Excavations at Agrab Tepe, Iran

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Agrab Tepe is one of three mounds lying close to the modern village of Dalma in northwestern Iran (Figure 1), southwest of Hasanlu in the Solduz Valley near the low ridge that separates the Hasanlu plain from the modern town of Nagadeh. Of the three mounds, one called Dalma Tepe was excavated in 1961 and yielded Neolithic remains. The third mound is still unexcavated.


The distance between Hasanlu and Agrab is approximately two miles, about a forty-five-minute walk from one site to the other; the sites are also visible to each other, but the low ridge to the south cuts off the view of the Nagadeh plain from Agrab. A modern road that connects Nagadeh to points north passes by Agrab about a half-mile to its west; it cannot be established if this road follows an ancient track. Before excavation the mound was about 52 meters in diameter and about 6 meters in height. A spring that caused the surrounding land to be swampy and impassible in 1964 exists about 100 meters to the southwest. The site was built directly over a rock outcrop, the only one visible in the area (Figure 2).

In 1964 the Hasanlu Project, a joint project of the University Museum of the University of Pennsylvania and the Metropolitan Museum of Art, decided to exca-
vate a second mound at Dalma as part of its ongoing plan to collect archaeological and cultural data of the Solduz Valley, south of Lake Urmia (Rezaiyah). Work at Hasanlu had to be suspended while we worked at Agrab, and we were able to devote a total time of three full weeks to the completion of our task. The mound had no local name. Since it was thought that the use of the name “Dalma No. 2” would cause confusion with respect to the Neolithic mound, it was decided to refer to the site as Agrab Tepe.²

Agrab Tepe consists of a single large building built over a rock outcrop (Figures 3, 4). The building is a fortified structure with thick outer defensive walls whose interior surface also functioned as walls of the rooms. The defensive wall consists of a foundation of large, roughly cut stone blocks with small stones used for chinking (Figures 5, 6, 9), and with a brick superstructure. Eight buttresses or piers and a massive
tower-entrance flanked by two piers project from the walls. In plan the structure is irregular, looking like a flattened oval at one end, with no obvious compass orientation. It measures about 31 meters east–west and about 28 meters north–south.

The walls are 1.90 to 2.00 meters thick, except for the two units east of the entry tower; the first unit varies from about 1.80 to 2.00 meters, the second from about 1.50 to 1.65 meters. The eight piers are irregularly spaced, varying from 4.5 to 5.7 meters distance from each other. Their width also varies from 3.00 to 3.70 meters; and their projection from the wall varies from 1.10 to 1.30 meters. If the structure were not so well made one could assume some haste in the building activities reflected by these irregular measurements.

The entrance unit is a tower 9 meters in width, projecting 7 meters from the defensive wall. Its south wall is 4.30 meters thick, and is preserved to a height of five courses of stone measuring 3.70 meters on its outer side and 3.00 meters on its inner side, where it

² Scores of scorpions were killed, hence the name “Scorpion Mound.” The staff consisted of T. Cuyler Young, Jr., and the author as co-directors, Louis D. Levine and Ted Rathbun as archaeologists, and Ed Keall, architect. The director of the Hasanlu Project, whose advice in the production of this report I here acknowledge with thanks, was R. H. Dyson, Jr. I also take pleasure in expressing my thanks to T. Cuyler Young, Jr., and Louis D. Levine for commenting critically on many items discussed in this report. For a good map of northwestern Iran, Kleiss, “Bericht über Zwei Erkundungsfahrten,” fig. 1.
rests on the rock surface (Figures 4, 6). Originally the tower must have been at least seven or eight courses and another meter in height, to judge by the preserved height of the defensive wall. The side walls are 2.00 meters thick, becoming 4.20 meters thick when joined to the corner piers; the latter begin 5.10 meters in from the front of the tower.

Within the tower there is a shaft measuring $5.5 \times 3.30$ meters, and $3.40$ meters deep to bedrock on the north end (Figures 3, 4, 5, 6). A mud-brick wall .70 wide and 1.90 meters in height divided the shaft into two areas. No obvious means of entry into the shaft exists, and presumably a ladder was employed. Nor is there any evidence available to suggest how one entered the tower from the plain below. Presumably a door existed in the now destroyed brick superstructure, and one has to assume that a ramp, or ladder, probably portable, allowed access from the plain below. No other primary function for the tower other than that of an entrance unit, or gateway, comes readily to mind.

Directly in the center of the defensive wall facing the tower, the north wall of the shaft, was a doorway 1.25 meters wide, with a large stone used as a sill (Figures 5, 6). The door was eventually filled in with stones and a new sill was built at what seemed to be level 2 (counting from the bottom up) of room A2/B6. Whether this door served only as a passage to and from the tower, or served also in some manner as an entry to the shaft, is not clear. In any event, there is no other indication of a passage from the tower to the main structure.

The structure as preserved consists of thirteen rooms or areas, most of the walls of which are constructed of brick, sometimes set on a single course, 10 to 20 cm. in height, on stone foundation, other times set right on the floor surface. In rebuilding, sometimes a stone foundation layer was placed over an earlier wall stub, other times the new wall was placed directly on the stub. Brick size is uniform throughout the structure, $10/12 \times 49/50 \times 49/50$ cm. The walls were coated with a thick layer of mud plaster.
A rectangular room, A2/B6, 5.30 × 3.60 meters, led to most of the other rooms and to the stairway area to the west. To the right is a small room, B10, 3.30 × 3.00 meters. In Period 2 it had a drain constructed of a small sunken pithos surrounded by flat stones; this was connected to a draining system originating in B4 (Figure 7). During Period 2 the doorway of B10 was narrowed by the addition of two stubs of brick.

Abutting B10 is a small triangular room, B8, 3.10 × 2.75 meters. In Period 1 this room had a door in its northeast corner (not shown on the plan) that entered into the area called B5. During the rebuilding of Period 2 this doorway was blocked. B8 was either abandoned in Period 2 or was entered from above.

West of room A2/B6 is a rubble-suraced area, A3, enclosing a rectangular brick pier that must be interpreted as a support for a stairway. A3 flanks the stairway support on three sides and continues up to the fortification wall at the west; the area south of the stairway support was unsurfaced and had a round terracotta hearth in Period 1. Except for those rooms entered from above by a ladder, one presumably had to use this stairway to communicate between stories, and perhaps to reach the battlements. The stairway was entered directly from A2/B6, which in turn served as a passage to the other rooms. One is here reminded of the entrance system used at Hasanlu IV, where stairways were placed in a room to one side of the anteroom.

Directly to the north of room A2/B6 is room B3, 4.20 × 3.60 meters. It is connected by doors to rooms D1 and D2. A curious stone-edged semicircular step-down, about .25 deep and 1.25 meters in diameter, exists in the room's southeast corner, taking up about half the room's space (Figure 8). Nothing was found to suggest what its function might have been.

Room D1 is triangular in shape and abuts onto the defensive wall (Figures 8, 9); its two walls are each about 3.50 meters in length. This area no doubt functioned as a kitchen and storage room, since many
animal bones and occupational trash were found in the fill and on the floor; also, five pithoi were excavated in situ resting on the floor (Figures 3, 8, 9), four of these against the defensive wall, and sherds of others were found in the fill.

Room D2, 2.50 × 1.85 meters, also abutted onto the defensive wall (Figures 10, 11). It apparently functioned as a storeroom, for a large pile of stones, presumably slingstones, was found resting in the northwest area against the defensive wall. Remains of a late wall, apparently Period 2 or 3, ran north-south; the slingstones were found partly under it, resting on the primary floor. The south wall of D2, seen on the plan as a double wall, actually consists of several wall periods.

