard compact clay continuing for about 5 meters; earth and gravel were dumped above. The cleavage lines recognized in 1968 continued down to the top of the rubble mass (Figure 2; Sé Girdan I, pp. 7-11).

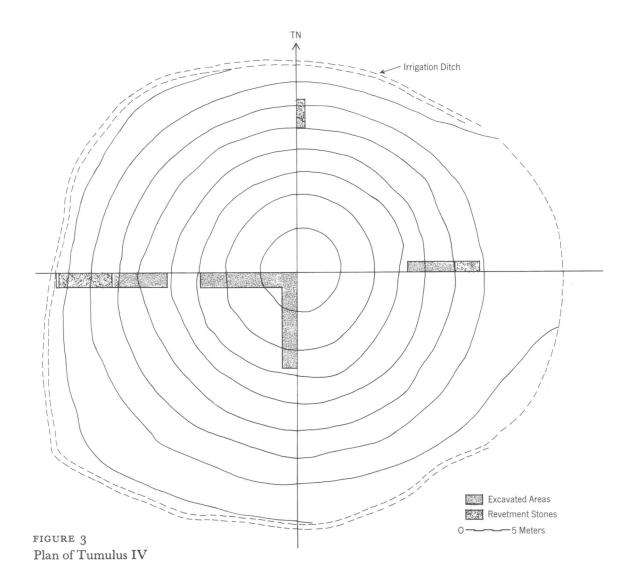
There were no visible signs that the cleared section of the rubble mass had been tampered with, and it would appear that the tomb remains unplundered. Its excavation will have to await a future season.

In Sé Girdan I, pp. 11-13 and fig. 5, it was recorded

#### FIGURE 2

East-west section of the northwest quadrant, Tumulus I





that 40 cm. below the sloping revetment stones in the main trench and 50 cm. below the revetment stones in test trench 3 (in the eastern part of the tumulus)<sup>4</sup> a horizontal course of stones was found; this course did not appear in the three other test trenches dug. In 1970 we checked this information by redigging test trenches I and 4: no horizontal course was found. Why this course only occurs in the long trench and in one test trench is not known. Perhaps certain parts of the ground needed leveling.

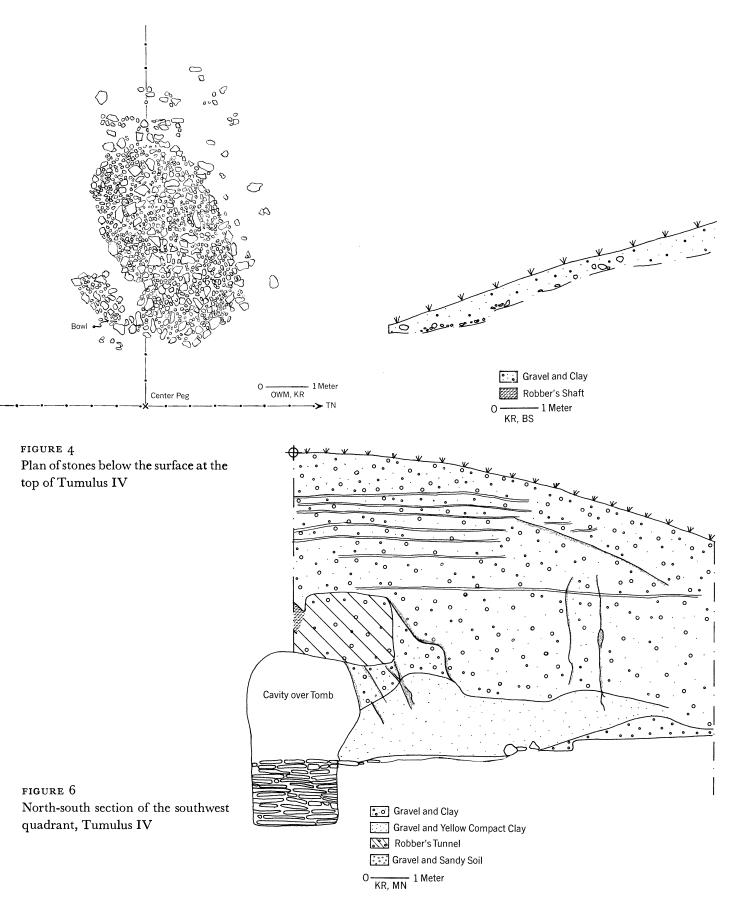
4. Unfortunately, in Sé Girdan I, p. 9, fig. 5, the lower horizontal course was inadvertently not recorded correctly in test trench 3. It is interesting to note that when we redug the test trenches filled in by us in 1968 we found the gravel and earth to be hard and without any indication that they had been dug two years previously.

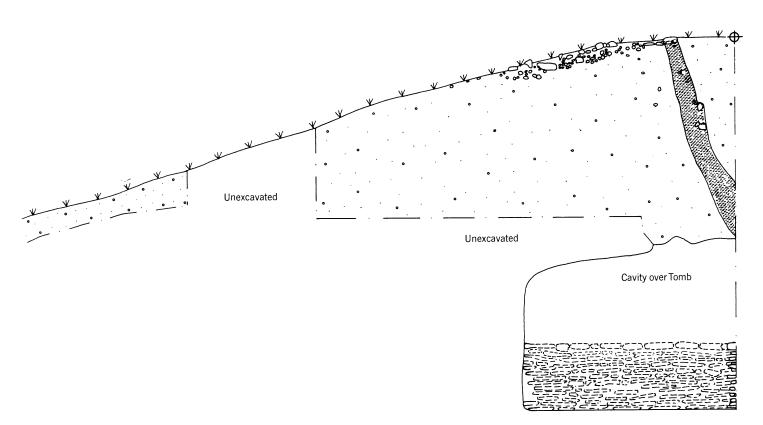
#### TUMULUS II

An attempt was made to dig a trench outward from the area cleared in 1968 in order to confirm that there was a stone revetment (Sé Girdan I, p. 16). Unfortunately, the landlord refused us permission although we promised to refill the trench. There can be little doubt, however, that this tumulus had a revetment since all the other tumuli excavated had such a feature.

## TUMULUS IV

Tumulus IV is the second largest in the Sé Girdan cemetery; it is about 7.5 to 8 meters in height and about 52 to 58 meters in diameter (Figure 3). This





## FIGURE 5

East-west section of the southwest quadrant, Tumulus IV. The tomb is restored for convenience

## FIGURE 7

Part of the east-west and north-south sections of the southwest quadrant, Tumulus IV. Part of the tunnel may be seen to the left and below the metal tray; the western part of the tunnel has been removed

## FIGURE 8

Tomb chamber in cavity of Tumulus IV. The ring of stones is to be seen in the foreground





tumulus, like all the others, is delimited by an irrigation ditch and cultivated fields. Its surface was covered by prickly weeds and was not under cultivation (*Sé Girdan I*, fig. 2, E on plan, figs. 1, 4).

The tumulus was divided into quadrants, with true north (14° 14' east of magnetic north) as orientation (n.b.: all the tumuli excavated in 1968 were divided into quadrants on a magnetic north orientation; those excavated in 1970 were given a true north orientation).<sup>5</sup> Excavation began in the upper part of the southwest quadrant within an arc forming a wedge-shaped area extending 11.15 meters from the top of the mound.

Beginning about 1.50 meters west of the center of the mound, and just below the surface, a closely packed mass of small stones—10 to 20 cm. in diameter—was uncovered (Figure 4). The mass was approximately 3 by 6 meters in area and did not form any recognizable plan; it extended partly into the northwest quadrant and was one to two layers thick. A coarse, carinated bowl, dark gray in color, and showing evidence of burning, was found nestled within the stones on the southeastern edge; a stone was found inside the bowl (Figure 27). I will return to this bowl later.

The stones were removed, and excavation continued to a depth of 2.5 meters, whereupon the area of excavation was limited to two trenches at right angles to each other, along the north-south and east-west sides of the quadrant; the trenches were respectively 1.75 meters and 1.50 meters wide (Figure 3).

