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# BRONZE AGE

**BRONZE AGE,** in Iranian archaeology a term used informally for the period from the rise of trading towns in Iran, ca. 3400-3300 B.C., to the beginning of the Iron Age, ca. 1400-1300 B.C. It was originally adopted as part of a chronological system based on assumptions about successive changes in the use of raw materials for tool manufacture, but, along with Iron Age and other comparable terms, it has long since lost any precise meaning in relation to technology. More commonly today, however, it simply refers to archeological sites and events regarded as occurring after the Neolithic (more precisely, after the Chalcolithic) era and before the Iron Age, and this sense is the one that has been adopted here.

Archeological knowledge of Bronze Age Iran has been derived primarily from intensive regional studies in which systematic surface surveys have been combined with excavation at sites having long, well-defined stratigraphic sequences and with more limited excavations designed to obtain information on specific periods (Figure 29; for an outline of the results of these excavations, a detailed chronology, a discussion of chronological problems, and a full set of references, see Voigt and Dyson).

During the Bronze Age the populations of the Iranian plateau, bounded on the east by the Hindu Kush and the Himalayas and on the west by the lowlands of Ḵūzestān and Mesopotamia, prospered greatly, owing to rich natural resources and the overland trade routes between the western lowlands and the Indus valley, central Asia, and Afghanistan. There is evidence that at the end of the 4th millennium B.C. settlements throughout Iran were linked in a

common cultural network, the “Proto-Elamite horizon.” Subsequently, however, distinct regional cultural and political systems and a major division between eastern and western Iran developed. As these regions exhibited strong cultural continuity throughout the Bronze Age, cultural development in each will be traced from the Proto-Elamite period.

*Southwestern Iran*. Modern archeological research on Iran began in the lowlands of Ḵūzestān, known in antiquity as Elam. This region passed from the prehistoric into the protohistoric period in the mid-4th millennium B.C. The most important site in the region is Susa, where in 1897 a French mission began work that continued intermittently until 1977. In the early years large settlement areas were excavated; more recently the focus has been on detailed stratigraphic analysis (see Carter and Stolper). The results of intensive surface surveys on the surrounding Susiana plain have been summarized for this period by J. Alden (1987) and R. Schacht (cf. Wright, for the adjacent Deh Luran [Dehlorān] plain).

At Susa a great many texts in Proto-Elamite script (including both pictograms and numerical symbols) have been found on small clay tablets dated to the end of the 4th millennium (Meriggi, 1971). This script was superseded by cuneiform writing borrowed from Sumer in about 2300 (Carter and Stolper). The pottery of the earliest Proto-Elamite level (Susa III) is quite different from that of the underlying (Susa II) deposits, which are contemporary with the Late Uruk period in Mesopotamia (ca. 3500-3100 B.C.); in contrast, the Susa III pottery has parallels with that of the Jemdet Nasr (Jamdat Naṣr) and Early Dynastic I period in Mesopotamia (ca. 3100-2800 B.C.). Proto-Elamite Susa is estimated to have had a total area of about 11 ha, but the excavated architecture provides little information on community organization. Elsewhere on the Susiana plain there were only small, scattered settlements.

The influence of Susa, revealed through the presence of Proto-Elamite tablets, cylinder seals, products bearing seal impressions, and selected pottery types, extended far to the east and north, where trade in raw materials and manufactured goods among a series of cities and towns was well established by 3100 B.C. The geographic range of this Pro-Elamite network encompassed the plateau as far east as Shahr-i Sokhta (Šahr-e Sūḵta) in Sīstān and Tepe Hissar (Ḥeṣār) on the Damghan (Dāmḡān) plain in the north. The archeological evidence from Proto-Elamite sites differs, and the exact nature of the economic and political ties among them therefore remains problematic. Nevertheless, such settlements as those of Susa III, the Banesh (Baneš) period

at Tal-e Malyan (Tall-e Malīān), Sialk (Sīalk) IV:2, Tepe Yahya (Yaḥyā) IVC, and Shahr-i Sokhta I/II produced Proto-Elamite texts and glyptic finds that suggest both shared ideology and economic ties (Carter and Stolper; Alden, 1982; Amiet, Dyson, 1987; Finkbeiner and Rollig; Lamberg-Karlovsky, 1977; idem and Tosi; Weiss and Young).