Room C1, 4 × 8.5 meters (Figures 10, 11), abutted against the defensive wall. In Period 1 a long north-south wall (no door is visible in the low wall stub, but it could have eroded away) divided the area from D2 and continued further south. In Period 2 a wall running along the line of the earlier wall, but slightly displaced to the east, was built; only a stump, which projects into C1, now remains (the stone foundation is visible in Figures 10, 11); presumably it continued to the defensive wall. In the fill and on the floor of C1 were found charred grain, stone pounders, several smashed pithoi, and sherds, suggesting a work and storage room.

The rooms to the south of C1 are the most unusual of the structure. A large rectangular room, 6.00 × 9.00 meters, was subdivided into four rectangular rooms of unequal size by a cross-wall of brick resting on a stone foundation (Figures 3, 4, 12). The cross-wall was built against a well-made outer wall, 70 cm. thick, constructed of small stones, which in turn was built against the brick walls of the neighboring rooms, and also against the defensive wall. This stone wall was constructed as one unit before the subdivision of the area. In addition, the floors of the whole area were paved with flat stones one layer thick. A layer of earth about 15 to 20 cm. thick separates the paved floor from the foundations of the cross-wall (Figure 12); it is therefore
clear that the paved room with its stone-lined walls existed as one large area for a time before it was subdivided. The floors of the four rooms now all slope slightly toward the center of the area. It is not clear if this represents a sagging (presuming the flooring was not laid directly on the bedrock) or an original plan. A stone-lined and capped draining system, 3.30 meters long, 25 cm. high, and 15 cm. wide, was constructed through both the southwest corner of the stone wall in B4 and the neighboring brick wall. It emptied into the drain in the northwest corner of B10 (Figure 7); no drains existed in the other stone-paved rooms. Presumably the drain was built before the subdivision occurred.

The particular time in the history of the building when the area was given a stone lining, was paved, and was subsequently subdivided seems fairly clear. The stone lining wall was built against the brick wall of Period 2, which itself rests on the stub of the earlier Period 1 wall, and which blocked the doorway entering into B8. Therefore, the lining and paving belong to the second construction period and the subdivision to a later phase of this period. No doorways exist to connect the four rooms to each other or to the neighboring rooms, nor is there any indication that the abutting brick walls once had doors. Thus here, as with rooms C1 and B8, entry was doubtless from above. This feature at Agrab plus the stairway makes it certain that another story existed over the level preserved to us.

The nature of this particular area within the Agrab structure remains a mystery. Surely the elaborate walling, paving, partitioning, and draining system reflect a function not shared by the other rooms. Was it originally built as a bathing area? Could it have been built as a rodent-proof, moisture-free storage room? Pithoi fragments were found in Room 1, and animal bones were found in the fill of areas 1, 2, and 4, but these could have fallen from a higher story. The problem remains unresolved.

Several test trenches were dug outside the defensive wall, in the north, south, east, and west. Nothing but bedrock was encountered in three of these trenches,
but in the east trench a small enclosed space was excavated. It was formed by two short brick walls projecting from the front of the two piers, and creating an open doorway 1.75 meters wide. The walls are two bricks wide, or from 1.00 to 1.10 meters thick. The sill was also of brick and exited to the bare rock below. There was no visible means of communication between this space and the main unit, nor was there any visible means of closing the door in the space. Three arrowheads, a bone spatula, a bead, and a grinding ball were found here in the fill. Perhaps the unit served as a temporary postern-gate area.

The building at Agrab Tepe was destroyed at least twice by fire and rebuilt using the same basic plan, thus creating three periods. During most of the course of excavation this fact was not recognized for several reasons. The rebuilt walls were placed directly over the earlier walls (Figures 8–10). The heat generated by the fires was quite intense and vitrified the plaster, which made it difficult to clear wall faces. This situation prevented us from seeing wall stratification and offsets of later walls over earlier ones, which occurred in a few cases. Moreover, in only a room or two were there any floors preserved from Period 2, as these floors were not hard, nor were they regular (Figure 13). Thus we assumed that we were digging a site with one occupational level. When we were able both to read the sections and examine the walls closely, we concluded that Agrab had several levels. By this time the digging was basically finished and it became difficult in some cases to divide the pottery into the three levels. However, Period 3 was close to the surface and had no recognizable floors or remains as such, only sherds considered to be surface finds. An Islamic level, much denuded, had been cut into it and destroyed it. Also, many of the finds were in the fill over the primary floor level and presumably came from Period 1. Yet, one cannot be sure in all cases. In room D1 several pithoi were found on the primary floor, supplying us with important information.

The lack of good, firm floors in Period 2, plus the rebuilding on original plans, suggests that only a short amount of time elapsed after the first destruction before rebuilding, and that it too may have been rapidly rebuilt and only briefly inhabited in Period 3.

**OBJECTS EXCAVATED:**

**Pottery**

**BOWLS WITH ROLLED RIMS:** Figure 14, 1 and 2, plus more sherds; coarse ware, buff, lightly burnished. Related bowls come from Hasanlu IIIB and A (Young 1965, fig. 6, 5); Bastam (Kroll 1970, fig. 6); Godin II
CARINATED BOWLS WITH SQUARE RIMS: Figure 14, 3, 10; two examples; coarse ware, buff, unburnished. Related bowls are from Hasanlu IIIA; Godin II (Young 1969, fig. 43, 14); Pasargadae, unpublished; Geoy Tepe A (Burton-Brown 1951, fig. 36, 357).

POTS WITH OBLIQUE SHOULDER SPOUTS: Figure 14, 4, 8, with handle, 5; three more examples, one with handle; coarse ware, buff, unburnished. Related pots are from Hasanlu IIIIB (Young 1965, fig. 2, 5); Geoy Tepe A (Burton-Brown 1951, fig. 35, 126; fig. 40, 1644; fig. 41, 113); Godin II (Young 1969, fig. 42, 17); Norşuntepe (Hauptmann 1970, fig. 16, 12; fig. 17, 3; fig. 18, 1, earliest Iron Age level); cf. Altintepe, later level (Emre 1969, pl. v, 1); Achaemenid Village (Ghirshman 1954, pi. xxix, G.S. 1206b, G.S. 959).

POTS WITH ONE HANDLE: Figure 14, 6 and 7; coarse ware, buff, unburnished. Similar vessels come from Hasanlu IIIIB; Geoy Tepe A (Burton-Brown 1951, fig. 35, 106).

LIP SPOUT: Figure 14, 8, one example; buff, smoothed surface, medium grit interior. Related spoouts are from Hasanlu IIIIB and A (Dyson 1965, pp. 205, 212, note 36); Geoy Tepe A (Burton-Brown 1951, pl. 39, 219); Zandar (Boehmer 1961, pl. 45, a1; pl. 51, 21); Ziviwe, unpublished (Young 1965, fig. 10 chart); Achaemenid Village I (Ghirshman 1954, pl. xxix, G.S. 2242); Luristan (Goff Meade 1968, p. 123, fig. 11, 14, Iron III); Vanden Berghe 1967, pl. 59, no. 2); Masjid-i-Suleiman (Ghirshman 1970, p. 184, pi. rvb).

PLAIN BOWLS WITH INCURVING SIDES, PINCHED RIMS: Figure 14, 9; one buff, red-slipped, burnished with fine paste; two others, without hollow base, buff, smoothed surface. Related bowl shapes are known from Hasanlu IIIIB and A (Young 1965, fig. 1, 1); Ziviwe (ibid., fig. 3, 1); Bastam (Kroll 1970, fig. 11, 1; pl. 2, 1, 2); Godin II (Young 1969, fig. 43, 2); Achaemenid Village II (Ghirshman 1954, pl. xxxvii, G.S. 1219f); Norşuntepe (Hauptmann 1970, fig. 23, 1, middle Iron Age); Armavir Blue (Barnett 1963, fig. 19, bottom). Hollow-based bowls, not to be confused with omphalos bowls, occur at Agrab in the earliest periods and in the fill. They also occur at Hasanlu IIIIB (Young 1965, fig. 1, 2); Sé Girdan (Muscarella 1971a, fig. 29); Qalatgah surface (Muscarella 1971b, p. 46); Godin II (Young 1969, pl. 44, 6, 7; also earlier in Godin III, fig. 32, 7, 8); Altintepe, earlier level (Emre 1969, p. 295, fig. 12); cf. also Karageorghis 1962, p. 114, and pls. 144, 145, 148, 149, 156, 166, 171, dated to the early sixth century B.C. The hollow base seems to be a variant of the omphalos, which occurs in Iron III also. Bowls from Igdyr (Barnett 1963, fig. 15) may be hollow based, rather than omphaloi.