A short time after excavation started, an area of earth different in color from the surrounding earth was noted in the east-west section beginning just below the aforementioned stones. It soon became clear that the area was a narrow shaft, now filled in, that at one time penetrated into the tumulus (Figures 5, 7). At a depth of about 3.50 meters a horizontal tunnel was encountered extending from the shaft southward 1.75 meters, then turning westward until it disappeared into the undug balk (the west balk of the north-south trench). The tunnel was more than one meter in height, although we could not measure it exactly because its course was directly over a hollow cavity and it was not considered safe to work there. The cavity began at a depth of about 5.50 meters, just below the tunnel. When the loose fill at the bottom of the cavity was cleared, the upper part of the tomb was exposed; the tomb chamber itself was completely filled with earth. The cavity extended over the whole area of the tomb (Figure 8), and at the southwest corner it became a tunnel that continued southwestward and upward from the tomb, beginning at a place where the latter was damaged, several stones having been torn away (Figures 9, 10). This part of the tunnel-cavity could safely be explored only superficially, but loose slabs of stone were seen there, slabs that certainly had been torn away from the walls of the tomb chamber.

The relationship of the cavity over the tomb and the vertical shaft and horizontal tunnel seems guite clear. Whoever dug the shaft, i.e., the tomb robbers, began it in an attempt to reach the tomb. (Because the shaft is so narrow in section, it may be assumed that we cut into it near its perimeter rather than at its widest part.) At a depth of 3.50 meters they decided to dig a tunnel, first going south, then west, and finally north, moving downward until they reached the tomb at its southwest corner. It seems plausible to assume that the robbers had a general idea where to find the tomb but were uncertain about its exact position. The clay over the tomb had been removed laboriously through the tunnel and up the shaft, work that must have been slow and hard, and we may assume that there were many helpers. The firmness of the clay kept the cavity and part of the tunnel intact, but the roof of the tunnel where it left the shaft had collapsed; the vertical shaft also filled up with earth and stones in the course of time-in fact, may have been deliberately filled in so as to cover any traces of the robbery.

The tomb lies in the western part of the tumulus, mostly in the southwest quadrant, partly in the northwest quadrant (using either true or magnetic north as orientation). It was placed so that, but for part of the short east wall, it was away from the center of the tumulus (infra) (Figure 10). The cavity created by the robbers' digging activities extended over the entire tomb and cleared part of the upper surface of all the walls. It took us several days to clean out the earth fill in the tomb, mainly because, as we approached the bottom, we encountered thick, wet mud, the water table being at hand.

The tomb is a well-made structure, rectangular in

<sup>5.</sup> This change was inadvertent. I assumed mistakenly that our surveyor in 1970 would use magnetic north as orientation. When I discovered the change, it was too late to make a correction.

plan, with internal measurements of 5.85 by 2.27 meters and an east-west orientation. It was carefully constructed of rectangular slabs of stone laid in thirteen courses, with thick mud mortar layers separating the slabs (Figures 11, 12). The slabs vary in size, averaging 60 to 80 cm. in length and 8 to 15 cm. in width; a few slabs are shorter in length, while others are as long as 1.50 meters. The mortar thickness varies from 4 to 20 cm., and the slabs and mortar layers do not always co-incide from course to course. The corners of the tomb were built at right angles and interlock, some stones of one wall thrust into the other, locked in place by the upper and lower stones; this does not occur in a regular fashion (Figure 12).<sup>6</sup>

Large stone pebbles 5 to 15 cm. in diameter were found in the mud and cleared out. We are not sure whether or not these stones represent the floor of the tomb: it was not possible to determine any order with respect to the stones because of the mud. Excavation stopped at a point just below the lowest stone course of the tomb, but we encountered no clear indication that there was a floor. The depth of the tomb, based on a measurement of the walls, is about 1.60 to 1.70 meters.

In the southwest corner of the tomb five courses of stone were missing for about 1 meter to the east; in the western wall two courses were missing for about 40 cm. to the north (Figures 9, 10). This destruction occurred when the robbers entered the tomb from their tunnel, where, as already stated, some of the slabs were to be seen.

Although the tomb had been plundered, the robbers left some objects because of either haste or carelessness. No skeleton was found, but we did recover a few fragments of human bone, all showing definite red coloration; some of the pebbles from the tomb also had this red color. A small fragment of a smoky-clear obsidian blade was found in the fill above the tomb, and one of the stone pebbles removed from the mud was a red chert core from which blades had been chipped. Presumably this was not part of the tomb equipment but just another rubble stone. If we are correct in this observation, the stone must have come from a local field and suggests that a neolithic or earlier settlement existed in the area. A few coarse, nondiagnostic sherds and a few scraps of nondescript bronze were also found in the tomb fill.

More important objects were also recovered from the tomb fill. At the western part of the southern half of the chamber and close to the floor, within the mud, were found 565 gold beads of varying types and 38 stone beads.

The beads are all quite small, as may be seen in Figure 13. There were 431 flat, round beads (labeled 3), 3.5 mm. in diameter and .5 mm. in height; 87 round beads with double carination (5), 5 mm. in diameter and 1.5 mm. in height; 40 hollow, spherical beads (6), 7 mm. in diameter, with walls .5 mm. thick; 4 very thin, flat, round beads (8), 5 mm. in diameter and 5 mm. thick; 2 round, lentoid-shaped beads (4), 2.25 mm. in diameter and .5 mm. thick; and 1 round, narrowwalled bead with a relatively large hole (not numbered), 4.5 mm. in diameter and 3 mm. thick.

Those of stone included 31 round carnelian beads with a slight double carination (10), similar to but slightly larger than some of the gold examples, 6 mm. in diameter and 2 mm. in height; and 7 solid, round carnelian beads (9), 7.5 mm. in diameter and 4 mm. in height. In addition there was one simple flat bead apparently made of tortoise shell (11), 5 mm. in diameter and 2.5 mm. in height.

In the eastern part of the southern half of the chamber we found one flat bronze adze and three bronze axe heads, all of the same type, but each made in a separate mold (Figure 14). The bronzes were in excellent condition, albeit they were found in the mud. The edges of all the blades were quite sharp, and it would therefore seem that they belong to the original tomb contents and were not the tools used by the robbers to dig into the tumulus. Those tools were not left behind as they were needed to dig into the other tumuli in the area!

The adze is 13.8 cm. long and 3 mm. thick; it flares out slightly from a width of 3 cm. at the base to 4.35 cm. at the outer edge.

Each axe has a shaft hole close to the back part of the weapon, a single oblique point forming the rear, and an outward-flaring blade. The three axes have slightly different measurements: (12) length 14.3 cm., width 4.6 cm.; (13) length 14.5 cm., width 4.3 cm.; (14) length 13.9 cm., width 4.5 cm.

<sup>6.</sup> Although not too clear from the drawing in Sé Girdan I, fig. 16, the corners of the walls of the tomb of Tumulus II were made in the same way.

