THE PROTO-ELAMITE PERIOD
Susa and the highlands (ca. 3100–2900 BC)

The Proto-Elamite era is named for a newly emergent “Proto-Elamite” script—one of the world’s oldest largely undeciphered notation systems—and is characterized by a distinct cultural package attested primarily at Susa from ca. 3100 to 2900 BC.1 Predating the emergence of the Elamite state, the Proto-Elamite (or Susa III) period represents a pivotal chapter for the genesis and formation of a dual Elamite cultural identity defined by the interactions between populations of the highland regions and those of the lowlands. Perhaps as a direct consequence of the breakdown of the Uruk expansion, the material remains of this period testify to a cultural dynamism nourished by broad networks of relationships extending far beyond the urban lowland heart of Susiana in the west and the highland Kur River basin in the east.

A split between the numero-ideographic signs used in Iran and Mesopotamia occurred at the end of the Susa II/Uruk period and in a surprisingly indigenous way Susa’s scribes adapted and expanded on a shared sign repertoire related to the herding of animals to develop an entirely separate writing system.2 At present, the Proto-Elamite script is attested on only a relatively small corpus of about 1,760 tablets, of which 1,564 were found at Susa and the rest distributed across the Iranian plateau.3 Together with the script’s relatively short lifespan, the small sample of tablets makes the task of decipherment very difficult. In the early 20th century Vincent Scheil asserted that this writing system represented an archaic form of the later Elamite language (ca. 2300 BC),4 and subsequent debates drew out other possible links with numerical systems used in Susa II accounting and with the later so-called “linear” Elamite texts (ca. 2100 BC).

The sealing of the clay tablets introduces a rich additional source of evidence for the evaluation of these record-keeping practices. Like the script itself, the accompanying glyptic imagery developed independently from Mesopotamia and is unmatched in its originality, particularly in the depiction of animal forms. Together, text and image were adopted at numerous sites throughout the Iranian highlands and plateau, creating the impression of a broad cultural and economic web: a “Proto-Elamite civilization”.

Architecture

No drastic change in building strategies from the previous Susa II period can be observed in the evidence (albeit fragmentary) for the High Terrace at Susa, and its continued significance in the
Elam before Elam (ca. 4200–2900 bc)

city's communal life is attested by the erection of a new monumental structure decorated with cone-shaped nails, and architectural modifications in the northern sector. In addition to these communal structures, domestic architecture provides valuable evidence for the physical settings of Proto-Elamite social interaction.

**Monumental architecture**

In the northern sector of the High Terrace a massive wall was now built using the square-sectioned “riemchen” bricks characteristic of Uruk architecture [Pl. 26a]. Along its facade were sequence of 10 cm deep recesses set about 1 m apart. Above this wall on the same general orientation lay a sequence of floors, with deposits of homogeneous wares, two Proto-Elamite tablets, and decorative nails (see Pl. 26c). About 50 m south of the *riemchen* wall stood a single-roomed edifice of almost square plan (sides 3.9 m, 3.9 m, 3.75 m, 3.60 m; door 0.90 m wide) atop the High Terrace. Perhaps a food processing facility, it contained a 17 cm high platform against one wall, a grinding wheel, and a mortar.

**Domestic architecture**

Small areas of Proto-Elamite domestic architecture have been documented at Susa in the Acropole and Ville Royale. The households had been remodeled a number of times [Pl. 26b, c], and generally had 30–50 cm thick walls constructed of sundried bricks coated with a layer of plaster. The largest rectangular rooms accommodated a peculiar type of hearth with a double-decked structure that extended into a chimney inside the wall. The hearth in one Acropole household (Room 707; 5.30 m x 2.75 m) was 66 cm wide and 54 cm deep, and opened onto a 25 cm high rectangular platform [Pl. 26b]. This double-decked structure may have had a dual purpose, allowing coals to be swept aside and enabling greater control over the temperature. The construction of these hearths does not seem to have extended beyond Susa, and a similar type would later emerge in the second millennium BC as a feature of “reception halls” in large households of the Ville Royale.

While their structure may be unique, the specific positioning of these hearths within a large room—probably the social center of the household—compares with that observed in elite residences at Godin Tepe and Tal-e Malyan (see Building ABC, level III, below). The rooms in question have two doors, one at each end, and the hearth is placed along the wall, equidistant from the doors [Pl. 26d]. These analogies in household design can be explained in terms of a shared western Iranian tradition that designated particular spaces for specific sets of social practices and functions.

**Pottery**

Excavations in the southeast part of Susa below a second Achaemenid palace in an area known as the Donjon unveiled hundreds of Elamite burials, several of them reportedly associated with
Plate 26  Proto-Elamite architecture (ca. 3100–2900 BC)
Proto-Elamite tablets and pottery. Many of the variety of pottery forms and decorations were the same as those of the late Susa II/Uruk period, revealing an overlap with early Proto-Elamite material culture that corresponds with the above observations on the lack of a visible break in architecture. The representative open vessel forms are shallow trays; coarse, large-footed goblets, or chalices (also called pedestal vessels); and bell-shaped vessels with a green-white slip and the shoulder or belly painted with brown-red or white bands. The representative closed vessel forms are those already known from the Susa II period, such as the characteristic red-slipped globular jar with or without lugs [Pl. 24e]; the four-lugged jars, sometimes with an incised checker design on the shoulder [Pl. 24f]; and the elongated amphora-like jar with bent spout [Pl. 24c]. Cylindrical vessels of various sizes also occur with or without lugs, and with or without spouts.