FIGURE 15
Pottery from Agrab Tepe

3. When Hasanlu IIIIB and A appear without a reference it means that I found the vessel in the Hasanlu files of the University Museum.

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coarse, buff; 7, red-slipped, burnished; others, like 4 and 5, red-slipped, burnished. Such bowls are known from Hasanlu IIIIB and A (Dyson 1965, p. 204, fig. 13; Young 1965, fig. 1, 3, 5; common in IIIB); Ziwiyeh (ibid., fig. 3, 19); Bastam (Kroll 1970, fig. 1, 10; fig. 3, 1, 7; fig. 4, 3); Baba Jan I (Goff Meade 1968, fig. 8, 9); Norşuntepe (Hauptmann 1970, fig. 23, 3, 4); Altintepe, earlier period (Emre 1969, fig. 8, 10; pl. ii, 1, 2); Van (von der Osten 1952, pl. viii, 1).

**Bowls with rolled and grooved rims:** Figure 15, 8, burnished gray ware, fine paste; 9, buff, smoothed surface. Similar shapes occur at Hasanlu IIIA; Ziwiyeh (Young 1965, fig. 3, 4, 5); Godin II (Young 1969, fig. 43, 11).

**Carinated bowls with grooved collars:** Figure 15, 10, buff, smoothed surface; 11, burnished gray ware. Similar forms occur at Hasanlu IIIIB; Geoy Tepe A (Burton-Brown 1951, fig. 36, 643); Godin II (Young 1969, pl. 43, 12); cf. Norşuntepe (Hauptmann 1970, fig. 18, 4; fig. 21, 3); Achaemenid Village (Ghirshman 1954, pl. xxxvii, G.S. 1219g).

**Carinated bowls with slightly rolled rims:** Figure 15, 12 (64-4), 13 (64-3) from fill over A3 primary floor; buff, smooth surface, with slip on interior and exterior; 14, with square hollow base, from primary floor of B6, red-slipped, burnished. Similar bowls are found at Hasanlu IIIB, also, in one case at least, with a squared hollow base; Ziwiyeh (Young 1965, fig. 3, 3); Zendan (Boehmer 1961, pl. 56, 16, 17); Bastam (Kroll 1970, fig. 4, 2); Godin II (Young 1969, fig. 43, 4).

**Trefoil pitchers:** Figure 15, 15; buff, burnished, medium grit. Similar pitchers, with or without shoulder grooves, occur at Hasanlu IIIIB and A (Dyson 1965, fig. 13, lower right; Young 1965, fig. 2, 7); Bastam (Kroll 1970, fig. 1, 7; fig. 2, 6); Baba Jan I (Goff 1970, fig. 8, 1); Achaemenid Village II (Ghirshman 1954, pl. xxxviii, G.S. 1221d); Altintepe (Emre 1969, fig. 17, 18); Karmir Blur (Piotrovskii 1959, fig. 51; Piotrovskii 1969, pl. 49, 50); Igdyr (Barnett 1963, fig. 20, 2); also at other Urartian sites; Norşuntepe (Hauptmann 1970, fig. 22, 10, middle Iron Age).

**Jar with rolled tab handles:** Figure 15, 16; buff ware (Dyson 1965, 213, fig. 13, listed in the IIIA section). Similar handles on pots occur at Hasanlu IV (Young 1965, fig. 2, 3); Geoy Tepe A (Burton-Brown 1951, fig. 36, 102; fig. 37, 120); see also Trésors de l’Ancien Iran (Geneva, 1966) fig. 64, catalogue no. 672. **One-handled pitchers:** Figure 16, 1 (64–23), 2 (64–23), both from the fill over the floor of B10, and of Period 2; coarse ware, buff; 2 has a smooth broken rim suggesting it was used after breaking. Similar pitchers occur at Hasanlu IIIIB, Ziwiyeh, Giyan I, Sialk B (Dyson 1965, fig. 7); the neck of 1 is missing but the general shape looks like pitchers from Bastam (Kroll 1970, p. 73, fig. 1, 7), Altintepe (Emre 1969, fig. 17), Karmir Blur (Piotrovskii 1959, fig. 51), and at other Urartian sites; see also Noršuntepe (Hauptmann 1970, fig. 23, 7). At the Urartian sites this shape usually has a fine red polished surface.

**Jars with two handles:** Figure 16, 3; buff, burnished, fine paste. Comparable jars may be seen at Godin (Young 1969, fig. 42, 1); Nush-i-Jan (Stronach 1969, fig. 6, 9; fig. 7, 2). None of these is an exact parallel.

**Pot with everted neck, simple pinched rim, grooves at shoulder:** Figure 16, 4, 17 (64–19); fill over the floor of B1 and belonging to Period 2; buff orange, burnished, medium grit paste; interior of jar is scraped, interior of neck is smoothed. Similar-shaped red-slipped vessels are found at Hasanlu IIIIB (Young 1965, fig. 2, 8, 11, for shape); Ziwiyeh (ibid., fig. 3, 7, 13); Zendan (Boehmer 1961, pl. 52, 2); Godin II (Young 1969, fig. 42, 15).

**Small pots with plain or slightly rolled rim:** Figure 16, 5 (64–35), from primary floor of D1, and belonging to Period 1; buff, burnished, slightly hollow base; 6 (64–16), fill over primary floor of B6, also Period 1; buff, medium paste. Similar small pots occur

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**FIGURE 16**

Pottery from Agrab Tepe

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**FIGURE 17**

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High-necked jars: Figure 16, 8–12, sherd s of about five others; all are buff, smoothed surfaces, except 10 which is buff, burnished. Similar jars occur at Hasanlu IIIB and A; Ziwiye (Young 1965, fig. 3, 10); Bastam (Kroll 1970, fig. 3, 4, 5); Zendan (Boehmer 1961, pl. 30, 2–4, pl. 54, 6); Godin II (Young 1969, fig. 42, 3, 4, 6, 9, 14, 16); Pasargadac, unpublished; Altintepa (Emre 1969, fig. 2, 3, 5, 6).

Bowls or basins without handles: Figure 19, 1, coarse ware, buff; 2, buff, lightly burnished; fragments of two others that are coarse buff, and one that is buff, smoothed surface. Similar vessels occur at Hasanlu IIIB and A.

Small pithoi, storage jars: Figure 19, 3–10, and fragments of others; most are coarse, buff, and unburnished; 7 is red-slipped, 8 and 9 are buff with smoothed surfaces, and they have grooved rims. Parallels are found at Hasanlu IIIB; Ziwiye (Young 1965, fig. 4, 3); Geoy Tepe A (Burton-Brown 1951, fig. 49, 1648); Zendan (Boehmer 1961, fig. 31, 2; pl. 54, 7); Godin II (Young 1969, fig. 43, 1, 6, 15, 19); Bastam (Kroll 1970, fig. 5, 1, 4). Grooved rims on storage vessels occur at these sites also.

Tab handle: Figure 19, 11; from fill in B1, belonging to Period 2; dark brown, smoothed surface, medium grit paste; only one example found. Parallels for these handles occur at Hasanlu IV (Young 1965, fig. 6); Hasanlu IIIB, Ziwiye (ibid., fig. 3, 17; fig. 4, 9; fig. 10); Zendan I (Boehmer 1961, pl. 57, 8–11; Boehmer 1965, fig. 75b, 74a); Godin II (Levine 1970, p. 43, drawing); cf. Geoy Tepe A (Burton-Brown 1951, fig. 35, 284) and Nush-i-Jan (Stronach 1969, fig. 7, 2).