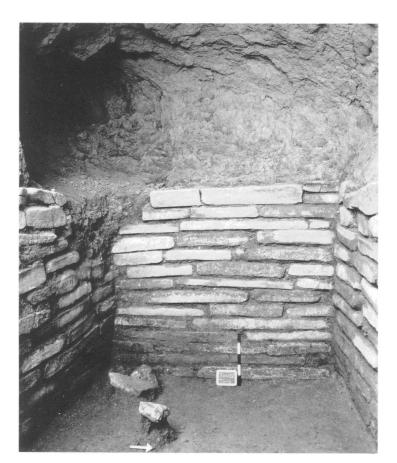


FIGURE 9

The western and part of the northern and southern walls of the tomb, Tumulus IV. Note the robbers' tunnel and entry at the left

FIGURE 10 Plan of the tomb and outer stone ring, Tumulus IV

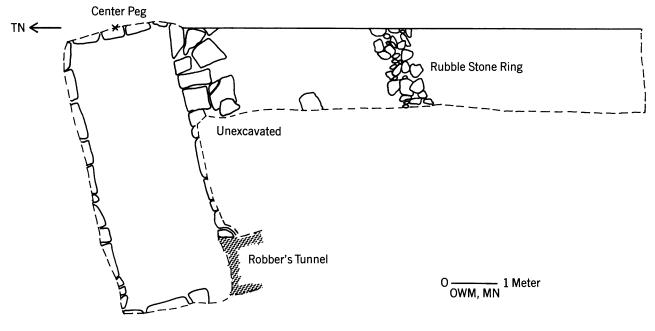
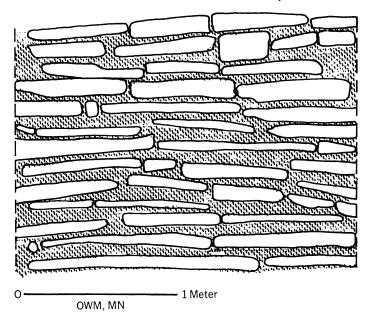




FIGURE 11 View of the tomb facing east, Tumulus IV

The north-south trench was excavated for a length of 10 meters, measuring south from the tomb edge, down to the level of the top of the tomb. At a distance of 4.5 meters south of the inner edge of the tomb we cleared an irregular section of rubble stones, three

FIGURE 12 Section of the east wall of the tomb, Tumulus IV



stones and 90 cm. wide, extending east-west across the trench and disappearing into both undug balks (Figures 8, 10); 1.75 meters north of these stones was a single stone sticking out of the west balk.

There can be little doubt that the section of stones represents part of a ring that encircles the tomb, rather than the remains of a central rubble mass familiar to us from the other tumuli. No other stones-except the unexplained odd one in the west balk-are to be seen in any of the exposed sections, either around the tomb or in the north-south trench. The sections mentioned show clay not disturbed by the robbers and would show rubble stones in situ if they had ever been laid down. One problem cannot be resolved: where did the stones that were found on top of the tumulus next to the robbers' shaft come from if not from the area over the tomb itself? And what relationship, if any, exists between these stones, the stone circle, and those stones found within the tomb? It is possible that the area of the tomb chamber-but not the tops of the walls of the tomb-alone was covered with stones (what the roof consisted of is of course not known) and that the robbers removed most or all of these stones through their meandering tunnel and vertical shaft. But this suggestion cannot be proven and does seem unlikely, so the issue will have to remain unresolved.

To the south of the ring of stones the fill consists of gravel and sandy soil that form a bulge (Figure 6). To its north there is a layer of soft brown earth under a thick layer of clay. It would appear that after the tomb pit had been dug and the stone tomb constructed the area immediately adjacent was leveled up to the stone ring, and that the bulge may represent dumping during the digging of the pit and the leveling process. Directly over the tomb (whether or not it was covered with stones) and the surrounding area, gravish yellow clay in compact condition was laid down by dumping; on top of this was dumped a mixture of clay and gravel. One and possibly two cleavage lines, similar to those from Tumulus I (infra), were recognized, and this fact suggests that the tumulus was erected with the aid of portable partitions that held the clay while it was being laid down. Shortly before the tumulus reached its final shape, a revetment of small stones in one or two layers was placed around the lower part of the slope. The revetment was irregular in height and was not compact, suggesting that it was laid down in a hurry. Test

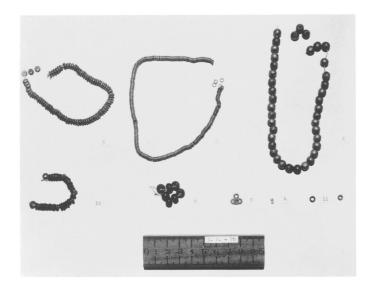


FIGURE 14 Bronze axes and adze from the tomb, Tumulus IV



FIGURE 13 Gold and stone beads from the tomb, Tumulus IV

trenches dug around the tumulus confirmed the presence of the revetment around the whole perimeter (Figure 3). After this stage, gravel and clay were dumped and the desired tumulus shape was formed.<sup>7</sup>

### TUMULUS V

This tumulus lies about 100 meters to the northwest of Tumulus IV, in a row with Tumuli I, II, and IV (*Sé Girdan I*, fig. 2, F on plan). Its present height is about 5 meters, its diameter 48 to 50 meters. At present it is assymetrical in shape with a deep pit at the top (Figure 15). There were no clear indications as to the location of the precise high point of the tumulus, so we arbitrarily chose the center of the pit as our center point (infra); we assumed that whoever dug the pit picked the highest point as the center. After the usual division of the tumulus into quadrants we chose the upper part of the southwest quadrant for excavation, using true north as orientation.

The fill consisted of gravel and clay; about 20 cm. below the surface we began to encounter scattered stones. They covered a good part of the southern area of the excavation but presented no pattern. Stones continued to be found throughout the fill (in the southern area). The northern part of the excavation, on the other hand, consisted of hard clay. After a time it became clear that the softer gravelly clay mixed with the stones represented a disturbed area, and we could see the faint outlines of an irregular pit (Figures 16, 17); the pit penetrated to a point just above the tomb subsequently discovered.

7. It has of course occurred to me that the revetments at Sé Girdan may actually have been originally exposed and not covered with earth as they now are: that is, they are covered now by earth from the upper part of the tumulus. However, the upper borders of the revetments are never uniform, and there is no regularity in the manner in which they are laid down: gaps and depressions, and shifts in levels, occur on all tumuli, as may be seen by looking at the sections. One might conclude that early stone robbing would account for these irregularities. I prefer to leave the matter open but suggest that the revetments were meant to be covered, as concluded in the text.

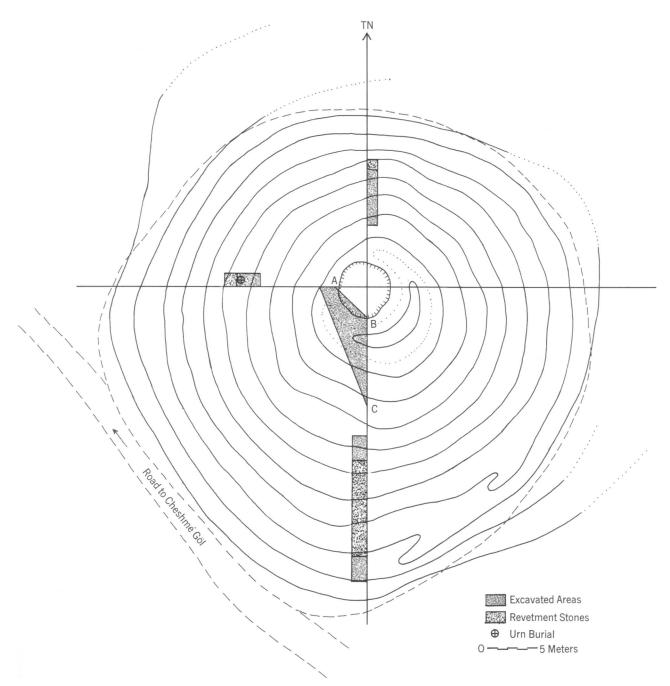


FIGURE 15 Plan of Tumulus V

In the northern part of the excavated area, the part consisting of hard clay, five distinct cleavages were recognized in the section, and we were able to isolate portions of them on the horizontal surface (Figure 18); other cracks in the section may be cleavage lines or cracks from the sun, but we could not tell. The five cleavage lines mentioned here are distinct and unmistakable and, as with Tumuli I and IV, reflect the use of portable partitions.<sup>8</sup> No cleavages were recognized in the north-south section.