Glyptic

Just as enigmatic as the Proto-Elamite script is the corpus of imagery found on seals and their impressions on clay tablets and tags. Bearing in mind that various authors have categorized the seals according to a range of different criteria, this presentation follows Amiet’s simple bipartite division of the corpus into a Burned Steatite “International” Piedmont group (also known as “Regional”, “Popular”, “Glazed Steatite”, or “Abstract”) and a “Classic” group. Both are characterized by the use of time-efficient devices such as drills and cutting wheels.

The burned steatite “international” Piedmont style

This group is named according to its method of manufacture. The seals were carved in steatite and then exposed to temperatures of 780–1100°C to increase the hardness of the stone and transform its color to white. They tend to be long and thin in shape and carry a few different designs, mainly stylized plants (leaves and flowers) [Pl. 27a], geometric patterns (arcades, striated bands, crosses) [Pl. 27b], or schematized animals. These seals (and sealings) are found in their largest numbers at Susa and are also concentrated along the Zagros piedmont areas of the Diyala Valley and the Hamrin Basin (northeast Iraq). In lesser numbers they are distributed as far west as the Syrian Jazira, and in towns to the east associated with Proto-Elamite tablets: Tepe Sialk, Tal-e Malyan, Tepe Yahya, Shahr-i Sokhta. They have also recently been found at Tepe Sofalin in northern Iran.

This distribution is best explained in terms of an administrative network with a complex, codified visual vocabulary that had probably originated at Susa. If correct, it is possible that this network had already existed in the late Uruk period and was rebranded by the Proto-Elamite administration to maintain trade links with local merchant communities along the Zagros piedmonts. Since neither Uruk, nor Susa, nor the Zagros piedmonts contain geological deposits of steatite (magnesium silicate) or its softer mineral cousin, chlorite, the material must have been sourced from the mountains in the south of Kerman and Oman. Besides the shared carving style and the manipulation of the steatite by exposure to heat, the sourcing of the material from a distant and relatively narrow area points to the concerted effort of a central organization to devise a signature type of seal.

The classic style

Made in a range of materials, “Classic style” seals were impressed on clay used to seal doors, jars, and baskets, and on approximately 12% of the attested Proto-Elamite tablets, mostly deriving
Plate 27  Proto-Elamite seals (ca. 3100–2900 BC)
Elam before Elam (ca. 4200–2900 bc)

from Susa. Usually the seal was rolled just once on one side of the tablet. The “Classic style” encompasses a rather wide range of imagery, reflecting a production involving numerous workshops and many hands. An especially intriguing leitmotif is the portrayal of animals walking upright on their rear legs and co-opting human gestures and activities. The principal characters are lions and lionesses, and to a lesser degree, bulls. Surprisingly, the long-horned ibex plays only a minor role in this remarkable iconography.

The almost total absence of human figures contrasts sharply with earlier glyptic traditions (a hero figure in Pl. 29e is exceptional). The compositions, which show a great sense of proportion, tend to follow horizontal sequences of animals along registers and well-balanced heraldic arrangements in which the figures never overlap. The carving generally focuses on linear, at times sinuous, outlines to isolate specific modeled body parts such as the haunches and shoulders, underlining robust proportions. Sometimes a reduction of scale indicates depth and separates different activities. Natural landscapes tend to be represented in schematic form, for example, a mountain topped by a tree, a single blossoming flower, or a leafy branch. The themes treated in the following sample of representative imagery are animals and hybrids, and animals impersonating humans.

**Animals and hybrids**

*Bulls and calves resting or grazing, and lion hunting* [Pl. 27c, 27d]. A reddish-pink marble cylinder seal [Pl. 27c] depicting a recumbent calf in the upper field turning its head to look back at a long-tailed, lolling-tongued lion preparing to pounce. In front of the calf is a “Maltese”-style cross that has been linked to a similarly shaped Proto-Elamite sign. Below, a pair of recumbent bulls face each other across a small trilobal plant or flower, extending one foreleg to touch hooves. Each has one long, curved horn shown in profile and a combination of deep grooves, hatchings and drilled dots marking various parts of the mane and joints. Another seal in bitumen mastic [Pl. 27d] shows a lion running in the upper field above a calf and a humped bull munching on plants. In contrast to the slimmer, non-humped bulls in the previous seal, this bull has a stocky body, frontally depicted horns, hairy chest, tufts of leg hair, and angular tail with long triangular tip.