Horizontal handle: Buff, coarse ware, from fill in B7; only one example found. This type of handle occurs at Hasanlu IIIA, Ziwiye, Khorvin, Giyan I (Dyson 1965, 206, fig. 7); Godin II (Young 1965, fig. 34, 16); Baba Jan II, III (Goff Meade 1968, fig. 10, 12–14, 18; Goff 1970, fig. 7, 4–6; fig. 8, 11–12, Period 1); Nush-i-Jan (Stronach 1969, fig. 6, 3–6).

Pithoi: Many pithoi fragments were found in the fill and on the primary floor of D1. Figure 20, 1a, b, Figure 21 (64–1), from high in the fill of A2—and apparently either Period 2 or 3—a fragment of a brown buff, coarse pithos, apparently handmade; stamped into the clay are two round sealings, each a skidding horned creature with erect tail; features cannot be made out but both creatures seem to be of the same species. To their right is a stamped curved-sided square with a...
round depression in the center; below the impressions are hand-impressed inverted V marks. I cannot find exact parallels for these sealings, but one should compare sealings from Urartu (van Loon 1966, p. 156, F11; p. 159, E15, E16; p. 161, G2; Barnett 1959, fig. 6, 15; see also Mallowan 1966, p. 198 f., fig. 134, 7, 7th century b.c.). Three practically complete buff pithoi with scraped surfaces were found on the primary floor of D1: Figure 20, 2–4, Period 1; 2 and 3 have raised triangles on the shoulder, 4 has a rope or corded design. Parallels for the triangle decoration occur at Karmir Blur (Piotrovskii 1969, pl. 61, sunken triangles); Kayalidere (Burney 1966, fig. 15, sunken triangles); Patnos (Ankara Museum); Kef Kalesi (Biliç, Öğün 1965, pl. viii, sunken triangles, corded also). Vessels with corded decoration on the shoulders also occur at Urartian sites, *viz.*, Kef Kalesi, *op. cit.*; Barnett 1959, pl. iv. Other pithoi have coarse, buff, unburnished surfaces: Figure 20, 6, 8; or slightly burnished buff surfaces, 7; or plain buff, smoothed surfaces, Figure 22, 1, 3, 4; or a red-slipped buff surface, 2 (two of these were found). The flat-ledged type, Figure 22, 2, has parallels at Hasanlu IIIB and A; Kayalidere (Burney 1966, fig. 15, fig. 16); the other pithoi have parallels at Hasanlu IIIB and at Urartian sites, *viz.*, Altintepe (Emre 1969, pl. vi). 

**PITHOS:** Figure 23, 2 (64–42), Figure 24 (Muscarella 1971b, fig. on p. 44; Dyson 1965, fig. 13, lower left in IIIA section); found on top of and apparently within a pithos on the floor of D1—the southwest pithos shown on the plan; deep red, well burnished, red-slipped; inside plain and uneven; triangles and bands on surface scraped and lighter than rest of vessel; traces of white paint on the bands and triangles; ht. 56 cm., rim diam. 54 cm., base diam. 19 cm., carination diam. 47.5 cm. A very similar, but larger vessel was published from Patnos (van Loon 1966, fig. 3), where the triangles are also filled with white paint; others, unpublished, are also from Patnos. See also a similar vessel and decoration, but cruder, from Armavir Blur (Piotrovskii 1969, pl. 69); compare for general shape a vessel from Karmir Blur (Piotrovskii 1969, pl. 55).

**NIPPLE-BASE VESSEL:** Figure 23, 3, Figure 25 (64–38); also 64–43; both examples from the fill of D1, burnished red-slipped buff ware. I can find no published examples but am informed that similar vessels have been found at Câvusîtepe.

**POT STAND:** Figure 23, 1 (64–27); from the fill over the floor of B5 and belonging to Period 2; burnished red-slipped ware. Rolled upper and lower rims; four oval cutouts around the middle.
Askos: Figure 20, 5 (64-34), Figure 26; from the fill over the floor of C1; red-slipped buff ware. The vessel is egg-shaped with upright spout and handle; handle is grooved with a clay rivet at the base, and two rivet-like impressions over this. Askoi occur at Karmir Blur (van Loon 1966, fig. 11; Piotrovskii 1969, pl. 58, but painted). See Vanden Berghe 1968, p. 117, fig. 144, for an example from Luristan; examples in Copenhagen and the Louvre are said to have come from Luristan (Contenau 1935, pl. xvii, top; M. L. Buhl, Acta Archaeologica 21 [1950] p. 197 f., fig. 46, 47). Other askoi are reported from Patnos (Mellink 1965, p. 142). More examples are known further west: Hama (Riis 1948, fig. 84); Cyprus (Karageorghis 1969, fig. 31, 7th century B.C.). Related shapes occur at Persepolis.
wares with approximately mann-Haupt, coarse Blur goblet slipped Kroll clearly Schmidt I970, (Burton-Brown 1951, fig. 37, 121); Yanik Tepe (Burney 1962, pl. xlv, fig. 30); Baba Jan I, II (Goff Meade 1968, fig. 6, 19); Zendan (Boehmer 1965, fig. 75, c); Achaemenid Village (Ghirshman 1954, pl. xxxix, G.S. 1249d). For a later shape related to the askos, see Schmidt 1957, pl. 72, 13.

**Stem and base of a goblet:** From fill of D1; red-slipped burnished; light brown interior; fine clay core; clearly the finest red burnished vessel at Agrab. The goblet is one of the most characteristic shapes in the Urartian repertory. They are found at Bastam (Kroll 1970, p. 73 for bibliography, fig. 1, 4); Haftavan (apud Kroll 1970, p. 73); Kayalidere (Burney 1966, pl. xv, b); Altintepe, earlier level (Emre 1969, fig. 19); Karmir Blur (Piotrovskii 1959, fig. 50); Toprakkale (C. Lehmann-Haupt, *Armenien Einst und Jetzt* (Berlin, 1931) p. 567).

From the foregoing we see that the preponderance of the pottery at Agrab Tepe consists of buff wares, with coarse, burnished, and smoothed surface types in approximately equal proportions; buff unburnished wares seem to follow next in quantity. Medium and fine paste interiors occur mixed among these groups with no correlation to surface features other than that coarse wares do not have fine paste. In lesser quantity, but still considerable and very noticeable, are the red-slipped wares, usually slightly or well burnished. Aside from the unique vessels—the askos, nipple vessels, the pot stand, and the triangle-decorated pithoi—a few pithoi and small bowls are of this fabric. Rare, but in evidence, are a few burnished gray bowls.

The buff wares fired from yellowish through pinkish to orange. Often, gold flakes (mica?) are visible on the surface. Some of the red-slipped bowls also have these gold flakes on the surface, suggesting they were made locally, from the same clay source as the buff wares.

This ceramic collection makes it quite clear that Agrab Tepe was an Iron III site as defined by Dyson and Young, belonging to the “late buff ware horizon.”

Many of the sites of this period, as we have seen in referring to pottery parallels above, have not only the characteristic buff wares, but also the red-slipped wares; and also a small quantity of burnished gray wares (viz., Ziwiye, Achaemenid Village, Giyan I (Young 1965, pp. 59, 66, 68), Baba Jan (Goff Meade 1968, p. 116), Bastam (Kroll 1970, p. 70), Godin II (rare, personal communication with T. Cuyler Young, Jr., who also informs me that there are also a few red-slipped wares at Godin II). This configuration of pottery is characteristic for Iron III sites and need not be elaborated on here. Future research will have to define the cultural relationship and significance of the occurrence of red-slipped wares at Iron III sites and at most Urartian sites.