8. The distances between cleavages were 17, 30, 12, and 15 cm.

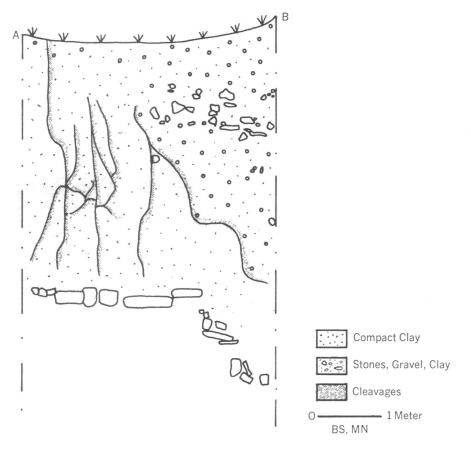
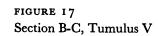
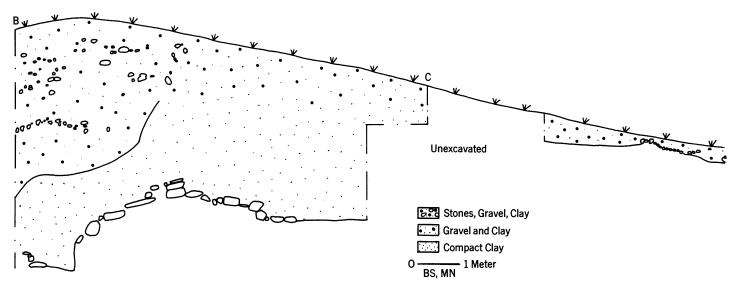


FIGURE 16 Section A-B, Tumulus V



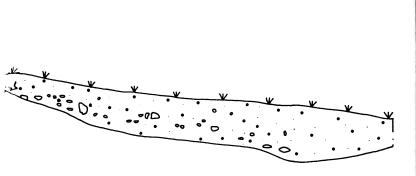


At a depth of about 4 meters large rubble stones mixed helter-skelter with flat stones appeared in the west, north, and south areas of the excavation. Unfortunately these stones turned out to be the remains of three sides of the tomb (we did not excavate the fourth side) and the disturbed rubble overlay (Figure 19).

The tomb was apparently rectangular in shape, about 2.25 meters in width, and formed from a pit dug into the earth. It was oriented roughly east-west, with the southern wall entering the B-C section, the northern wall entering the A-B section. The sides were the earth walls of the pit itself, but because of the havoc we could not tell if they had been plastered or smoothed. The upper edges of the pit apparently had been lined with irregular flat stones or slabs. We were able to surmise this information because some slabs were found on the edge of the pit and also because of the analogy with Tumulus VI (infra). Within the tomb pit some more slabs, also irregular in shape, were found (Figure 19), but we are not able to conclude whether they represent a floor that was torn up or fallen slabs that originally lined the edge of the tomb (cf. Tumulus VI). Otherwise, no floor could be recognized; the deeper we excavated, the muddier the earth turned.

Soft grayish white ashy deposits were found mixed with the stones and perhaps are the remains of a wood or reed roof, but we cannot be certain.

The tomb had been ruthlessly torn apart by the robbers, making it impossible to draw a plan. Originally



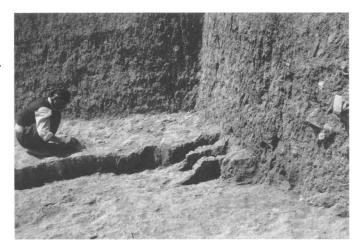


FIGURE 18 Cleavages, Tumulus V; A-B section at right

#### FIGURE 19

Tomb, Tumulus V; note the skull on the floor and bones on the stone in the left foreground



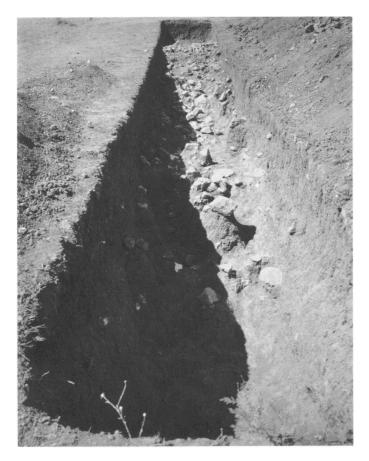


FIGURE 20 North-south trench with revetment stones, Tumulus V

a rubble-stone overlay covered the tomb, but since this had been torn away, we found the rubble stones jumbled together with the flat stones. Within the tomb were found fragments of bone scattered about and part of the skull of a young adult male (Figure 19); a long bone was found on top of some stones outside of the tomb at the northwest edge. The only other objects recovered were a small gold bead, flat and like one of the four gold beads found in Tumulus IV (Figure 13, no. 8); a small, carinated, black and white stone bead, 1.2 cm. in diameter and 7 mm. in height; and small, nondiagnostic fragments of bronze. All were found in the disturbed fill around the tomb. Some pottery sherds were also found in the tumulus fill. They are red-buff wares and generally nondiagnostic (Figure 29) except for one sherd that was once part of a carinated bowl similar to

the one found in the stones on top of Tumulus IV (Figure 28).

Whether or not the tomb lies away from the center of the tumulus cannot be stated because of the disturbance caused by the large pit. Since the high point of the tumulus is now missing and the adjacent areas corrupted, we have no objective guide. I will return to this matter shortly.

Test trenches were dug in the north and west quadrants, and a long trench was dug from the main cut (Figures 15, 17, 20). These trenches revealed the expected revetment of small stones that encircled the lower slopes of the tumulus.

At the upper border of the revetment stones revealed in the test trench in the western quadrant (Figure 15, X on plan) and just below the surface, we found a redbuff-colored jar with an everted lip and a raised ridge at the shoulder (Figure 31). Within the jar, which was in fragments, were found badly crushed human bones, apparently those of an infant. The jar was placed at the edge of the stones just touching them, implying perhaps that those who deposited the burial knew about the revetment. Yet we cannot rule out the possibility that the deposition at this particular place was accidental. The vessel could be called an Iron II or III vessel, but I am reluctant to make a more definite decision on the basis of a coarse, undecorated jar. No other burials (except for an Islamic burial in Tumulus VI) were found within the fill of the tumuli at Sé Girdan, but since we have not cleared away all the upper fill of the tumuli, we are not in a position to make definitive statements on the matter. In any event, even if the jar was buried at the time of the erection of the tumulus, we do not know if the burial was a significant event or simply an instance of someone taking advanage of the tumulus as a convenience. I can see no reason to bring in a discussion of sacrifice.

Sir Aurel Stein mentioned that in his excavations of the tumuli in 1936 "... shafts were sunk on the top of a couple of these mounds...."<sup>9</sup> Stein did not mention which tumuli he tested with shafts nor how deep his shafts penetrated. We therefore do not know if the pit recognized in Tumulus V is Stein's work, although this

9. Old Routes of Western Iran (London, 1940) p. 377.

is guite possible. For what seems fairly certain to me is that the pit does not represent the work of those who plundered the tomb: the pit does not penetrate as far as the tomb (Figures 16, 17). In fact, it seems very probable that the robbing and destruction of the tomb occurred before the erection of the tumulus. Hard clay exists directly over the tomb, and the cleavages, surely representing a technique of construction, were in situ in the fill over part of the destroyed area, the area not disturbed by the later pit. And directly below the hard clay and the cleavages was found the destroyed tomb. The only conclusion possible, it seems to me, is that the tomb had been plundered and destroyed after the interment and deposition of the grave goods, and that the mourners of the dead person decided to erect the tumulus nevertheless. Perhaps we may assume that the tomb was robbed as a result of an enemy or bandit raid. Following this act of desecration the survivors decided not to dishonor the dead man by leaving him unburied. and erected the tumulus; why they did not arrange his scattered bones eludes us.10

An interesting parallel (archaeological, not historical) for the erection of a tumulus after its tomb was plundered apparently exists in Tuekta, about 120 km. west of Pazyryk, in the Altai region of eastern Russia. S. I. Rudenko excavated two stone kurgans, dated to the late sixth century B.C., neither of which exhibited any signs of disturbance. Yet when the tombs were reached and cleared, it became obvious that they had been robbed. The conclusion seems to be that they were plundered before the tumulus was erected.<sup>11</sup>

## TUMULUS VI

This tumulus is the last one in the row of seven counting southeast to northwest (Sé Girdan I, fig. 2, G on plan). It is a relatively small and low mound, with a preserved height of 2.5 meters and a diameter of about

11. S. I. Rudenko, Kul'tura Naseleniia Tsentral'nogo Altai v Skifskoe Vrem'ia (Moscow, 1960) pp. 93 ff., pls. XIII, XIV (I wish to thank Prof. Ann Farkas for helping me with translation); K. Jettmar, Art of the Steppes (New York, 1964) pp. 12 ff., figs. 104, 106. 30 to 38 meters (Figure 21). Like the other tumuli it also is surrounded by cultivated fields.