To the east of Ḵūzestān the prehistoric period is well documented in the Kor river basin of Fārs province. The major excavated Bronze Age sites in this region are Malyan (Sumner) and Darvazeh (Darvāza) Tepe (Jacobs). Surface surveys conducted by Louis Vanden Berghe, William Sumner, and others have shown significant changes in settlement patterns and economic life during this period (Sumner, with references). In the Banesh (Proto-Elamite period) there was a smaller settled population in this region than in previous times, probably as a result of a broad shift from sedentary farming to pastoral nomadism. Malyan itself was a city, with a built-up area of about 50 ha. (In the Late Banesh period this area and about 150 ha of open space were enclosed by a wall.) Excavation has produced evidence of craft specialization, for example, production of small personal ornaments from imported raw materials. A large number of Proto-Elamite tablets, cylinder seals and sealings, and ceramics from Banesh Malyan are directly related to those in Susa III, evidence of strong contact between the two regions. There is, however, no evidence of political domination by Susa, and Sumner has suggested that Malyan was “the seat of a local tribal khan who exercised some form of political authority over the settled population and the pastoral nomads [of Fārs]” (p. 317). During the later 3rd millennium, when Susa and the lowlands were under the domination of Mesopotamian rulers, Ḵūzestān and Fārs showed greater cultural divergence. In Fārs after the Banesh phase there was a “severe depopulation” of the Kor river basin, lasting approximately from 2600 to 2200 B.C. There is no evidence for agricultural settlement, but the area is assumed to have been used by pastoral nomads.

Settlement data from the succeeding Kaftari phase (2200-1600 B.C.) in the Kor river basin suggest a state organization centered on the walled city of Anshan (Tal-i Malyan) and the reestablishment of ties with the lowlands. The rulers of Fārs also played a role in political developments in Mesopotamia: Both the Akkadian king Maništusu (2269-2255 B.C.) and Gudea of Lagash (2143-2124 B.C.) claimed to have defeated Anshan, and subsequently the city became part of the Elamite political sphere (Carter and Stolper, pp. 13-16; Sumner, pp. 316-18). Little is known about Fārs from 1600 to 1300 B.C.; the population again

declined, and the remaining settlements were divided into two geographically distinct cultural groups, named Qale (Qaḷʿa) and Shoga Teimuran (Šoga Teymūrān) by William Sumner (Sumner; Jacobs).

*The southeastern plateau*. Excavations at Tepe Yahya in Kermān province have uncovered occupation levels dating from the end of the 4th and the 3rd millennium (Lamberg-Karlovsky, 1970, 1977; Potts, 1980); intensive surface surveys have yielded further data (Prickett). In the Proto-Elamite period (IVC) Yahya was a large village or a small town in a sparsely populated region. Excavation has revealed a large building with a number of rooms that contained artifacts associated with economic administration: inscribed Proto-Elamite and blank tablets, seals and sealings, and pottery vessels apparently imported from Elam. This structure has been interpreted as an enclave for foreigners, because contemporary domestic structures on the mound contained artifacts and ceramics typifying a continuous indigenous cultural tradition. During the middle and late 3rd millennium (IVB) Yahya specialized in production of vessels and other small objects from chlorite, a soft stone that is abundant locally (Kohl). These items were exported to Mesopotamia, probably by way of Susa, and to settlements along the Persian Gulf, which conducted a flourishing sea trade extending as far as the Indus valley.