Noticeably lacking at Agrab Tepe are the fine wares recorded at Hasanlu IIIB, Ziwiye, and Qalatgah (Young 1965, pp. 55, 59 ff.; Muscarella 1971b, p. 46 f.), Yanik Tepe (Burney 1962, pl. xlv) and Pasargadae, unpublished; also the incised wares found at Ziwiye and Zendan (Boehmer 1965, fig. 75; Boehmer 1967, fig. 9). Painted pottery is lacking at Bastam, Godin II (except for three sherds, personal communication from T. Cuyler Young, Jr.), Geoy Tepe A, and Zendan. What, if any at all, are the chronological implications of this lack of local painted pottery at Agrab Tepe cannot yet be established. Actually it may have no chronological significance; rather, it could simply mean that it was a luxury product, and not needed at Agrab (but what of its lack at other Iron III sites?).

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Metal

**BRONZE HELMET EARFLAP:** Figure 27, 1 (64–9), Figure 28; fill over floor of B8. The border has two grooves and an exterior flat ledge with holes. Traces of thread found in situ on obverse, connecting holes; traces of leather found on both sides, on the obverse under the thread. Earflaps of the very same shape have been found at Hasanlu IV, but with decoration (unpublished). T. A. Madhloom, in *The Chronology of Assyrian Art* (London, 1970) p. 38, says separately made earflaps began in the 7th century, but this is contradicted by the Hasanlu evidence.

**BRONZE TRILOBATE ARROW:** Figure 27, 2 (64–6); upper fill of A2; remnants of wood in the shaft. The distribution of these arrows is quite extensive in the Near East and in Europe, see T. Sulimirski, “Scythian Antiquities in Western Asia,” *Artibus Asiae* 17 (1954) p. 295 f.; R. V. Nicholls, “Old Smyrna: The Iron Age Fortifications...,” *BSA* 53–54 (1958–59) p. 12; P. R. S. Moorey, *Catalogue of the Persian Bronzes in the Ashmolean Museum* (Oxford, 1971) p. 87; Boehmer 1965, p. 773 f., note 98 (n.b., Boehmer says they are found in the Phrygian level at Gordion but surely this is an error; they are found only in post-Phrygian levels). There is as yet no certain evidence that these arrows predate the 7th century in Iran (Dyson 1965, p. 207).

**BRONZE ARROW WITH TWO WINGS:** Figure 27, 3 (64–57). Similar arrows, without the side hole, occur at Hasanlu IV; Achaemenid Village II (Ghirshman 1954, pl. xliv, G.S. 2104); Karmir Blur (Piotrovskii 1959, fig. 81, right; fig. 84, left); Gordion (R. Young 1953, p. 164 f., 166, fig. 10, 6th century B.C.); and Smyrna (Nicholls, “Old Smyrna,” 130 f., pl. 6d, right, about 600 B.C.).

**BRONZE ARROW:** Figure 27, 4 (64–42); fill in D1; leaf shaped, flat on one side, with median strip on the other; solid ridged tang; found bent from use.

**IRON ARROWS:** Figure 27, 8, 9, 11, 12, 13 (64–10), from the fill of B8, and probably from Period 2 (a total of seventeen arrows were found here); 10 (64–37), from the fill of D1; 5, 6, 7 (64–51), East Trench; a) flat blade, solid tang, 5–7; b) blade oval in section, solid tang, 8–10; c) blade oval in section, with collar and solid tang, 11; d) blade oval in section, tang hollow but with iron core, 12, 13: traces of reed binding remain here. A total of twenty-one iron arrows were found, many very corroded. Similar arrows occur at Hasanlu IV; Bastan (Kleiss 1970, p. 54 f., pl. 34, 1, iron and bronze); Ziwiye, unpublished; Sialk B (Ghirshman 1939, pls. lxxi, S892e, lxxv, 5923c, d, lxxvii, 5793a); Haftavan (Burney 1972, pl. viii, b); Kayalidere (Burney 1966, fig. 21, 8, 9; pl. xiii); Karmir Blur (Burnett 1952, fig. 13); Altintep (Özgüç 1966, pl. xxxiv, 1–6); Toprakkale (Barnett 1954, fig. 15); Igdir (Burnett 1963, fig. 37, 4–7, 11); Nimrud (Mallo- wan 1966, II, fig. 332, a–c).

**IRON LANCE HEAD:** Figure 27, 14 (64–31); from fill in C1; very corroded; traces of wood in shaft.

**IRON SHAFTHOLE AX:** Figure 27, 15 (64–21); fill over primary floor of B7; very corroded; traces of wood in shaft.

**IRON TOOL, FERRULE?, PLOWSHARE?:** Figure 27, 21 (64–39); from fill in D1; hollow but for inner 9 cm. of tip. A similar, but smaller, object was found in Hasanlu IV; cf. also J. Deshayes, *Les Outils de Bronze...* II (Paris, 1960) pl. xvi, 16, 1235; Achaemenid Village (Ghirshman 1954, pl. xliv, G.S. 2109).

**BRONZE WOOD CLAMPS (THREE):** Figure 27, 16 (64–14a, b, c); fill over primary floor of B3; pieces of wood were found adhering to the inside of one example.

**BRONZE BOSS (TWO):** Figure 27, 17 (64–20); fill over floor of B10. Cf. Zendan (Boehmer 1965, p. 773 f., fig. 77a); Sialk B (Ghirshman 1939, pl. Ivi, S819); Karmir Blur (Piotrovskii 1969, fig. 79).
**Bronze Stud:** Figure 27, 18 (64-41); fill in D1; ends bent out intentionally.

**Iron Knife Blade:** Figure 27, 19 (64-30); fill in C1; cracked; flat in section at rounded end; tapers at blade end; a rivet pierces the metal at the grip end.

**Bronze Hook (?)**: Figure 27, 20 (64-48); from East Trench fill; thick, twisted circular shaft, divided and flattened at both ends.

**Bronze Bracelet Fragment:** Figure 27, 22 (64-47); from fill in East Trench; animal or snake head at ends.

**Bronze Bracelet:** Figure 27, 24 (64-15); from primary floor of B3; probably a child's bracelet; plain ends slightly overlap.

**Bronze Bracelet Fragment:** Figure 27, 25 (64-2); upper fill of A2; the ends are flattened with square corners and hollow depression; arc decorated with two rows of shallow lines.

**Figure 29**

Stone, bone, and terracotta objects from Agrab Tepe

**Bone; Stone; Terracotta; Ivory**

**Bone Implement, Shuttle (?)**: Figure 29, 1 (64-29); fill in C1; pointed at both ends; highly polished on upper surface. Two of these were found, the second in the East Trench fill.

**Ivory Fragment:** Figure 29, 2 (64-56); unstratified; triangular in section; no decoration.

**Bone Bead:** Figure 29, 3 (64-49); fill in East Trench.

**Two Terracotta Beads:** Figure 29, 4 (64-28); fill of C1; (64-18), fill in B8; buff, perforated for stringing. A third bead found in fill over primary floor of B7.

**Terracotta Whorl or Wheel Fragment:** Figure 29, 5 (64-12); upper fill in B area; buff.

**Stone Quern:** Figure 29, 6 (64-44); fill in D1; smooth on flat surfaces; break may be unintentional.

**Stone Object:** Figure 29, 7 (64-46); unstratified; gray stone, rough on upper surface, polished on lower; a projection below is broken. A pivot stone?

**Whetstone:** Figure 29, 8 (64-13); fill over B area; very fine grained dark brown stone; hole at one end.
It is obvious that the elaborate building at Agrab was built to serve as a fortified structure. The massive walls, tower-gate, and piers preclude another interpretation. And the hoard of slingstones, the helmet earflap, and the arrows and iron lance, reinforce this opinion; the pithoi would have served as storage vessels for the presumed garrison’s food.