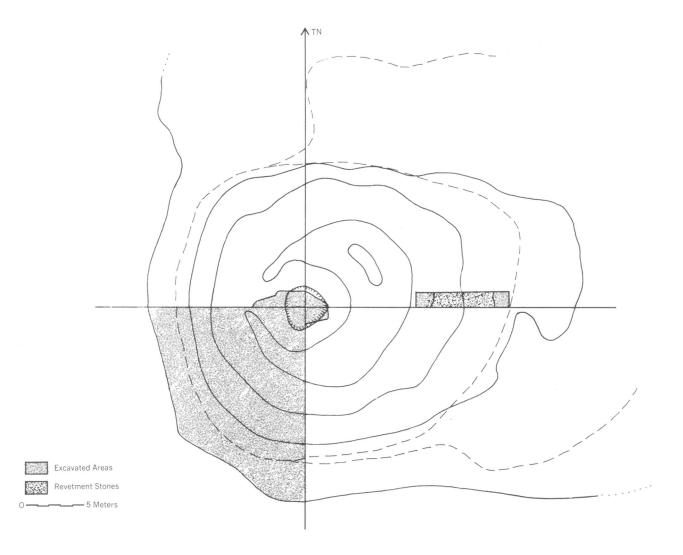
In the top part of Tumulus G there was a large depression. Although the depression could have resulted from Stein's work, I was certain it was evidence of plundering. Therefore I wished to excavate Tumulus H, less than 190 meters to the northeast of Tumulus IV. But because there was confusion on the part of the local authority about whether or not H was part of the Sé Girdan cemetery, I reluctantly had to excavate G.

The tumulus was divided into quadrants, and we excavated most of the southwest quadrant and parts of others while clearing the tomb. It was not possible to be sure about the location of the original high point of the tumulus because of the disturbed nature of the area. We arbitrarily chose the center of the depression as the center point of our quadrants.

Surface features, aside from the depression, consisted of many stones 30 to 50 cm. in diameter lying around the lower edges of the tumulus. They appeared to have been loosened from the revetment stones encircling the tumulus. The upper part of the rubble revetment was exposed for the whole length of the southwest quadrant, and the complete length of the revetment was exposed in a narrow test trench in the northeast quadrant (Figures 21-23). The stones are of mixed sizes, 5 to 20 cm. in diameter, laid down in two or three courses. However, in the western half of the southwest quadrant the upper part of the revetment consisted of one or two courses of rather large slabs, similar in type to those lining the upper edge of the tomb.

The tomb is a pit cut into the earth and is an irregular oval in plan. It is oriented northwest by southeast with an interior measurement of 4.20 by 2.25/50 meters. It had (as surmised) been plundered in the past, and a section at its northwest end was destroyed. Because of the plundering and accompanying destruction it was not possible to discern if the walls had been plastered or smoothed, or if the floor had been covered with slabs. Several slabs were found in disorder lying flat and standing upright within the tomb, but we could not establish if they represented floor slabs or if they had fallen in from outside (Figure 24). Water began to seep into the pit at a depth of 1.37 meters, and even if there had been a smoothed floor, we could not have recognized it. (Our workmen were convinced we had

<sup>10.</sup> E. Lorenz, "Raubgräberei-nicht Aktenkundig," Antike Welt 1 (1970) pp. 39 f., suggests that graves and tombs were destroyed not only as a means of securing the contents, but as a political and religious action against the entombed and his culture.



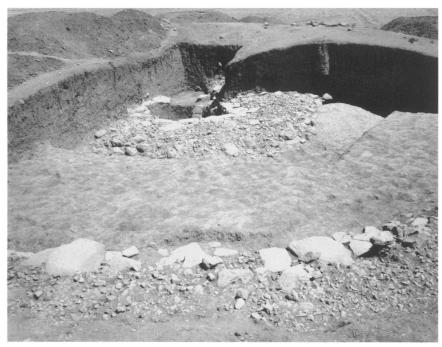


FIGURE 21 Plan of Tumulus VI

FIGURE 22

View of the tomb with surrounding rubble mass, and revetment stones in the foreground, Tumulus VI

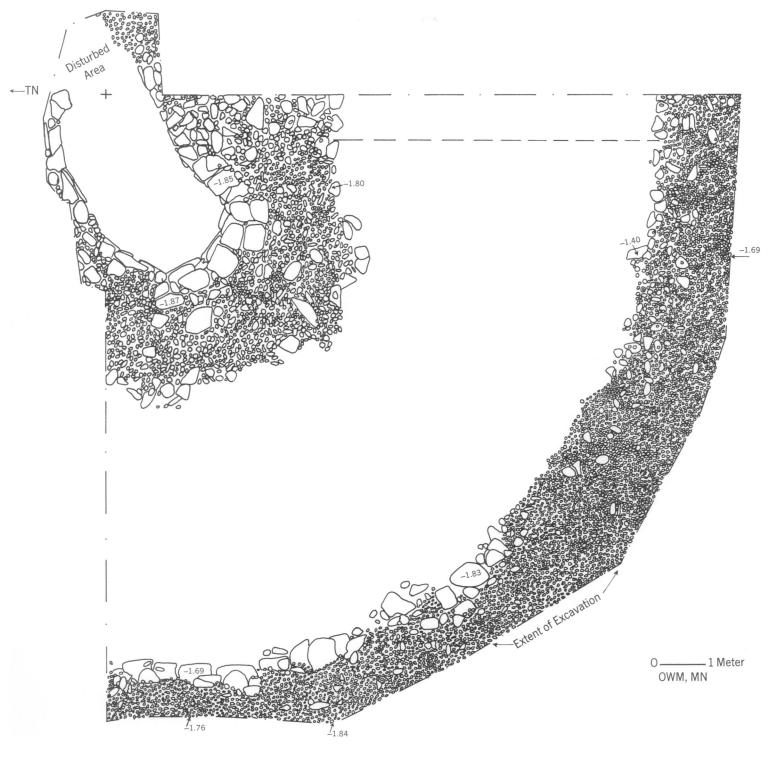


FIGURE 23 Plan of the tomb and revetment stones, Tumulus VI. Datum point at top of tumulus

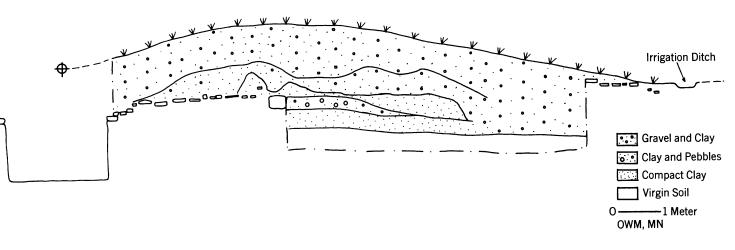


FIGURE 24 Tomb of Tumulus VI with slabs being excavated

FIGURE 25 Tomb of Tumulus VI with surrounding rubble mass



FIGURE 26 North-south section of the southwest quadrant, Tumulus VI



excavated a fountain and pool.) Not a single object or bone was found in the tomb, all having been taken or destroyed by the robbers.

The upper perimeter of the tomb pit was lined with two to four courses of stone slabs about 10 cm. thick and in sections overlapping each other (Figures 24, 25). These slabs were bordered by a large rubble mass, consisting partly of flat slabs but mostly of large and small stones, that formed a rough circle around the tomb. No evidence in any of the sections exposed suggested that the rubble stones ever extended over the tomb. Needless to say, we do not know the extent of the area cleared by the robbers, and the sections yielded no evidence in this matter, but it is doubtful to assume that they cleared away the stones neatly and uniformly down to the level of the tomb on all its sides. Therefore, it would seem that the rubble mass was laid down around the tomb and never functioned as an overlay, otherwise so common at Sé Girdan, as seen in Tumuli I, II, III, and V. In this respect, Tumulus VI reminds us of the fact that the tomb within Tumulus IV (another plundered and disturbed tomb) also seems not to have had a rubble overlay.