*Ibexes and mountain-trees* [Pl. 27e-g]. Three seal images typified by a pair of male ibexes facing each other across a mountain, or mountains, topped by a tree (henceforth also “mountain-tree”). The first is on an unperforated seal carved in the soft stone heulandite (clinoptilolite) [Pl. 27e]. It depicts the ibexes with the front hooves resting on the lowest of four levels of mountains, which reduce in number at each level to terminate in a single mound capped by a conifer (cypress?). The conifer is composed of a single vertical line to mark the trunk and inverted heart-shaped foliage. Both animals have a pair of long, curved horns depicted in parallel, a wavy goatee beard, and a vertically segmented body. Additional motifs are a smaller mountain-tree and a four-lobed vegetal motif (a stemmed flower?) framed by two jumping ibexes with long, straight horns. Two “Maltese”-style crosses frame the mountain tree, under-scoring the harmonious balance of the scene; a third cross appears below one of the jumping ibexes. The second image is preserved on a fragmentary sealing with traces of finger or textile imprints [Pl. 27f] and depicts a heraldic scene of two rampant male ibexes with heads turned back and front hooves resting on either side of a mountain-tree. The best-preserved ibex has an elongated body, strong haunches, curly goatee, and long curly horns extending sideways. The pyramid-shaped coniferous tree has a single vertical line to mark the trunk, diagonal lines for the branches and a serrated foliage outline. The third image on another fragmentary sealing
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[Pl. 27g] depicts two rampant ibexes with the front hooves atop a mountain-tree. Floating in the space between each animal’s back and long, curved horns is a trilobal vegetal motif (as in Pl. 27c). Below the belly is an S-shaped motif. I

Ibex and tree [Pl. 27h]. Fragmentary tablet with a sealing depicting an ibex standing before a three-armed tree, possibly munching on its leaves. The ibex has extraordinarily long horns with curled tips, a long goatee beard, long curls descending from the upper legs, and a raised tail.

Hybrid animal [Pl. 27i]. Fragmentary tablet with a sealing depicting a griffin with the head, wings, and clawed feet of a bird of prey and the body and rear legs of a lion.

Recumbent bulls, mountain-tree, quadruped, and lion [Pl. 27j]. Fragmentary sealing preserving a recumbent bull with a long curl descending from the chin. One foreleg is extended toward a tree-capped mountain. On the opposite side of the mountain is a partly preserved second recumbent bull. In the field above, a quadruped with a raised tail is either resting or fleeing from a lion directly behind it.

Roaring lions (?) and tree [Pl. 29f]. Tablet with an eroded sealing depicting a heraldic pair of lions crouching on opposite sides of a tree with three long terminals. Their heads are turned backward, the forelegs extended, and the tails raised.

Animals impersonating humans

Bull mastering two lions and lion mastering two bulls [Pl. 28a]. An exceptionally large Proto-Elamite tablet with text along the upper and lower left edges of the reverse side. On this same side a cylinder seal was rolled twice continuously across the width of the tablet to create a pair of horizontal friezes composed of a sequence of two alternating heraldic formations: a triangular “lion mastering bulls” and a pentagonal “bull mastering lions”. Each frieze contains three complete triangles (bull-mastering-lions) and two pentagons (lion-mastering-bulls). At the center of the triangle, a bull stands on its hind legs pressing its front hooves down on the heads of two lions. It has a broad humped back that rises up behind a frontally depicted horned head, broad shoulders, thick chest, and muscular arms. The two lions sit on their haunches facing each other, curled tails raised. At the center of the pentagonal formation stands a lion with head turned in profile, curled tail raised, and forepaws holding two rampant bulls by the shoulders. In the upper part of the register, separating each group, is a triangle with a central fishbone element and fringe-like border of small projections. This “triangle hirsute” or “hairy triangle” finds a close counterpart in one of the Proto-Elamite signs in the upper section of the tablet where quantities are denoted (a numerical notation of the total?) and four signs possibly identify ownership (M288 at the beginning, and M136#, M377 repeated twice, and M297~b at the center). The scribe appears to have made an effort to place these four signs in the upper middle section of the tablet, perhaps a deliberate attempt to harmoniously marry text and image.

Lioness in Atlas pose [Pl. 28b, c]. Two tablets, each impressed with a different seal depicting a lioness standing in atlas pose, one leg in front of the other, raising a platform supporting three “mountains”, which alternate with trees with inverted heart-shaped foliage (compare tree in Pl. 27e–g). She has a frontally depicted chest, broad shoulders, wide-open arms, narrow waist, prominent muscular thighs, and a raised tail with a curled tip. In one seal [Pl 28b] the lioness is framed by two smaller-scale bulls standing in profile with their backs to her and front hooves joined at the chest. In the other [Pl. 28c] she is accompanied by a “hairy triangle + fish-bone” (seen also in Pl. 28a).
Plate 28  Proto-Elamite tablets and sealings (ca. 3100–2900 BC)
Striding roaring lioness [Pl. 28d]. Eroded sealing on a tablet. The seal (rolled twice) depicts a lioness striding with forepaws joined at the frontally depicted chest. She has broad shoulders and strong thighs like the atlas lionesses, and a wide-open roaring mouth. A novel feature is the replacement of the raised tail with two long, drooping extensions. Here the “mountains”, and perhaps a tree, appear in the field beside the lioness rather than raised on a platform.

Bull holding bundle, bull holding box [Pl. 28e]. Fragmentary tablet sealed twice with the same seal, creating two horizontal registers separated by an inscription. The rather eroded sealings (the upper one apparently burned) depict two kneeling animals facing each other. One, clearly a bull, raises the left arm behind the head and extends the right arm to hold out a bundle of three long sticks (arrows?) toward the other, who holds a rectangular object in the front hooves.