On the other hand, one might conclude that a fort at Agrab makes little sense. It was built not on a high place on one of the ridges, but in an exposed position on the plain, in which position it could not have served as a watchtower. Moreover, the building is relatively small and presumably could not have contained many soldiers comfortably, even with an upper story. Agrab is also within sight of Hasanlu and may have had some relationship with that city; why then should a fort have been built so close?

At Bastam, Kleiss excavated an isolated building situated about 700 meters from the citadel. He suggested that this building, or castle, might have been built by an enemy force besieging Bastam. Such a conclusion cannot be presently proven, nor can we make a similar interpretation with respect to Agrab and Hasanlu. The people who built Agrab expected it to be a permanent structure, not a temporary fort. The fact that it was destroyed and rebuilt demonstrates its importance.

The geographical shortcomings notwithstanding, I believe the word fort best describes Agrab. It is also possible that the same people who lived at Hasanlu, or their allies or subjects, built Agrab. The similarity in the construction of the walls of Agrab and Hasanlu IIIIB, as well as the similarity of their pottery, lend support to this suggestion. If there was indeed a relationship, one might have to assume that the spring near Agrab was important and had to be protected, although there is no indication that the spring was protected in the earlier Iron II Period. And perhaps the rock outcrop close to the spring suggested itself to the architects as a natural spot on which to build a fort. One might also speculate that some feature or location other than the spring, not now known, might have been in need of protection. The fact remains that someone did build a fortified building in the low plain on a rock outcrop next to a spring. It should be recalled that Nush-i-Jan, to the south, was also built on a rock outcrop in the middle of a plain.

It is tempting to speculate further that the fort was built for, or at least served, another function, namely to protect something within its walls. The odd subdivided stone-paved room could have had a special function of some importance unknown to us. Insufficient data, however, prevent further consideration of this idea.

A question that must be asked, if not easily answered, is: which people built Agrab? If the same people who lived at Hasanlu, then the question covers that site also. Were they Urartians? Indeed, the ceramic evidence informs us that Urartian pottery was used at Agrab, though it does not tell us that Urartians either built or staffed the fort; the pottery could have been imported by non-Urartians. As Kleiss has stated, no Urartian site presently known in Iran exists in a plain; and no Urartian site known to me has a plan similar to that of Agrab. Several Urartian citadel walls have a series of uniformly spaced piers without a tower, and so, too, does Nush-i-Jan; but none has the unique Agrab plan.

What of the Medes and Manneans? Here, too, insufficient evidence prevents a conclusive answer. Given the geographical problems, and recognizing that different peoples and armies must have traversed the region in the seventh century, any suggestion becomes a mere guess. I therefore see no alternative to leaving the question of the ethnic identity of the builders and occupiers of Agrab open for future research. At the same time one is tempted to suggest that the occupiers of the site could have been either an Urartian garrison, using local help to build the fort (but who planned it?), or a local garrison of Manneans. But, to repeat, we do not know.

Whoever the people were who lived or worked at Agrab Tepe, they used the same basic types of pottery for their kitchen needs as that used by the inhabitants of contemporary cities and towns in western Iran. They also used a pithos type common to Hasanlu IIIA and to several Urartian cities. Moreover, some of the inhab-

6. van Loon 1966, p. 38, states that Urartians built fortified outposts to guard water supplies.
8. Kleiss 1970, figs. 34, 36; Kleiss, "Bericht über Zwei Erkundungsfahrten," figs. 18, 18a; van Loon 1966, fig. 6.
itants owned a few exotic pottery vessels, apparently all imported from Urartu. Therefore we may presume that they were in familiar contact both with Iranian and Urartian cities.

The inhabitants at Agrab Tepe stored their grain in large and small pithoi, at least one of which was impressed with seals, and they ground their grain on the premises. Aside from one possible agricultural tool, there are no other indications from the material remains to suggest that they were farmers. However, we do not know what was not preserved for us to find. Their water was obtained from the neighboring spring, and, as stated, they were within walking and viewing distance of a fortified city, Hasanlu. They used bows and arrows, slings, and lances as weapons, and they had body armor.

No luxury items aside from a few terracotta beads, and a few small (for females?) bronze bracelets were recovered. Some kind of wood furniture or apparatus was used, of which only the bronze clamps now remain.

We turn now to a discussion of the chronology of Agrab Tepe within the Iron III period. To begin with, it must be pointed out that specific dates for the beginning and end of most sites of this period have yet to be firmly established. Speaking generally for northwestern Iran, Iron III begins sometime after the destruction of Hasanlu IV in the ninth century B.C., presumably after a hiatus of still undetermined length. But the complex and still unresolved chronological difficulties surrounding the beginning, flourishing, and end of the Sialk B culture to the south play a crucial role in any discussion of the end of Iron II and the beginning of Iron III, and not only for central Iran, but also for the north.

A brief discussion dealing with the opinions of various scholars concerned with Sialk: Ghirshman and Porada see Sialk B as an Iron II site both in culture and date, terminating about 800 B.C., about the same time as Hasanlu IV. Dyson and Young accept the possibility that Sialk began in the late ninth century, contemporary with the last phase of Hasanlu IV, but see the culture continuing to exist until about 700 B.C. (Young), or to about 650 B.C. (Dyson). Goff Meade seems to agree with this, preferring Young’s final dating to that of Dyson. She and Young also still use the term Iron II to define the flourishing of Sialk, Goff Meade calling the eighth century “late Iron II,” which suggests that Iron II continued to exist at Sialk for at least a century later than in the north. Bohmer attempts to divide Sialk B into an earlier and a later period (B1 and B2), the former beginning in the late ninth century, the latter beginning about 770–760 B.C., after the destruction of Hasanlu IV, and ending about 690–680 B.C. The question to be answered, considering these various opinions, is: do we consider Sialk B to be strictly an Iron II culture, contemporary with but divergent from Hasanlu IV (Porada, Ghirshman), or initially an “Iron II” culture that began in the ninth century and continued (uninterrupted) into the eighth century (or slightly later) (Dyson, Young, Goff Meade, Bohmer), developing into what archaeologists call Iron III culture, and perhaps even having been the precursor of that culture? How one interprets the nature of the anomalous Sialk B material (only cemetery remains, let it be noted), and also perhaps the early phase of Zendan, will determine whether one sees Sialk as Iron II, late Iron II, or Iron II/III. Surely a chronological and cultural distinction for the terms Iron II and III may have to be established.

Whatever the outcome of discussions concerning the culture and chronology of Sialk B, Agrab Tepe remains an Iron III site, and to that site we now return.

At Agrab Tepe five C14 samples were tested for dat-

By Young’s own terminology some of the Sialk B material (but which?) must be considered as Iron III, op. cit., pp. 27 f.; and Goff Meade’s late Iron II overlaps with Young’s Iron III.
13. R. M. Bohmer, “Zur Datierung der Nekropole B von Sialk,” AA (1965) pp. 802 ff. Note that some of the pottery in his earlier-period tombs occurs also in his later tombs. To add to the confusion about the dates of Sialk B, note that of the five ceramic parallels Young finds between Hasanlu IV and Sialk B (Young 1965, pp. 76 f.), only one, the gray ware spouted pitcher, is to my mind a strong parallel; and of the nineteen nonceramic parallels he cites between the two sites, at least fifteen are in Bohmer’s B2 late tombs (Young 1965, p. 76, note 28).
14. My present opinion is that Sialk B existed into the 8th century, but I have no strong opinion as to whether or not it can be stated that Sialk existed in the 7th century, nor if it began to exist in the 9th century. But note that if, in fact, the designations Iron III is to be used only or mainly as a cultural term—to define the appearance of painted wares and oxidized buff wares—and not simply as a chronological term signifying a period following
The results given here use a half-life of 5730 years and should be corrected by a MASCA correction factor of +50 years (as of 1972). From the floor of C1, P-895, charcoal: 79±556 b.c. (845 b.c.) from Period 1 of area D, P-980, charcoal: 667±58 b.c. (717 b.c.): ave. 781 b.c.±57. From Period 2 fill of area D, P-979, charcoal: 581±53 b.c. (631 b.c.). From high in the fill of Area A, P-893: 408±48 b.c. (458 b.c.). From high in the fill of Area A, P-894, charcoal: 710±57 b.c. (760 b.c.); and a sample, probably from Period 2 of Area B, P-879, a burned beam: 513±56 b.c. (563 b.c.): ave. 597 b.c.±55. We thus have an outer range of dates for Period 1 to be 898–724 b.c.; for Period 2, 652–542 b.c.; and possibly for Period 3 (assuming P-893 to be from this time), 506–410 b.c. P-894 is assumed to be an aberrant. Given the chronological range of over three hundred years it seems that we should accept these carbon dates as a guideline rather than as data pointing to specific historical dates.