The upper part of the tumulus fill, judging from the section in the north-south trench (Figure 26), consisted of light-colored clay and gravel. Below this was a layer of compact gray clay with pebbles that partly overlay the rubble stones, and next was a layer of compact light gray clay that was packed firmly against the outer border of the rubble mass. Below this were still another layer of clay, tan in color, and then dark and moist earth that must be virgin soil. We observed no cleavages in the sections or in the surfaces excavated.

A burial of an adult male was found about 38 cm. below the surface in a section that partly overlapped the west wall of the tomb. The skeleton was lying on its side and faced southwest; there were no objects with the burial, but two stones had been placed about 20 cm. above the head. This burial dates from Islamic times and has nothing to do with the tumulus and its construction.

#### THE "CENTER" OF A TUMULUS

An assumption has been made both in Sé Girdan I and in this report that the present high point of the tumulus is its "center" as understood by the ancient

architects. Most archaeologists who have excavated tumuli and discussed the tomb position seem to have taken this viewpoint without specifically defining their terminology. Yet it is important to realize that we do not know what shape a particular tumulus had in its original state, given more than two millennia of wind and rain erosion, not to mention human activities. Nor do we know if the tumulus was originally built so that the shape was uniform in its dimensions, i.e., whether it had uniform contour lines on all sides, or whether this effect was not required. And we do not really know if the highest point of the tumulus was understood to function as the "center," and that this point was kept in mind after a tomb was built. Another item to be remembered is that the original edge of the tumulus will always be buried under the present level of the surrounding fields.12 And it seems probable to assume that this burying did not occur uniformly on all sides, so that the plan of the tumulus will have been altered. In other words, the original shape and geographical center of the tumulus may actually elude us.

The excavator of the tumulus at Takht-i-Suleiman in Iran stated that its original center, and high point, had moved about 3 meters to the north-northwest and did not correspond to the present high point ("Spitze des Hügels").<sup>13</sup> I am hesitant to either reject or accept this conclusion because to my mind it is apparently possible from reading the published section to conclude that in fact the original and present high point are the same. This would mean that the stone pile and wooden marker excavated there, not under the present high point, were meant only to be a guide for the builders up to a certain stage of the construction and were not meant to mark the final high point of the completed tumulus.<sup>14</sup> However, this conclusion is not based on direct observation of the excavated section. In any event,

12. See Sé Girdan I, pp. 8 ff., figs. 6, 7.

13. H. Wiegartz, "Die Ausgrabung am Tumulus (Tepe Madjid)," Archäologischer Anzeiger 1965, cols. 788 ff., especially 789. Unfortunately I did not become aware of this important article until Sé Girdan I was published. W. Kleiss sent me an offprint of his and R. M. Boehmer's contribution (but not Wiegartz's) on the excavations at Takht-i-Suleiman, "Die Grabungen auf dem Zendan-i-Suleiman," Archäologischer Anzeiger 1965, pp. 759 ff., and I assumed it was the only report: see Sé Girdan I, p. 24, note 22.

14. Wiegartz, "Die Ausgrabung," cols. 795 f., Abb. 79, where the fill described as "Kies-Bänder" would be the final course of earth laid down over the regular bands of "Lehm," "Kies," and no tomb was found either under the stone marker or under the present high point, thereby establishing that, whatever unit is used as a modern guide, the tomb was in fact placed off-center.

Reexamining the evidence of the early excavations at Gordion, we find that the Koertes used such terms as "Gipfel," "Mitte," "Mittelpunkt," and "Zentrum" when discussing the geography of the tumulus.<sup>15</sup> I assume that "Gipfel" must signify the present high point. How they arrive at the term "Mittelpunkt" is not discussed, but they do state that the tombs within Tumuli II, III, and IV were not under the "Mittelpunkt" but under the "Gipfel," that is, under the high point. At the same time, the grave of Tumulus I was almost exactly under the "Mittelpunkt," and that of Tumulus V was three meters from the "Mittelpunkt"; the "Gipfel" is not mentioned.<sup>16</sup> However, the later excavator at Gordion states quite definitely that the tombs he excavated were not under the center (i.e., high point, or "peak," to use his term) of the tumuli, but off-center (and, moreover, in the southwest quadrant).17

The excavators at Sardis inform us that some of the tumuli are not under the present high point, while others are. And the excavator at Kerkenes Dagh claimed that by digging into the centers he could not locate the tombs in some of the tumuli he excavated.<sup>18</sup>

Within Tumulus 3 on Cyprus the excavator found a brick beehive-shaped structure, the center of which he

interpreted as being the center and high point of the tumulus (the high point is now gone). Because the tomb chamber did not correspond to the position of the center of the brick structure, he concluded that the tomb was off-center, i.e., not under the high point of the tumulus. We are also told that at the same cemetery the "tomb," actually a cenotaph, within Tumulus 77 "ne se trouve pas au centre du tumulus. ..."<sup>19</sup>

In Europe, where the tombs appear always to be under the "center" of the tumulus, it is the present high point that is used as a guide.

In short, observations about a tomb placed off or under the "center" of a tumulus are usually (but see the Koertes at Gordion) based on the position the tomb has relative to the present high point. It is not easy to decide if this method is actually the correct way to judge if a tomb was consciously and originally placed away from or placed under the tumulus' high point. Nevertheless, my own conclusion is that the ancient builders considered the top of the tumulus to be the point of orientation, the center, so to speak, whether or not it was in fact geographically so. Therefore, I do not wish to alter my opinions about the off-center placement of some tombs within tumuli in Anatolia, in Cyprus, and at Sé Girdan in Iran;<sup>20</sup> I only wish to explain the criterion for such statements. But if it can be demonstrated (by a geologist?) that the present high points of tumuli are arbitrary, resulting from erosion and thereby creating a new configuration in the shape

18. Sé Girdan I, pp. 22 f., notes 11, 13.

<sup>&</sup>quot;Brauner Löss." The "Humus" would be accumulated fill resulting from erosion and would not be part of the original tumulus. Note that my conclusion would better fit the suggestion that the stone circle surrounding the tumulus was originally exposed; see Wiegartz, "Die Ausgrabung," col. 792.

<sup>15.</sup> G. and A. Koerte, Gordion Ergebnisse der Ausgrabung im Jahre 1900 (Jahrbuch des Deutschen Archäologischen Institut, Ergänzungsheft V; Berlin, 1904) pp. 38 f., 99, 104 f., 129 f., 139 f.

<sup>16.</sup> Koerte, *Gordion*, pp. 129, 139. My comments in *Sé Girdan I*, p. 22, note 11, about the tomb of Tumulus III being under the center should be corrected to say under the "Gipfel." The confusion is of course the reason for this present discussion on terminology. Note also that both the Koertes and R. S. Young found wood masts or markers over some of the tombs at Gordion: the Koertes found them under the "Gipfel," the latter over the tomb. Did they mark off the high point and the tomb, or only the tomb? Following Young, they presumably marked off not the peak but the tomb. See p. 22 and note 8 of *Sé Girdan I*.

<sup>17.</sup> The references are in *Sé Girdan I*, p. 22, note 11. In the same footnote appear two different words used by T. Özgüç and M. Akok for describing the position of tombs within Tumuli 1 and 2 at

Ankara: under the "Gipfel" for 1, under the "Mitte" for 2. In 1969 a Phrygian tumulus was excavated near Ankara by archaeologists from the Middle East Technical University. The tomb seems to have been placed off-center, away from the present high point; it is still unpublished. Note that the Koertes, *Gordion*, p. 129, refer to the tomb of Tumulus I being in the southwestern quadrant of the tumulus fill, using the "Kuppe des Hügels" as the center.