Animals in boats [Pl. 29a, 29b]. Two seals, each impressed on a different tablet, depicting animals kneeling in small boats. One depicts two boats, each carrying an animal shown in profile with a raised tail, possibly holding a paddle [Pl. 29a]. The other depicts a single boat carrying an animal with a pointy, bushy tail, a three-toed foot, round belly, small ears and the front “hands” touching (or clasped?) before the frontally depicted chest [Pl. 29b]. On either side of the animal are objects resembling paddles. The boat has a high, knobbed prow and stern and an internal frame. It is flanked by a pair of tall columns (bundles of reeds?) and a large fish swims below.

Bull and “bears” [Pl. 29c]. Fragmentary tablet with a sealing depicting four animals: a bull, two bears(?) standing face-to-face holding long, thin objects in the front paws and a third standing bear(?) oriented toward them holding a similar object.

Kneeling animals [Pl. 29d]. Fragmentary tablet with remains of a sealing depicting two animals with long ears and raised tails facing each other in a kneeling position. One holds an elongated object, the other a rectangular object.

Bull mastering lionesses and hero carrying bull [Pl. 29e]. Damaged tablet with an eroded sealing depicting two scenes: a “hero” carrying a bull over the shoulders and a bull holding two lionesses (or cubs?).

Lioness, donkey(?) and ibex [Pl. 29g]. Unperforated green schist seal depicting a row of three animals: a hairy ibex with long curly horns (compare ibex in Pl. 27h), followed by a donkey(?) walking upright holding a pair of sticks, and a lioness walking upright holding a small object in the right paw and a long stick in the left. A trefoil plant sprouts from the ground below the ibex’s mouth and another one floats above its back.

“Donkey” and ibex [Pl. 29h]. Limestone seal depicting a kneeling donkey(?) with a hairy back, possibly holding something in the left hoof. Behind it is a recumbent ibex with long, curved horns. Between the two animals are a plant and perhaps an eagle with open wings, and above the ibex are a small leaping animal and a “Maltese”-style cross (compare cross in Pl. 27c, e).

**Interpretations: When animals were human**

Simultaneously echoing and contrasting with earlier traditions, the idiosyncratic portrayal of animals co-opting human postures and behaviors in Proto-Elamite glyptic has provided a fertile ground for discussion. Leaving aside Legrain’s assertion that some scenes depict humans in animal disguise, the three prevailing interpretations see the imagery as didactic-humoristic, mythological-cosmological, or practical-emblematic (i.e. comprehensible only within the context of the administrative apparatus of the time).
Plate 29  Proto-Elamite tablets and sealings (ca. 3100–2900 BC)
**Didactic-humorous.** This leading interpretation originated from M. Rutten, who regarded the scenes as illustrations of ancient fables. Amiet later stressed their humorous flavor, concluding that the depiction of animals performing human activities was perhaps a source of amusement for Proto-Elamite scribes. He also saw in them a “kind of humanism” akin to the collection of animal fables associated with the ca. sixth century BC Greek narrator Aesop, some of which find precedents in Sumerian and Akkadian “contest literature” whose central characters such as the lion, wolf, dog, eagle, ox, and serpent compete before the gods to prove their usefulness to humankind. By placing the debates under direct divine scrutiny, this didactic-humorous text genre, which probably descended from an oral tradition, expressed a kind of universal logic. Even if we have no literary sources reaching back to the Proto-Elamite period it is possible that similar fables or “contest” scenes were represented in seals.

**Mythological-cosmological.** Several scholars conceive symbols of cosmic forces in some of the imagery. Amiet, for example, drew an analogy between the Greek Atlas figure condemned to hold up the sky in perpetuity and the “giant lionesses” symbolically bearing the weight of the mountains of the earth. In this sense, the lionesses symbolized world equilibrium and stability and, at the same time, the elementary forces inhabiting the world below. He also theorized that the human-impersonating animals were metaphors for cosmic forces and represent an essential, intermediary, conceptual step toward the anthropomorphizing of deities.

**Practical-emblematic.** Following on from the notion that some of the more abstract motifs could possess symbolic meaning and ideographic or logographic value, it has been proposed that the “hairy triangle + fish bone” [Pl. 28a, c] represents a social unity (a tribal confederation) with the sign enclosed by the triangle (the fish-bone) referring to a temple or palace institution, tribe or lineage. Along these lines, it has also been suggested that the animal iconography could mirror Proto-Elamite human social hierarchy, with the top level occupied by the lion/ness and bull, followed by the ibex and, at the base, the other animals including sheep, bears, and equids engaged in menial tasks.

The interpretations above are not mutually exclusive, rather, they highlight a range of meanings that could have been activated, singly or in combination, according to the audience, the location, and the contexts in which the seals were used. One striking aspect of the imagery worth underlining is its almost complete abandonment of humans, including the once-central character of the “priest-king”. Iconography was no longer concerned with mundane affairs like people laboring away at their quotidian tasks or heroic rulers defeating their enemies. Instead it sought to create new realities whose character and order transcended daily human existence, encapsulating an Elamite fondness for the extraordinary. Could this radical break with past glyptic reflect a unique Proto-Elamite culture and the decentralization of political and socio-economic power structures?