North of Yahya, on a deltaic fan at the western edge of Dašt-e Lūt, Shahdad (Šāhdād, historic Ḵabīṣ) has been explored by means of excavations in a cemetery and a surface survey of the settlement (Hakimi; Salvatore and Vidale). The site was apparently occupied during the Proto-Elamite period, though the evidence has not yet been fully reported. In the second half of the 3rd millennium it was an active production center for artifacts of copper and semiprecious stones like agate, carnelian, and chalcedony. A large cemetery of pit graves yielded metal tools, vessels, and ornaments. Quantities of ceramics bear incised and stamped signs related to the older Proto-Elamite script. Similar pottery with some of the same signs was found in Yahya IVB and A (Potts, 1981). Several cylinder seals from Shahdad, apparently depicting a vegetation goddess, are also paralleled in contemporary levels at Yahya. Unique modeled clay busts of men and women have been compared with the stone sculptures of Early Dynastic II in Mesopotamia (ca. 2700-2600 B.C.). Two types of artifact from the cemetery, compartmented copper stamp seals and miniature columns of limestone, are common at sites of the same period in eastern Iran and central Asia and provide evidence of long distance trade on the eastern plateau. No doubt Shahdad served as a point of departure for the

dangerous journey across Dašt-e Lūt to northeastern and eastern Iran.

The farthest eastern extension of the Proto-Elamite network has been documented by a single tablet, seals, and sealings from period I at Shahr-i Sokhta. This site on the Helmand delta, which has been explored by means of surface surveys and extensive excavations of both the settlement and cemetery areas, was founded around 3200 B.C. (Tosi, 1983). By the mid-3rd millennium (periods II-III) it had grown into a major urban center covering 80 ha, surrounded by rural villages each with a surface area of between 0.5 and 2 ha. At the height of its development Shahr-i Sokhta was divided into functional zones, with an area devoted to public and administrative buildings, residential quarters, and a cemetery covering 21 ha. Productive activities were initially scattered but were later concentrated in what may have been a craftsmen's quarter. Crafts documented at the site include the working of lapis lazuli, turquoise, chalcedony, quartz, and flint, as well as of copper. Pottery was manufactured at a small specialized kiln site (Rūd-e Bīābān) located about 30 km away; the styles of painted pottery were shared with central Asia and Baluchistan. During the mid-3rd millennium Shahr-i Sokhta was apparently the largest settlement on the eastern Iranian plateau. Whether or not a state organization had been achieved remains a matter for speculation. Nevertheless, given the size of the settlement and the complexity of its spatial organization, the presence of a state apparatus in periods II-III seems likely.

*The central and northern plateau*. The influence of Proto-Elamite Susa can also be seen in the mountains of central western Iran and along the northern east-west overland route via Sialk (near Kashan/Kāšān) to Tepe Hissar. In the central Zagros the best known Bronze Age sequence comes from excavations at Godin (Gowdīn) Tepe in the Kangāvar valley (Young and Levine). In the last quarter of the 4th millennium an enclave of lowland traders (or indigenous administrators with strong ties to the lowlands) had been established there (periods VI-V; see Weiss and Young). A complex of buildings in an open court was surrounded by an oval wall. Within the enclosure such exotic items as tablets (all numerical except for one example inscribed with a single non-numerical character), seals and sealings, and types of ceramic vessels identified with the lowlands were found, as were objects of local manufacture. The latter included pottery typical of preceding occupation levels (period VI) and of contemporary settlements on the surrounding plain and in adjacent valley systems as far north as Bījār and south into Luristan. The oval enclosure at Godin was apparently abandoned in some haste, for numerous pots and

other objects were left on the floors of the buildings. Following a brief (?) hiatus the settlement was reoccupied around 2700 B.C. by people with a very different material culture (Godin IV, "Yanik period"; see "Northwestern Iran" below), including dark, burnished pottery with incised and white-filled decoration. These people had apparently migrated to the Kangāvar area (and to the Qazvīn and Malāyer plains) from northwestern Iran and ultimately from across the Caucasus (Burney and Lang, p. 59).