Pottery comparisons with other sites in Iran and Urartu allow us to make better judgments about chronology. We have seen that there are ceramic parallels between Agrab and most of the known Iron III sites. In terms of quantity, which of course could be accidental, the strongest ties are with Hasanlu IIIB and A, Bastam, Ziwiye, Zendan (I and II), and Godin II; other ties, less strong, are with Haftavan, Baba Jan (I and II), the Achaemenid Village (I and II), and Geoy Tepe A. A brief summary of the chronology of these sites is in order here; it will be seen that most were seventh century b.c. sites that ceased to exist about 600 b.c.

Very little of the Hasanlu IIIB and A material is available for study, and basically the two periods remain unpublished. What may be said at present about the two levels is this: the beginning date of IIIB is still not known; it could be from about 750 to 700, or perhaps even later, as it is clear that IIIB followed upon a squatters’ settlement over Period IV (called IVA by Dyson) of unknown duration. The destruction of IIIB (on parts of both the western and eastern areas of the mound ash and charcoal layers document a fire) occurred sometime in the seventh century; this is not in doubt. On the western part of the mound IIIB walls were partly reused in Period IIIA, and some new walls were built over the earlier ones; on the eastern side of the mound there is an ash and trash layer 50 cm. wide over the IIIB level. IIIA’s beginning, and more important, its termination date are still major problems. It is possible, to my mind, that IIIA ceased to exist (abandoned?) close to 600 b.c.; more excavation and analysis of pottery, however, may make it necessary to extend this date well into the sixth century, beyond 585 b.c.17

The end of the settlement at Bastam has been dated by Kleiss and Kroll to the late seventh century or early sixth century b.c. on the basis of Urartian pottery comparisons. This date seems acceptable on the evidence presented (and neatly ties in Bastam’s destruction with that of Agrab’s [Period 1, at least], especially since both sites depend a great deal on Urartian remains for their chronology).

As Dyson has stated, any discussion of Ziwiye must distinguish the archaeological site itself from the so-called Ziwiye treasure. He has proposed a dating of about 750 for the beginning of the site and a terminal Pennsylvania Radiocarbon Dates IX," Radiocarbon 8 (1966) pp. 348 f. Recent information (1972) suggests that we may have to revise past C14 dates upward again.


17. Dyson 1965, pp. 211 ff., and Young 1965, pp. 81 ff., have IIIA continue into the Achaemenid period. Kroll 1970, p. 76, note 105, suggests that Hasanlu IIIA ended ca. 600 B.C. on the basis of the triangle-pithoi found at Hasanlu and Urartian sites. If C14 dates are to be pushed back in time, this situation would support an earlier date for the termination of Hasanlu IIIA than suggested by Young and Dyson. For a hiatus between Hasanlu IV and III, Young 1965, pp. 57 ff., 80.


date of about 600 for its abandonment.20 Young and Boehmer generally agree with this range of dates.21 There seems little doubt but that the final period at Ziwiye occurred either in the seventh century, probably toward the end of that century, or possibly early in the sixth century.

Zendan had two settlements. The beginning of the earlier one, period I, is dated by Boehmer close to 800 B.C., on the basis of parallels with Hasanlu IV; he dates the end of the second settlement, II, to the late seventh century.22 Young dates the beginning of the earlier period later than Boehmer, preferring a date between 750 and 650 B.C., but he also believes that the site continued to the end of the seventh century (for the second period), being contemporary with the end of Ziwiye. Thus he agrees with Boehmer that the late seventh century was the final date at Zendan; Dyson has also supported this dating.23 The strong parallels between Zendan II and Ziwiye pointed out by Young make it clear that about 600 B.C. is the probable date for the end of period II.

The excavator of Godin Tepe, T. Cuyler Young, Jr., has cautiously given a wide range of almost 200 years, 750 to 550 B.C., as the time within which the columned hall and fortress were built.24 It would seem from the pottery evidence, however, that the end of Godin II could be placed in the late seventh or early sixth centuries, given the parallels with Ziwiye and Zendan II (not to mention Agrab, to avoid a circular argument). Nor do I think it can be demonstrated on the evidence available that Godin II was built much before the beginning of the seventh century B.C.

Geoy Tepe A is a mixed complex, and it cannot help in dating any Iron III site; rather, it must be dated by comparisons with other sites. Nor can the limited remains from the upper levels at Haftavan at present be of help to us in chronology.25 It would seem that the levels could be dated only from evidence available at other sites.

Goff Meade has compared the ceramics from Baba Jan to those found at Pasargadai, Godin II, and Nush-i-Jan.26 She suggests that Baba Jan II is eighth century, not earlier, and that Baba Jan I is probably sixth century B.C., because of parallels with Pasargadai (unpublished). The Agrab parallels with Baba Jan seem to be with both periods, but aside from a general Iron III relationship, we get little specific chronological help from this site.

The pottery parallels between Agrab and the Achaemenid Village are basically in the levels I and II. These are dated by Ghirshman to the seventh–sixth and sixth–fifth centuries B.C., and he has been supported in general by other scholars.27 None of the shape–parallels from the Achaemenid Village, except the lip spout of level I, are crucial enough to basically affect the chronological relationship to Agrab Tepe.

Two other Iranian Iron III sites with a few parallels to Agrab Tepe are Nush-i-Jan and Yanik Tepe. Both have been dated by their excavators to a time in the seventh century B.C.28

Turning now to the Urartian sites outside of Iran that have ceramic parallels with Agrab, we find that the strongest ties, not necessarily with respect to quantity, but to a very characteristic shape, are with Karmir Blur, Altintepe, Norşuntepe, Patnos, Cavuştepe, and Igdyr; lesser ties are with Toprakkale, Kayalidere, and Kef Kalesi. Some of these Urartian sites are not yet completely published so that we are not always able to discuss Urartian pottery types, nor to discuss their chronology with certainty.

Although there is continued discussion concerning the precise time when Karmir Blur was destroyed, it seems that the event must have occurred close to 600 B.C., apparently before 585.29 The finds from the

23. Young 1965, p. 82; Young 1967, p. 271; Young 1969, p. 50; Dyson 1965, pp. 201 f., 211, agrees that the early period is Iron II.
25. Burney 1970, p. 182, suggests a late 8th- to early 7th-century date; Burney 1972, p. 142, suggests that Haftavan was destroyed by Sargon II in 714 B.C., but presents no objective evidence.
26. Goff 1970, p. 155; Goff Meade 1968 pp. 121 f.; actually, little of the pottery has been published.
final, second, period at Altintepe also seem to date to this time; and it appears that the material from the end of the first period may also be dated within the seventh century, although the site may have been built in the eighth century.20

Kayalidere has not been more closely dated than to the eighth–seventh century. But if we can use the pithoi decorated with triangles as a guide, it could be that the destruction here occurred around 600 B.C., close to that of Karmir Blur’s destruction.31

At Patnos inscriptions of several Urartian kings have been found; they date from the late ninth through the middle eighth century B.C. Later archaeological material is in evidence, however, and it seems clear that the site existed through the seventh century, possibly even a little later.32