The originality of this high-quality carved imagery is undeniable and its legacy endured through the third millennium in both the Iranian plateau and in Mesopotamia. In the east, it materialized in the chlorite production associated with the Kerman region, while in the west—where it was perhaps recognized as “quintessentially Elamite”—it may have influenced the Early Dynastic II glyptic with fantastic human-animal creatures such as the bull-man and human-headed bulls.

**Sculpture**

Since the stratigraphy at Susa is unreliable for dating purposes, distinctions between Susa II and Proto-Elamite/Susa III sculpture have tended to rely on stylistic judgments and comparisons
Plate 30  Proto-Elamite period architecture and sculpture (ca. 3100–2900 BC)
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with material from Mesopotamia. Le Breton strived to define the attributes of the well-modeled sculpture of this period, observing that “small as they are, these local products are remarkable for their artistic quality (and occasionally for humorous intention).” As in glyptic, emphasis was placed on the depiction of animals with pronounced muscles and segmented bodies.

**Headless recumbent bovine** [Pl. 30c] (h. 3.4 cm, w. 2.5 cm). White marble recumbent bovine with a tenon at the neck for attachment of a now-missing head. The body is muscular and the left legs are decorated with the same large curls of hair seen in glyptic imagery [e.g. Pl. 27h]. The right side of the body is not as detailed; only the front leg with a long curl of hair is carefully demarcated. The tail has broken off.

**Bird** [Pl. 30d] (h. 7 cm, l. 10.5 cm). Bitumen bird in a crouching position with the head lowered. It has eye inlays of shell, long claws, a broken-off tail, and a shaft running vertically through the center of the body suggesting possible fixture to another object by means of a rod. This is one of the earliest known sculptures made of bitumen, a material that would soon become characteristic of Elamite sculptural production.

**Recumbent cow** [Pl. 30e] (h. 2.7 cm, l. 4 cm). Recumbent cow in green stone with a mortise behind the shoulder. This sculpture finds comparisons in a series of recumbent animals, mainly cows and goats, typical of the late Uruk and Jemdet-Nasr periods in Mesopotamia. Many of them were pierced with holes, which would have allowed them to be worn as amulets.

**Lion/ness?** [Pl. 30f] (h. 5.1 cm, l. 7.9 cm, w. 3.2 cm). White-grey marble animal with powerful, well-modeled muscles and a thick, humped neck. A mortise at each leg joint and a piercing at the base of the tail suggest that attachments made from different materials had once been present (Mecquenem suggested that this animal was originally mounted on wheels and later suspended).

**A view from the highlands: Anshan (Tal-e Malyan)**

In the Proto-Elamite (or Middle Banesh) period, the Marv-Dasht plain hosted one of the largest highland settlements, a city named Anshan (today Tal-e Malyan), which grew to a size of about 45 ha. Excavations directed by William M. Sumner in two different sectors of the city uncovered a massive rampart, residential and monumental public buildings (Operation ABC), and a workshop and administrative complex (Operation TUV) [Pl. 30]. The main reasons for the rise of Anshan as a large urban center at around 2900 BC are thought to have been the emergence of a complex state that oversaw settled agriculturalists, pastoralists, craft specialists, and administration, and the need to protect increasingly centralized resources. Analysis of the materials used for the manufacture of seals, clay tags, and Proto-Elamite tablets confirmed their local origin, suggesting that the technology and visual expressions characterizing the Proto-Elamite koine were well established within the local administration.

**Architecture**

**City wall** [Pl. 30]. The remains of a 5 km long city wall are still visible today from the air. Built in the later part of the period, this wall was conceived as a parallel sequence of three parapets raised with millions of mudbricks. The outer parapet was built on a stone foundation, while the innermost one was reinforced by a 5 m thick solid brick packing. The wall must have stood at least 2.5 m high and Sumner estimated that its construction would have required the
labor of some 1,000 individuals for around 140 days. He also observed that while it enclosed an area of 200 ha., the city could hardly have covered more than 60–80 ha. at this time, leaving 120–140 ha. within the wall unoccupied. He pondered whether this large, fortified, empty space was an area for gardens or flocks, a fortified refuge for villagers, a planned expansion of the city, or simply a monument to the power of the local ruler.

The ABC Operation. The ABC Operation uncovered four building levels (V-II) dating to the Proto-Elamite period, and the use of the structures by high status groups can be inferred from their dimensions, decorations and contents. The two earliest levels, V-IV, were residences. Sumner suggested that Room 64 in level IV may have been a stairwell leading to the roof or a second story. In level III, which continued beyond the 15 x 25 m excavation area, was an imposing, carefully planned elite residence decorated with brightly painted wall frescoes. Some rooms incorporated flat hearths and domed fireplaces, and preserved finely painted pottery decorated in relief, numerous fragments of storage jar sealings, and fragments of tablets. The building in level II above was equally large and had a room housing a m high painted storage jars with brick and plaster supports wedged around their bases. Amongst the small finds on the floor were numerous carved mother-of-pearl inlays and a cache of 110 shells in Room 11 (a total of 1,115 marine shells were found in the ABC buildings). Proto-Elamite tablets were found together with clay stoppers and with clay tags; two of the tablets were sealed indicating the storage of goods under some form of administration.