The later Bronze Age is well documented for the Kangāvar region, owing to excavations over a large area at Godin (III: 6-2) and to extensive surface surveying (Henrickson, 1987, with references). Surrounding valleys, including the Māhī Dašt, or Kermānšāh plain, are known only from surface surveys and limited soundings (Henrickson, 1987; Schacht). For Luristan survey data are supplemented by excavations at a series of cemeteries in the Pusht-i Kuh (Pošt-e Kūh; Vanden Berghe); these burial grounds are not associated with settlements and may indicate the presence of nomadic pastoralists in the area. Historical sources from Susa and Mesopotamia attest that in the middle and late 3rd millennium the Zagros valleys were occupied by ethnic groups called Guti and Lulubi and were under the control of the Elamite dynasties of Awan and Shimashki (Carter and Stolper, pp. 10-23; Gadd, pp. 429ff.; Schacht). The archeological evidence (see Henrickson, 1987) indicates that at the beginning of this period, during the occupation of Godin III:6, large parts of the central Zagros shared a distinctive ceramic tradition, with more distant links to Ḵūzestān (Susa IV) and Fārs (Late Banesh). This pattern is generally interpreted as an indication of shared contact and economic (rather than political) ties. When Susa came under the control of the Akkadian dynasty, diverging ceramic styles within the mountains reflect isolation from the lowlands. This isolation appears to have persisted after Susa became part of the Ur III state, though both peaceful and military contacts have been documented in texts. Finally, in the early 2nd millennium settlements like the town designated Godin III:2 were linked in a broad cultural zone, attested by elements of a ceramic style that extended throughout central western Iran. This common style may reflect a degree of economic and political unity as well: It has been suggested that the central Zagros was the location of the kingdom of Shimashki, contemporary with the Sukkalmah dynasty at Susa (Henrickson, 1984).

Farther east the Proto-Elamite occupation of Sialk IV:1-2 was contemporary with Godin VI/V, though it lasted into a slightly later period. Like Shahdad,

Sialk is located on a deltaic fan at the edge of the central desert. Limited excavations in the ruins of several small mud-brick structures produced diagnostic artifact types (tablets, glyptic, and ceramics) that clearly demonstrate contact with Godin and Susa (Dyson, 1987). As at Godin, however, other elements of material culture show a continuing local cultural tradition. The importance of Sialk within the Proto-Elamite network may have been owing to its proximity to a major source of copper at Anārak; the geographical location of Sialk was equally critical, for it lay on the route from Susa to the north via Fārs (Amiet). Shortly after the beginning of the 3rd millennium Sialk was abandoned; it was not resettled until the Iron Age, late in the 2nd millennium.

Still farther east, along the northern edge of the desert on the northern east-west route, often called the “high road,” is Tepe Hissar (Schmidt; Dyson and Howard), near Damghan. It is also located on a rich deltaic fan, and its population was able to draw on the natural resources of both mountains and plain. In about 3000 B.C. a Bronze Age town (Hissar Middle and Late II) evolved from the earlier settlement (Hissar I-Early II). It consisted of small houses of mud brick separated by open spaces and unpaved walks. About a third of the town was given over to craft production, especially smelting of copper and production of copper objects and working of large quantities of lapis lazuli, a raw material imported from the area that is now northern Afghanistan. Unoccupied parts of the mounds were used for burials. A major innovation characterized this period of town life: the introduction of reduction kilns for the mass production of burnished gray pottery imitating metal vessel forms. Soon this gray ware had almost entirely replaced painted pottery. Although copper technology was already known in Hissar I, more extensive smelting of copper ores led to an increase in the number and types of metal objects produced in Hissar II. The importation of lapis lazuli and turquoise demonstrates links with the east, but at the same time blank clay tablets of the size and shape characteristic of Proto-Elamite tablets, clay tokens (cones, balls, and other forms), and a single cylinder seal show continuing contact with the west. The large number of burials at Hissar from the middle of the 3rd millennium is evidence of considerable wealth within the community. Although the town was somewhat reduced in area, it contained a special, well-built structure filled with rich materials: copper, gold, and silver vessels and weapons. This building housed a small fire altar in one corner of the main room and may have been a shrine. A compartmented bronze stamp seal with a stepped-square design links it to Altyn Tepe, a contemporary urban center in