Cavuştetepe was apparently built in the mid-eighth century B.C. and continued to flourish for some time. Evidence for this comes in the form of fibulae and “Scythian” arrowheads, that is, trilobate and spiked types, found in the destruction fill.33

Toprakkale was built in the eighth century and continued to flourish until the late seventh, judging from inscribed material found there.34 Kef Kalesi is another site that flourished during the seventh century, as evidenced from inscriptions, and it too may not have lasted beyond about 600 B.C.35

Norsuntepe, a site to the west of Urartu proper, and probably not an Urartian site, surprisingly has yielded some good ceramic parallels to Urartian types and also to pottery from Agrab. Hauptmann distinguishes an early and a middle Iron Age period, the earlier of which he dates about 800 B.C. (too early?), the latter to the eighth and seventh centuries B.C. Most of the Agrab parallels are in the middle period.36

The preponderance of the ceramic evidence presented strongly suggests that Agrab Periods 1 and 2 flourished during the seventh century B.C.; the C14 evidence generally supports this conclusion. Most of the ceramic parallels in Iran and Urartu occur at sites dated to the seventh century. Aside from the many seventh-century Iron III Iranian ceramic comparisons made, the best pieces of evidence for the suggested dating of Agrab are the Urartian vessels: the pithoi with triangles, the large red ware pithos decorated with triangles, the red ware nipple-based vessels, the red ware askos, and the red ware stemmed goblet, a classic Urartian shape found at many Urartian sites.

If it can be accepted as a historical fact that the Urartian cities referred to in this paper were in fact destroyed close in time to each other, say between the last years of the seventh century and 585 B.C., we may then feel secure that Agrab Tepe also ceased to exist during this time.

The political and archaeological history of western and northwestern Iran in the seventh century B.C. is still not fully understood. Several unresolved problems persist. First, there is the major problem of ancient geography: we are still unable to link up satisfactorily specific areas of northwestern Iran to the historical states and peoples mentioned in ancient texts. Consequently, excavated sites must continue to maintain their modern names. A perusal of the published opinions of several scholars who have discussed the ancient position of Parsua, Mada, and Mannea from the ninth century onward demonstrates to the archaeologist the danger of assigning an ancient name to a modern area.37 We are not able at present to relate sites to ancient states and then to tie these into historical events related in the texts.

31. Burney 1966, pp. 55 ff., 79. Burney links the destruction to the Kimmerians, who first appear in Urartu in the last years of the 8th century. Note that triangle-pithoi occur at the termination of Hasanlu IIIA and Agrab 1, events no doubt close in time but not necessarily simultaneous; see my note 17.
36. Hauptmann 1970, pp. 64, 67, 73. Hauptmann, p. 71, notes that a fibula was found in the middle period; it is a type that cannot be earlier than the late 8th century and continued to be used for centuries.
Secondly, there is the problem concerned with understanding and recognizing the movements of peoples and the actions of their armies in the area. What political event, and what army, destroyed Agrab and neighboring sites? We know that Scythians were somewhere in western and northwestern Iran after about 700 B.C., as allies first of the Mannaeans and then of the Assyrians, and that they were subsequently expelled. The date of the Median revolt against them and their expulsion preceded by their twenty-eight-year hegemony over western Iran, is still being debated. We are, however, able to state that all this occurred by 585 B.C., by which time the Medes controlled all of western Iran and Urartu, and Anatolia up to the Halys River. 38 We also know that in the seventh century the Assyrians penetrated into Median and Mannaean territory several times, although we are not sure how far north they traveled. There were also local wars and disruptions that surely resulted in destructions and rebuildings. In addition to these events, we now know from the Agrab excavations that contact with Urartu existed in the south Urmia area up to the time of the destruction of the Urartian state. If we could be certain that Urartians themselves were in the area around 600 B.C., then another element would have to be introduced into the already confused historical scene. Actually, as already discussed, all we can determine with respect to the Agrab evidence is an “archaeological presence” of Urartians; we cannot be certain that Urartians themselves was there. In any event, Agrab supplies important evidence concerning Urartian material in the Solduz Valley about 600 B.C. 39

Given the military presence of different peoples in western and northwestern Iran, are we able to relate chronologically and historically the destructions at Agrab to those of Hasanlu III and to the other Iron III sites in Iran? (Actually, some Iron III sites were destroyed—Hasanlu III, Bastam, Haftavan, Zendan II, Baba Jan III—while others—Hasanlu IIIA, Ziviye, Godin II, Nush-i-Jan—were abandoned.)

Of particular interest for future research is the possible correlations of Agrab’s destructions to that of Hasanlu III and the abandonment of IIIA. We have seen that there are strong ties, reflected ceramically, between Agrab and Hasanlu III and A. An interesting one is the pithos decorated with triangles, which occurs in the destruction of Agrab I and Hasanlu IIIA. This by itself cannot make these two periods contemporary, one to one, as there are many Hasanlu IIII parallels also to be considered. There are simply too many unknowns at present to allow any neater and more explicit equation than one stating that Agrab was contemporary to Hasanlu III and A (at least in part). Whether Agrab was originally built at the same time as Hasanlu III, or slightly earlier, or later, and whether occupation continued at Agrab after the destruction of III and before the building of IIIA, and whether IIIA continued to exist after the end of Agrab, are questions that arise in one’s mind, but to which there are no immediate answers. Perhaps the publication of the complete Hasanlu material will shed light on these questions.

With respect to the issue of relating the destruction of Agrab Tepe (Periods 1 and 2) with the destructions and abandonments of other Iranian Iron III sites, two hypotheses come to mind. The first is that they all occurred at about the same time. An event or related events occurred in Iran about 600 B.C., causing the destructions of Agrab and the end of the settlements at Bastam, Haftavan, Zendan II, Ziviye, Godin II, Nush-i-Jan, and probably also Baba Jan II, not to mention again Hasanlu III. The activities causing these destructions could have taken place over a period of several, say one to fifteen, years; nevertheless, they were related. The time period covered would extend from about 600 to 585 B.C. Moreover, and important, is the fact that, given the chronological connection between Agrab Tepe and Urartu already discussed, it could legitimately be added here that the same historical event or events may have caused the destruction of the Urartian state. This hypothesis will obviously deserve more scrutiny, but if the chronological link of the destruction of the Iranian Iron III sites and the Urartian cities, based on pottery parallels, holds up, such a conclusion is not rash.

What then can be said about this alleged historical event? A date of about 600 B.C. automatically elimi-


nates the Assyrians. And there seem to be only two historical events, themselves related, that can be brought forth for consideration. One is the exodus of the Scythians from Iran, the other is the northward expansion of the Medes, through north Iran, Urartu, and eventually west to Anatolia. Again, this suggestion deserves further study, but no other large-scale action occurred in Urartu and Iran at this particular period.

The second hypothesis, also to my mind viable in that it does not abuse the limited evidence, is that the sites in question were destroyed or abandoned over a slightly longer period of time than suggested by the first hypothesis. Thus, one could assume that some of the sites could have ceased to exist about 600–585 B.C., while others could have ended about 550, say at the time of the Achaemenid revolt against the Medes. One would then have a time differential of twenty-five to forty years between the end of one particular site and another. In this context it must be understood that we do not yet have an idea of what early sixth-century B.C. and early Achaemenid pottery looked like, and it is quite possible that there was no major ceramic change between about 600–585 and about 550 B.C. The fact that pottery analysis at our present state of knowledge might not allow us to detect a chronological difference between pots used at different neighboring sites over a period of a few decades is the crucial factor here. This hypothesis, incidentally, might also cover the problem of the difference between the destructions at Agrab 1 and 2, and Hasanlu IIIB and A, but it would be premature to push this idea now.

In any event, these are nothing more than working hypotheses, to be challenged or supported as more ceramic, archaeological, and historical information comes forth. The end of the seventh and the first half of the sixth century B.C. in Iran and Urartu was a time of chaos, destruction, and abandonment for its people, and it is a time of chaos for modern historians.

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