<sup>19.</sup> Sé Girdan I, p. 23, note 14; now also see V. Karageorghis, Excavations in the Necropolis of Salamis (Nicosia, 1967) pp. 25 ff., 121 f.; V. Karageorghis, Salamis: Recent Discoveries in Cyprus (New York, 1969) pp. 71 f., 151 ff.

<sup>20.</sup> I originally thought that by using the upper border of the stone revetment as a circle in each tumulus, I could arrive at a true center point. I subsequently realized that this method would not work as there was no regularity in the position of these stones around the tumulus, and therefore I could not get a true circle; see, for example, *Sé Girdan I*, p. 9, fig. 5. For a brief discussion of the possible relationship of Lydian and Phrygian tumuli (and Cypriote tumuli also), see my article "Phrygian or Lydian?" Journal of Near Eastern Studies 30 (1971) p. 63.

of the tumulus (as stated by the excavators at Takht-i-Suleiman), we may have to abandon any assignment of significance to tomb placement.

#### CONCLUSIONS AND SUMMARY

The three tumuli excavated this season share general features with the two excavated in 1968: Tumulus IV and probably also Tumulus I (unexcavated) contained tombs built off-center (we can say nothing definite about the tombs in the disturbed Tumuli V and VI); all the tombs were built into pits cut into the earth; all the tumuli have encircling stone revetments; Tumulus V had a rubble-stone overlay covering the tomb; Tumuli IV and V contained cleavage lines; and the stone tomb in Tumulus VI is of the same type as that in Tumulus II.

Within this area of agreement, differences do occur, demonstrating that variety did exist and that no rigid system of tomb architecture obtained. Tumuli IV and V contained pit tombs, the top borders of which were lined with slabs of stone. The plain pit tomb excavated in 1968 in Tumulus III did not have a stone-lined border. The tomb of Tumulus IV apparently did not have a rubble-stone overlay, but rather it had a feature unique in the Sé Girdan series, namely, a narrow rubble wall that must have encircled the tomb. And Tumulus VI apparently also did not have a true rubble overlay covering the tomb but a variety in the form of a packing laid down around the tomb. Finally, Tumulus VI is also unique at Sé Girdan for its roughly ovalshaped tomb pit; the tomb plans of all the other tumuli are rectangular.

Some general comments about tumuli as well as foreign parallels for the Sé Girdan tombs and tumuli have been presented in the first report; a few comments will be added here, although I make no claim that all sources have been covered.

Within Iran itself one must refer to the two tumuli at Takht-i-Suleiman, one of which, Tepe Majid, has been partly excavated (supra). This tumulus is larger than any at Sé Girdan. Aside from the conical rubble pile and wooden marker mentioned previously, a circle of stones, 1.50 meters wide, extended around the base of the tumulus. According to the excavator this circle was originally exposed. This is a feature shared with some tumuli in Europe and the Caucasus.<sup>21</sup> The technique of tumulus construction was not the same as that recognized at Sé Girdan: at the latter site there were no central rubble piles with wooden masts and no outer circle of stones, and the earth was not laid down in the uniform manner observed at Tepe Majid. The significance of this will have to await the excavation of the tomb that no doubt lies within the tumulus. It has already been mentioned that no tomb was found at the center of the tumulus.

W. Kleiss recently published a plan of a tumulus from the Ardebil region west of the Caspian Sea.<sup>22</sup> The tomb was constructed of stone and built into the center of the tumulus; it was oval in plan, reminding us of the plan of the tomb in Tumulus VI. No rubble-stone overlay covered the tomb, but there was a stone circle around the perimeter of the tumulus.

Another tumulus in Iran on which Kleiss reported lies at the foot of the Iranian-Urartian site of Bustam, 35 km. north of Khoy; it is still to be excavated and we have no data on it.<sup>23</sup> One wonders if there can be any significance in the fact that the cemetery at Sé Girdan also lies close to an Urartian site, Qalatgah.

At Boğazköy in Anatolia a tomb was excavated in 1958 that may have been originally placed under a tumulus, although this is not certain because of disturbances in the area.<sup>24</sup> The tomb is brought into discussion here because, to judge from the published plan,

21. References in Sé Girdan I, pp. 22 f., notes 15, 18. N. G. L. Hammond, "Tumulus-burial in Albania, the Grave Circles of Mycenae, and the Indo-Europeans," The Annual of the British School at Athens 62 (1967) pp. 77 ff., has written about Albanian and Greek Bronze Age tumuli. He discusses the House of Tiles at Lerna (see Sé Girdan I, p. 23, note 15) and grave circle B at Mycenae as tumuli with encircling stones. See also N. Yalouris, "A Mycenaean Tumulus at Samikos," Deltion 20 (1965) pp. 6 ff. (Greek with French resumé), a tumulus with a stone circle; M. Ervin, "News Letter from Greece," American Journal of Archaeology 74 (1970) p. 264, for Bronze Age tumuli (Early Helladic date?) at Marathon.

22. Kleiss, "Bericht über zwei Erkundungsfahrten," p. 19, fig. 16; *Sé Girdan I*, p. 24.

23. Kleiss, "Urartäische Plätze," p. 23. The conical mound at Tusikarn on the road from Kangavar to Jowkar looks to me as though it may be a tumulus, but it has not yet been excavated. There is a puzzling reference to a tumulus burial in Persia where Clearchus perished: Plutarch Artaxerxes 18. 5. Does Plutarch record an actual tumulus burial?

24. Peter Neve, "Die Grabungen im Wohnviertel J-K/20," Mitteilungen der Deutschen Orient-Gesellschaft zu Berlin 91 (1958) pp. 3 ff., Abb. 1a, 1b.



FIGURE 27 Gray ware bowl, smoke blackened, from stones below the surface at the top of Tumulus IV

it was surrounded by a circular rubble-stone mass. This rubble mass did not cover, i.e., overlay, the tomb but was laid down against and around it, in the same manner we observed to occur with the tomb in Tumulus VI (Figures 22, 24, 25). The Boğazköy tomb could not be dated by objects, as none were found, but the excavator suggested it was built in Hellenistic times.

Two tumuli have been reported in Syria by a German survey team.<sup>25</sup> Each is surrounded by a stone circle, and at one point the stone circles touch each other. These tumuli have not yet been excavated. Other tumulus-like mounds have been reported in an area near Jerusalem, but no graves have been found within them.<sup>26</sup> Since the remains of platforms and steps are present, it has been concluded that the tumuli (or mounds) are the remains of ritual areas rather than coverings for burials.

At least three tumuli excavated at Trialeti in Georgia appear to contain tombs built away from the center. It is not clear to me if other tumuli at Trialeti also have this feature, as the texts relating to the excavations do

25. E. Heinrich, "Die Vorbereitung: Bericht über . . . die im Euphrattal bei Aleppo begonnenen archäologischen Untersuchungen," *Mitteilungen der Deutschen Orient Gesellschaft zu Berlin* 101 (1969) pp. 33, 35, Abb. 6. It is not certain in my mind that these are actually tumuli. A. Westenholz, "Berütum, damtum, and Old Akkadian Ki Gal: Burial of Dead Enemies in Ancient Mesopotamia," *Archiv für Orientforschung* 23 (1970) pp. 27 ff., discusses textual references to what appear to be tumuli to cover mass burials.

26. Ruth Amiran, "The Tumuli West of Jerusalem," Israel Exploration Journal 8 (1958) pp. 205 ff. I should also like to call attention to the fact that the tumuli excavated on Bahrein Island have their tombs placed under the center, and they also have a surrounding stone wall: E. Mackay et al., Bahrein and Hemamieh (London, 1929) pp. 3 ff., pl. IV; G. Bibby, Looking for Dilmun (New York, 1969) pp. 59 ff., pl. II.



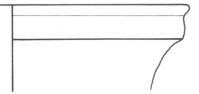
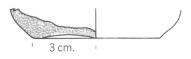


FIGURE 28 Buff ware, slipped, sherd from the fill of Tumulus V. Diameter 12 cm.

not mention the tomb position; the evidence comes only from an examination of the plans and sections.<sup>27</sup> Kurgan IV and X, dated by B. A. Kuftin to the Early Bronze period, and Kurgan V, dated by O. M. Japaridzi to the Middle Bronze period, have pit tombs in an area definitely away from the high point of the tumulus. These examples from Trialeti are the earliest examples of this feature known to me.