southern Turkmenia. The building at Hissar was destroyed by fire, clearly as the result of violent attack: Remains of a number of bodies were found sprawled on the floor, and the surrounding debris was filled with stone arrowheads. Little is known about the town at Hissar during the remainder of the Bronze Age. In the last phase of its occupation (III) yellow alabaster or calcite objects increased in quantity. Among them were miniature columns with grooved ends, which have now also been found at Tureng (Tūrang) Tepe in Gorgān, in southern Turkmenia, in Bactria, in Sīstān, and at Shahdad. The contexts of these finds can be interpreted as religious, suggesting that some kind of cult practice linked all of eastern Iran at the end of the 3rd millennium.

North of Hissar, across the Alborz (Elburz) range at the southeast corner of the Caspian plain, lay the town of Tureng Tepe (Deshayes, 1977, with references). Like Hissar it had been founded much earlier and remained occupied into the 2nd millennium B.C. Although the pottery and artifacts of Tureng and Hissar II differ somewhat in style, there are many similarities, and both centers participated in the lapis lazuli trade. The outstanding feature of Bronze Age Tureng was a major terraced mud-brick structure built around 2000 B.C. It was 80 m long and rose 13.50 m into the air, in two stages. It was thus comparable in scale to the contemporary Ur-Nammu ziggurat at Ur. Miniature columns of Hissar type were found on the upper story of this building, together with pottery of the Tureng IIIC1 period. Comparable brick structures have been identified at Altyn Tepe (the High Terrace, 12 m high) and at Mundigak (Mondīgak) in Afghanistan (the Monument Massif of period V). Deshayes concluded that toward the end of the 3rd millennium central Asia and eastern Iran were part of a cultural community that was influenced by Mesopotamia. These terraced structures were certainly cult centers of the type mentioned in the legend “Enmerkar and the Lord of Aratta” (Jacobsen, 1987, pp. 275-319).

*Northwestern Iran*. Throughout the Bronze Age northwestern Iran, or Azarbaijan, constituted a separate cultural zone, more closely related to adjacent regions to the north and west than to the Iranian plateau. Although geographically a unit, this region often comprised two separate cultural provinces, northern and southern Azarbaijan, divided by Lake Urmia. For the Bronze Age the key site for northern Azarbaijan is Haftavan (Haftavān) Tepe (Burney, 1976; Edwards); important supplementary data have resulted from earlier excavations at Geoy (Gūy/Gök) Tepe (Burton-Brown, 1951), nearby Gijlar (Gejlār) Tepe (Pecorella and Salvini, 1987), and Yanik Tepe (Burney,

1961, 1962). Late in the 4th millennium people with a distinctive material culture including round houses and burnished dark pottery migrated into the area, apparently from the north; closely related material (the Early Transcaucasian, or Kur-Araxes, assemblage) has also been found in eastern Anatolia (Sagona, 1984). In Iranian Azarbaijan the earliest excavated settlement yielding this kind of material is at Geoy Tepe (K:1), cleared only in a deep sounding. Settlements dated to the 3rd millennium are better documented, for example, the Early Bronze Age I and II occupations at Yanik, Gijlar, and Geoy K:2-3 (Burney and Lang, pp. 59-66). In the 2nd millennium these sites were characterized by a very different ceramic assemblage consisting of monochrome- and polychrome-painted buff wares. At the same time Haftavan (period VIB) was experiencing its greatest prosperity. The town was built on a series of terraces, and there is some evidence of functional differentiation of space (Burney, 1974, 1975). Although there are a few parallels with sites in the southern part of the Urmia basin, these northern sites are most closely related to settlements in the Trans-Caucasus and Anatolia, continuing the pattern established at the beginning of the Bronze Age.