In building level III was a large, sundried mudbrick residential building consisting of at least 17 rooms and constructed on a regular rectangular plan. It was decorated with wall paintings and had white-plastered floors and red-plastered walls (except for rooms 220, 269, 270). The length of the roof beams required to span the width of the rooms ranged between 3.10 m and 4.80 m, except for Room 63, which was by far the largest at 10.70 m x 6.30 m. The well-preserved plastered walls and floor of this room indicate that it too was roofed. Some of the trees identified by carbonized wood in flotation samples from building—poplar, maple, elm, oak, pistachio, and almond—could have grown large enough to cover the shortest (east–west) span of the room. A large hearth in the west wall framed by double doors corresponds with the double-door with central hearth room pattern observed already at Susa. This wall is thicker than any other in the building, perhaps relating to roofing requirements or the addition of a second floor.

Fresco remains were preserved on standing walls in Room 268 and another 39 fragments were collected from the floor (see photographs in Pl. 31, bottom). Aside from stripes, three distinct polychrome motifs are represented: a step motif composed of thin stepped bands in various colors and patterns incorporating crosses, four-petaled rosettes or isolated petals, and triangles; swirl patterns consisting of rows of sloping “S” and reversed “S” shapes, some filled with a row of small black lines; and half-rosettes. These polychrome, geometric patterns recall both local and eastern pottery traditions, and perhaps also textile designs. The step patterns are seen at Malyan on fragments of a storage jar and a plaster-coated bowl with incised decoration painted with red and black, and similar stepped geometric designs are attested on pottery and glyptic as far east as Shahr-e Sokhta in Seistan, and as far northeast as Namazga and Altynt above. The frescoes were made by coating the mudbrick walls with several layers of tan to brown “plaster”, followed by a thin layer of white “plaster” to serve as a background for the various geometric patterns that were added using a palette of red, yellow, black, and grey pigments. Each layer was allowed to dry before the next was added. This process necessitated the production of large amounts of high-quality lime plaster. The burning of lime for plaster would have
Plate 31 Proto-Elamite Anshan, ABC building wall paintings (ca. 3100 BC)
been a seasonal (summer) activity requiring the mobilization of a considerable labor force. The pigments used for the paint have been identified as hematite, goethite, and probably organic carbon, producing red, yellow, and black coloration respectively.\textsuperscript{95}

**Glyptic and metalwork**

*Striding lion/ess sealing* [Pl. 29i] (h. 5.7 cm, w. 4.2 cm).\textsuperscript{96} Fragmentary sealing offering a close Anshanite counterpart for the theme of the striding lioness observed in Proto-Elamite glyptic at Susa [Pl. 28b–d]. The incomplete imagery shows three upright walking animals with hands joined at the chest. Each has a narrow waist, an ear projecting from the back of the head, and possibly a pointy face. Two of them are identified by Pittman as a bull and lion.\textsuperscript{97} In the upper part of the field are at least two animals, perhaps a slim-bodied couchant lion with forelegs extended and head turned backward, and a recumbent quadraped. This sealing was found in a room identified as a warehouse during the final Banesh occupation (Room 128) with clay stoppers for large jars, Proto-Elamite tablets, and other sealings.\textsuperscript{98} Six of the glyptic images show animals impersonating humans, similar to those from Susa, but there is no functional reason to believe that they came from outside of Anshan.\textsuperscript{99} This implies that the local administration was generating imagery shared by a broad economic and cultural network embracing lowland and highland territories.

*The gold foil leopard* [Pl. 30b] (h. 2.5 cm).\textsuperscript{100} Gold foil leopard found in a dump during the removal of the walls of level II in the ABC Operation. The animal is standing upright on its rear legs, one positioned slightly ahead of the other, with the left foreleg extended downward and the right, raised paw open. The head is turned back to face the long, raised tail, which curls at the end, terminating in a tuft. Spotted fur is indicated by incisions over the body. The sinuous and detailed treatment of the body finds parallels in animal imagery on the Proto-Elamite seals from Susa.

**Notes**

1 Some scholars extend the Proto-Elamite period to ca. 2700 BC to incorporate the ED I period in Mesopotamia. This Proto-Elamite 2 period is defined by materials excavated in the Acropole 1 levels 15A–14B, in the Ville Royale I levels 18–17, and contemporary with ED I in Mesopotamia (Dittmann 1986, 1987).
4 Scheil 1905: 59; Dahl 2002.
5 Steve and Gasche 1971: 12. The evidence does not support the view of Canal (1978: 50) that the High Terrace was abandoned for a second, and final, time at the end of the Susa II period.
6 Steve and Gasche 1971: 10–12, 33, 123–31; Plan 2, dark orange; Pls. 24, 25.
7 Corresponding with the Inanna XIV–XII levels at Nippur and Diyala Protoliterate C period (Khafajah Sin I-II) (Wilson 1986).
8 Steve and Gasche 1971: 10–12; trench locus 101–2.
9 Steve and Gasche 1971: 33, Plan 3; see also Dittmann 1986: 175, nt. 29.
10 Steve and Gasche 1971: 12; Pl. 25: 44, 45. Disk-shaped cavities like these in nails of the Susa IV period were filled with a white material (plaster?) (see Steve and Gasche 1971, Pls. 15.7–9).
11 Similar decoration appears in nails from the Akkadian and Ur II periods (Steve and Gasche 1971, Pls. 2.19, 8, 69.11, 74a).
13 Le Brun 1971, fig. 33:2, Pl. XIX:1; Carter 1980: 13.
Susa and the highlands (ca. 3100–2900 BC)