The finds from the three tumuli excavated at Sé Girdan in 1970 were few, as we have seen. Fortunately, several of the sherds found in the fill of Tumuli V and VI furnish us with some information about chronology. Several of the sherds come from deep bowls with plain incurving or outcurving sides (Figures 29, 30), and one sherd from Tumulus V (Figure 28) has an incurved rim and concave sides, representing a shallow bowl. Parallels for the vessels represented by the sherds occur in levels of the Iron III period at several sites in Iran, viz., Baba Jan, Godin, Hasanlu, Nush-i-jan, Zendan, and Ziwiye.<sup>28</sup> On the assumption that the sherds in the

27. B. A. Kuftin, Archaeological Excavations in Trialeti, I (Tiflis, 1941) (in Russian) pp. 101 ff., figs. 107, 108; Claude Schaeffer, Stratigraphie comparée et chronologie de l'Asie occidentale (London, 1948) p. 506, fig. 41; O. M. Japaridzi, Archaeological Excavations in Trialeti (Tiflis, 1969) p. 76, fig. 47; I owe this last reference to Ann Farkas. 28. Bowls: C. Goff Meade, "Luristan in the First Half of the First Millennium B.C.," Iran 6 (1968) p. 122, fig. 10, nos. 1, 12; T. Cuyler Young, Jr., "A Comparative Ceramic Chronology for Western Iran, 1500-500 B.C.," Iran 3 (1965) p. 56, fig. 2, no. 6, p. 54, fig. 1, nos. 1, 2, 4, p. 58, fig. 3, nos. 1, 6, 11, 17; R. M. Boehmer, "Forschungen am Zendan-i-Suleiman in Persisch-Azerbeidschan 1958-1964," Archäologischer Anzeiger 1967, p. 580, fig. 8; D. Stronach, "Excavations at Tepe Nush-i-Jan, 1967" Iran 7 (1969) p. 17, fig. 6, nos. 1-3. Bowls with incurved rim and concave sides: Goff Meade, "Luristan," p. 122, fig. 10, no. 3; T. Cuyler Young, Jr., "A Comparative Ceramic Chronology," p. 54,

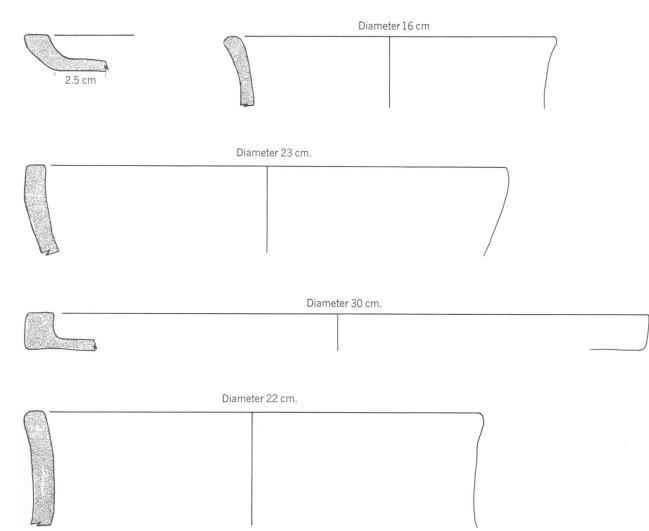


Diameter 22 cm.



FIGURE 29 Sherds from the fill of Tumulus V

# FIGURE 30 Sherds from the fill of Tumulus VI



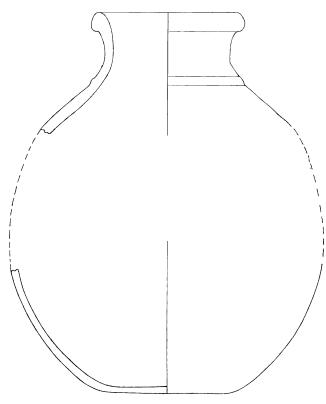


FIGURE 31 Red buff jar from Tumulus V. Height: 32 cm.

tumulus fill represent either earlier or contemporary material that was inadvertently dumped as fill, we have a *terminus post quem* date of Iron III for the tumuli. The vessel used as a container for the child's bones found in Tumulus V (Figure 31) seems to fit into an Iron II or III background, but I am reluctant to state this in absolute terms.<sup>29</sup>

The nearly complete bowl found at the top of Tumulus VI (Figure 27) within the stone debris close to the robbers' shaft is indeed a good Iron III vessel similar to the sherd from Tumulus V mentioned above (Figure 28).<sup>30</sup> Its presence near the robbers' shaft and its broken state surely indicate that it is associated in some manner with the robbers' activity. But did it come from the tomb itself as booty, then to be dropped and abandoned? Or was it the personal bowl of one of the robbers, brought with him to hold his yogurt? We do not know, of course; but at least we have a *terminus ante quem* date for the tumulus, also Iron III or earlier. In this respect we have been able to reinforce the suggested dating for the Sé Girdan cemetery proposed in the first report (*Sé Girdan I*, p. 24).

The axes (Figure 14) present a more difficult prob-

lem in terms of chronology and foreign parallels because I cannot find any other axes of exactly the same shape with the single sloping rear point. Axes with flaring blades and multiple rear points are quite common in the Near East from very early times continuing into the first millennium B.C.<sup>31</sup> At present it seems to me that it would be correct to date the blades tentatively to the seventh or sixth century B.C. on the basis of the archaeological interpretation reached for the date of the tumuli.

The gold beads from Tumulus I (Figure 13) are very similar to those found in the tomb of Tumulus III in 1968. However, they are not characteristic of any one particular period, and we cannot discuss them chronologically.

No evidence exists that would allow us to decide which tumuli are earlier and which later. Looking at the plan in *Sé Girdan I*, p. 6, fig. 2, we see that seven tumuli exist in a row placed roughly east-west. They are all spread out one from the other except for Tumulus II, which seems to have been tucked in between Tumulus I and IV, implying perhaps that it was built after those two were in existence. But we do not know which tumulus in the row was built first.

Tumuli H, I, J, and K exist outside of the row and are spread out in no apparent order. What their chronological relationship is to the others is of course not known, and guessing will not help. We must, therefore, conclude that the cemetery at Sé Girdan is an Iron III creation, perhaps seventh or sixth century B.C., and not make any finer distinctions.

fig. 1, no. 6, p. 56, fig. 2, no. 10, p. 60, fig. 4, nos. 7, 12; T. Cuyler Young, Jr., Excavations at Godin Tepe: First Progress Report (Toronto, 1969) p. 119, fig. 43, nos. 4, 5, 10, p. 123, fig. 44, nos. 6, 7, 9, 11, 14, 15, 17; Kleiss and Boehmer, "Die Grabungen," pp. 759 f., fig. 72, nos. 4, 5, 6; see also some close parallels in R. Ghirshman, Village Perse-Achéménide, Mémoires de la Mission Archéologique en Iran 36 (Paris, 1954) pl. xxxvII, nos. G. S. 1219d, G. S. 1224 from level 2; there are also good examples from Agrab Tepe and Pasargadae, not yet published.

29. See, for example, T. Cuyler Young, Jr., "A Comparative Ceramic Chronology," p. 56, fig. 2, no. 9 (with handles); p. 63, fig. 6, nos. 1, 9; p. 65, fig. 7, no. 9.

30. See note 27 for parallels.

31. Jean Deshayes, Les Outils de Bronze de l'Indus au Danube, II (Paris, 1960) pls. XVIII ff. The closest example I could find is an iron pick excavated by Layard in the North West Palace at Nimrud, a structure built by Ashurnasirpal II and restored by Sargon II: A. H. Layard, Discoveries Among the Ruins of Nineveh and Babylon (New York, 1875) p. 165, fig. at top.