To the south of Lake Urmia only the Ošnū and Soldūz valleys have been well documented archeologically (Dyson, 1983, with references). Following a period of abandonment that appears to have lasted through most of the 4th millennium and well into the 3rd, this region was reoccupied by agricultural groups living in sizable towns like Hasanlu (Ḥasanlū) VII. The distinctive pottery is only distantly related to that of northern Mesopotamia and the central Zagros. In the 2nd millennium the presence at sites like Dinkha (Denḵā) Tepe IV and Hasanlu VI of ceramics typical of the Khabur (Ḵābūr) region in ancient Mesopotamia (modern north Syria) reflects strong economic or political ties with the west, particularly the kingdom of Shamsi-Adad (Kramer, p. 105). Northern Mesopotamia and Syria are easily accessible from the Ošnū valley through the Kelešīn pass, and these Iranian sites may have participated in the tin trade, which was dominated by Assyria in the early 2nd millennium. Massive mud-brick walls at Dinkha suggest an urban settlement, but the architecture and settlement layout of this period are not well known because of limited excavations.

*The end of the Bronze Age*. In the late 1960s, in the absence of regional surveys, careful excavations, and analytical studies of resources, technology and subsistence, the apparent abrupt decline of urban centers in the east, from southern Turkmenia to the Indus valley, was attributed to violent invasion

and mass migration. Current research suggests, however, that the decline of urban centers and long-distance trade was a more gradual process, beginning as early as 1850 B.C. and continuing for several centuries at varying rates in different regions (Tosi, 1986). Some areas remained unoccupied, for example, the vicinity of Tepe Sialk, whereas others, like the plain around Hissar, were now abandoned. Gorgān and southern Turkmenia remained inhabited but with greatly reduced populations. The area later known as the Bactrian plain, on the other hand, appears to have been resettled; there towns were replaced by scattered rural villages and administrative centers established along natural water courses or man-made canals (Biscione, 1977).

In the Helmand basin shifting hydrological conditions probably played a role in the abandonment of Shahr-i Sokhta and the immediately surrounding territory. The town appears to have been abandoned gradually, for in each succeeding occupation level more open space occurs until finally, in period IV, only one large building stood on the site. At the same time, however, about forty small nearby villages remained occupied, indicating a change in social and political organization, rather than a depopulation of the area (Tosi, 1980). Subsequently these villages also shifted, probably following the water supply. In southern Baluchistan there is also evidence of continuity of occupation (Jarrige, 1983). The introduction of new crops (rice and sorghum) and of double cropping were among major economic changes that took place late in the 2nd millennium B.C. (Costantini, 1981).

Reconstructions of the linguistic and historical geography of eastern Iran suggest that the area was occupied in the 3rd and 2nd millennia by proto-Indo--Aryan speakers (Burrow, 1973) and that Iranian-speaking groups began to move in between about 1400 B.C. and the early 1st millennium (Gnoli, 1980), three or four centuries after the beginning of the decline of the cities. It is relevant to this problem that horse bones and equestrian figurines have been found for the first time in late 2nd-millennium contexts in southern Baluchistan (Jarrige, 1983). Furthermore, sherds of Andronovo pottery, derived from southern Siberia and traditionally linked by scholars with Iranian tribes, appear for the first time in central Asia at the end of the Bronze Age (i.e., the end of the Namazga/Namāzgāh VI period), half a millennium after the onset of urban decline (Biscione, 1977; *L'Asie centrale*, 1988).

The transition from the Bronze Age to the Iron Age in western Iran is still extremely difficult to trace and has recently been discussed by Young (1985) and Levine (1988).

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Figure 29. Bronze Age sites in Iran and Afghanistan

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