14 Le Brun 1971, Room 713 level 16; Pl. XIX.2. For additional examples in the Acropole see Steve and Gasche 1971: 23, 26, Pls. 49:2; and in the Ville Royale see Carter 1980:14, Pl. 19.2.
15 Gasche 1986: 86.
16 Desset 2014: 12.
17 Driessen 2014, xii.
18 Mecquenem 1943: 103. A lack of concern for accurately reporting the finds, however, makes the task of correlating them very difficult.
20 Le Brun 1971, figs. 60, 62, 63; Alizadeh 2014, figs. 44B, 1, 46H, 76D, 77A.
21 Steve and Gasche 1971, Pl. 24: 38–43; Amiet 1986a, Pl. 43: 4; Alizadeh 2014, fig. 44H.
22 Le Brun 1971, fig. 60, nos. 1, 2; Amiet 1986a, fig. 43: 6; Alizadeh 2014, fig. 45E–H.
23 Le Brun 1971, figs. 63:9, 62:1, 7, 5, 6, 8, 13.
24 Alizadeh 2014, fig. 46A, E, E.
25 Steve and Gasche 1971, Pl. 30, no. 29; Alizadeh 2014, fig. 38J, H, L.
26 Alizadeh 2014, fig. 78: G, I.
27 Main studies are Jéquier 1905; Delaport 1920; Legrain 1921; Amiet 1961, 1972; Pittman 1994a.
30 Hessari 2011, fig. 17:4.
33 Sax and Middleton 1989.
34 Pittman 2006: 29.
35 ML, Sb 6166; h. 4.1 cm, dm. 2.6 cm. Amiet 1961, Pl. 33, no. 530; 1972, no. 999; Pittman in RCS: 71, fig. 40.
36 ML, Sb 1484; h. 3.2 cm, dm. 1.6 cm. Amiet 1961, Pl. 33, no. 527; 1972, no. 1000; Pittman in RCS: 72, fig. 42.
37 In this period a zebu is less likely (Potts 1997: 257–8).
38 ML, Sb 2675; h. 3.3 cm, dm. 2.4 cm. Delaporte 1920, S254, Pl. 24.8; Legrain 1921, fig. 316; Amiet 1961, Pl. 34, no. 537; 1972: 131; and Pittman in RCS: 74, no. 45.
39 A similar fourth cross may be present in the seal (but is not visible in the sealing).
40 Jéquier 1905: 19, fig. 43; Delaporte 1920, S263, Pl. 39.12; Legrain 1921, fig. 317; Amiet 1961, Pl. 38bis.
41 NMI, 759. Amiet 1972, no. 978.
42 Proto-Elamite tablet measuring h. 4.5 cm, l. 6.4 cm. Pittman in RCS: 74, fig. 40.
43 Housed at the NMI. Jéquier 1905: 20, fig. 44; Delaporte 1920, S366, Pl. 44.10; Legrain 1921, fig. 272; Amiet 1961, Pl. 35, no. 543; 1972, no. 543.
44 Legrain 1921, fig. 97; Amiet 1961, Pl. 38bis G.
45 Jéquier 1905: 8, fig. 14; Delaporte 1920, S314, S315; Legrain 1921, fig. 182; Amiet 1961, Pl. 35, no. 540.
46 ML, Sb 2801. Sealing: h. 4.2 cm; tablet: h. 21 cm, l. 26.7 cm. Scheil 1905, tablet 5242, Pls. 23–4; Jéquier 1905: 14, fig. 32; Delaporte 1920, S335, Pl. 43.8; Legrain 1921, fig. 330; Amiet 1961, no. 585; Pittman in RCS: 75, fig. 47.
47 Amiet 1997a: 19; Pittman 1994a: 252. Scheil (1905: 93; sign 382 tablet 5242) and Delaport (1920: 46) saw a one-to-one correspondence between both signs. J. Dahl’s (2005) recent compilation of Proto-Elamite signs includes the “hairy triangle” with various internal “modifiers” (sign M136, http://cdli.ox.ac.uk/wiki/doku.php?id=proto- elamite#tools_for_the_study_of_proto- elamite). Of these, seven split the triangle in half but none includes the fish-bone pattern.
48 [Pl. 28b] ML, Sb 4842; [Pl. 28c] ML, Sb 06378; Delaporte 1920: 46, S320, Pl. 42.5; Legrain 1921, figs. 266, 267; Amiet 1961, nos. 577, 578; 1965: 102, no. 57; 1972, no. 1012.
49 Jéquier 1905: 9, fig. 17; Delaporte 1920, S321, Pl. 43.9; Legrain 1921, fig. 336; Amiet 1972, Pl. 37, no. 588.
Elam before Elam (ca. 4200–2900 BC)

50 Jéquier and Delaporte interpreted these as terminals of a belt.

51 Within this series of depictions of lionesses, one in which the lioness holds a bow and is about to unleash an arrow in the direction of a kneeling bull is an anomaly. To my knowledge no photograph of this sealing exists and the seal has been lost (Legrain 1928: 244; line drawing made by Meccuem and published by Amiet 1972, Pl. 25, no. 1014). Le Brun (1971: fig. 59:7) published an odd line drawing of a sealing from a fragmentary tablet he excavated in level 15 depicting what he described as a single lion holding a bow and arrow and carrying a quiver. I have been unable to find a photograph of this object.

52 Jéquier 1905: 12, fig. 23; Delaporte 1920, S309, Pl. 41.12; Amiet 1961, Pl. 37, no. 570.

53 Jéquier proposed that the sticks were arrows.

54 ML, Sb 4832 and Sb 6385, 6383, 6387. [29a] Jéquier 1905: 15, fig. 22; Delaporte 1920, Pl. 40.15, S351; Legrain 1921, fig. 333; [29b] Jéquier 1905: 22, fig. 52; Delaporte 1920, Pl. 40.16; S293, Legrain 1921, fig. 334. Amiet 1961, Pl. 38, nos. 588, 589; 1972, no. 1013; Pittman in RCS: 77.

55 Jéquier identified the animals as a lion and a bull, noting a pair of small curved horns, while Delaporte saw two felines. In fact, both animals appear to have hooves.

56 For boats in the Uruk-Jemdet-Nasr period see R. A. Carter (2012).

57 ML, Sb 6412. Legrain 1921, fig. 268; Amiet 1961, Pl. 38, no. 583; 1972, no. 1011.

58 Delaporte 1920, S294, Pl. 41.10; Amiet 1961, Pl. 36, no. 564.


60 NMI 117; h. 4 cm, dm. 2.9 cm. Amiet 1966, no. 58; 1972, no. 1008.

61 NMI 112; h. 3.7 cm, dm. 1.8 cm. Amiet 1972, no. 1001.


63 Rutten 1938: 117.

64 Amiet 1972: 132.

65 Amiet 1988: 56.

66 See, for example, W. Lambert 1996: 150ff; Vogelzang and Vantiphout 1996.


69 Amiet 1986a: 100.

70 Amiet 1997a: 19.

71 Pittman in RCS: 75; 1994a: 253, 258; Dahl 2015.


74 Pittman 1997: 139.

75 Amiet 1956: 125; Collon 1987: 23.

76 This discussion will not incorporate unprovenanced examples of Proto-Elamite 3D sculpture; their inclusion in the historical record is problematic at multiple levels. Suffice to mention that contrary to the statement made by E. Porada (1950: 224) who considered that the seal-cutters of this period appear to have copied their figures from 3D sculptural models, H. Pittman (2006: 31) has suggested just the opposite; namely, that the form of the 3D unprovenanced sculptures acting as humans “are based closely on the 2D arts of glyptic where animals are seen in strict profile rendering”. For an example of the complexities involved, see discussion of the celebrated 8.26 cm high “Guennoll lioness”—sold by Sotheby’s in 2007 for $57,161,000 USD—by Giovanni Garbini (1973: 369, 372):

In reality, the Brooklyn statuette is only a clever modern falsification, made by a person undoubtedly endowed with artistic ability. It is precisely the formal qualities that have brought her so much praise that denounce her as unauthentic. […] In conclusion, we can say with some confidence that the Brooklyn lioness is the work of an artist probably active in the United States of America in the first half of this century; an individual of considerable archaeological knowledge in the sector of the ancient Near East, one thing this artist did not know: the difference between bas-relief and sculpture in the round in the figurative conventions of the ancient Near East; but they were not the only ones to ignore it.


78 ML, Sb 110. Meccuem 1911: 52; Amiet 1966: 109, no. 64.


80 ML, Sb 4853. Le Breton 1957, fig. 31: 1; Behm-Blancke 1979, fig. 134, Taf. 23: 124a–b.
Another group of recumbent animals could possibly be dated to this period (Behm-Blancke 1979; Le Breton 1957, figs. 31:1–4).


Much like an 8.3 cm high limestone bull from Uruk with silver legs (Behm-Blancke 1979, fig. 107, Taf. 9: 50a–b).

Zeder 1991: 68.

The city wall is contemporary with Susa Acropole 14a–b, and Ville Royale 17.


Sumner 1985: 159.


Miller 1982, Table CI. Sumner (2003: 31) estimates the dimensions of room 63 would have been 10.70 m x 7 m.

Nickeson 1977; Sumner 2003: 27–9, Pls. 8–9, 11–12, figs 14–19, Table 9; Álvarez-Mon 2005b: 152, nts. 8–10.

Sumner 2003: 49, Pl. 18d, e, and mf 189, fig. 41e, Pl. 21d.

Shaffer 1992, fig. 3.29; Masson 1988, Pls. IV, XXV; 1992: 223, fig. 2. See also: Cortesi, Tosi, Lazzari, and Vidale 2008; Thornton 2012: 598–9. For the wall paintings at Yassu Depe in Turkmenistan see Hiebert et al. 2003: 20; fig. 2.10 (dated ca. 4000–3500 BC).


ABC Operation Level II. Sumner 1974, Pl. IIIa (photograph of clay sealing M623, fig. 12r and line drawing reconstruction from Sumner 2003, fig. 44g; discussed by Pittman 2003: 107–8).


Sumner 1974: 164.


Sumner 2003: 78, drawing 43.