

5. A New look at Spike Butted AXE/ ADZ-AXES in Iran

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Abstract:

Spike butted axes which are attributed for the spike like projections at the back of their shaft tubes entered Iran via central Zagros region from western origins and Elamite culture as well. Based on available evidences these axes, apparently, evolved from relatively simple practical examples to highly stylized decorative or ceremonial axes. According to inscribed and limited stratified examples this process started since late 13th century B.C., and reached its extreme level in 700 B.C. (Iron Age III), during which various examples in different forms have been produced in Iran. Distinct form of their blades and shaft tubes along with their spikes demonstrate five major variant types among them. This topological study indicates that although their main manufacturing center in Iran was Luristan and Elam at their very first appearance in the Iranian plateau, in following years each type and form seem to be a distinct regional and even chronological evolutionary form of spike butted axes of simple practical examples to their highly decorated ceremonial variants. Each region in the Western half of the Iranian plateau has its own specific variant form and decoration during different periods.

Keywords: *spike butted axe; morphological changes; region; chronology; evolution; western Iran.*

A New look at Spike Butted AXE/ ADZ-AXES in Iran

1. Introduction:

Spike butted axes, attributed for the long or short spike-like projections at the back of their shaft holes, are the main characteristic of Iron Age arms in western Iran. These axes- mainly cast in bronze- have three to nine spikes which might be featured with some animal figures or proteomes. The decorative elements reflect a range of naturalized to highly stylized motifs. Some of these spikes have been designed for specific usages while there are some with a purely decorative purpose. Blades in these axes may contain curves emerging from a predator's jaw, and usually a lion placed at the junction with a socket and rarely are in crescent and bowstring forms. The cutting edges in these weapons are curved, oblique, or have been set at a right angle to the shaft hole. The blades are either simple or decorated with various elements using casting and repousse techniques. These elements include in the shape of animals added on the top rim of the blades, geometric patterns on the both rims and even human figures on the blades. The blades are joined to shaft holes with circular or elliptical thick or thin eyes. The body of these shafts is either simple or ribbed tubes.

Axes with these peculiar forms and highly elaborated decorations have attracted dealers and scholars' attention all over the world. With such interests, they are now displayed regularly in museums, private collections and dealers' shops. Although scholarly and commercial attention has resulted in that they are addressed in different publications and different museum catalogues and archaeological reports (Ashmolen Museum, Moorey, 1971 pp. 49- 55; Amiet, 1976 , pp. 36- 39; Calmeyer, 1969,pp. 66- 70; Muscarella, 1988, pp. 189- 191; Potratz, 1988, figs. 10- 24; Negahban, 1995, p. 28; Overlaet, 2003, pp. 166- 172; Haerincq, Jaffar- Mohammadi, and Overlaet, 2004, pp. 125- 135; Overlaet, 2005, Pl.4. 1, Pl.6. 12) the varieties of their forms and decorations can be the subject of further and deeper studies. In addition, few artefacts of the kind have been recovered from controlled excavations together with the inscribed ones are representative of their vast geographical distribution and long time span which indicated the need for further studies.

This research is aimed to explore whether there is a correlation between these axes morphological changes and their geographical and chronological distributions in Iran. In particular, this theory that each region in Iran, especially during Iron Age I-II, has had its own morphological variant is going to be examined. To do this, all these axes were initially divided into 5 major groups and 5 sub-types according to their morphological features which included blade shape, shaft-hole tube and

decoration. Using these five features, samples were categorized to each type and sub-types, for which stratified and inscribed specimens were first introduced and then the purchased ones. As there are only a very limited number of stratified samples more reliable data specimen are needed in order for a better understanding and interpretation of this research questions.

2. Spike butted axes classification:

Spike butted axes, according their blade shapes, form 5 major typological groups in Iran. **a) Spike butted axes with “slight splayed blade”, b) spike butted axes with “curved splayed blades” are in the majority, c) spike butted axes with “crescent blade”, d) spike butted “axes/adz- axes”, and e) spike butted axes with “bowstring shape blade”.** All of these groups could be divided into subtypes according their form characteristics (Fig. 1).

2.1 *Spike butted axes with slight splayed blades*

The most significant characteristic of these axes is their slightly splayed flat blades with convex cutting edges attached at right angle to the socket. The shaft is a long tube, sometime, with a collar extending down the shaft hole. The short blunt spikes on these axes are strong enough to have functional purposes. No stratified example of these axes have been reported yet, but it's ascertained that the early examples of these axes in Iran start with the unstratified Nihavand specimen with a collar shaft and three spikes, and in Susa as well (Maxwell- Hyslop, 1949, pp.105- 106).

Fig. 2 ,B). One of these axes have been found during Ghirshman excavations at ChogaZanbil (Ghirshman, 1968, p.250). This type with its four spikes and the flat blade with right angle to the shaft is comparable to Susa and Luristan next examples.

The British Museum axe, with seven spikes and a collar, seems to be the earlier examples of the Luristan axes (Fig. 2, A) of this kind (Maxwell- Hyslop 1949, Pl. XXXV. 17^A). The later Luristan axes seem to have longer and decorative spikes. The paralleled example of these axes, attributed to Luristan belongs to David- Weill collection in Paris (Maxwell- Hyslop, 1949, Pl. XXXV. 17^A). The Reza Abbasi Museum axe head also places in this group, this axe belonging to Luristan Iron Age, has nine blunt spikes, and a convex cutting edge (Tala'I 2008, 66, fig.9. Upper left).

2.2. Spike butted axes with curved splayed blades

These axes are the most characteristic canonical bronzes among western Iran and mainly Luristan axe heads. This type is distinguished by slight/wide curved splayed blades with flanged edges and the spiked ribbed shaft holes cast in bronze. Their blades sometime emerge from a predator's jaw usually a lion. The blades in these axes have various decorating elements in both casting and repoussé techniques, in the form of animals laying or mounting on the upper edges, or the curious figures shooting an arrow and/ or geometric or floral patterns engraved on both rims of sides of the blade and on it as well. The axes in this type could be classified to various sub-types based on their spike's shape (Fig. 1) -which could be either simple or long blunt/pointed thin tubular projecting or animal/ floral figured spikes- on the back side of their shaft holes. These spikes, running to the junction with the blade make the shaft tubes ribbed. The two or more shafts on ribs, in many cases coming together on the blade, form an arrow and the rest, joined in the lower part of the blade, making the blade highly curved. There are some strays with dedicatory inscriptions among these axes.

2.2.1 Sub-Type A: Spike butted axes with curved splayed blades and short- blunt spikes

The main characteristics of these axe heads is their short blunt spikes. The blades in these axe-heads, in many cases, are slightly splayed flaring in both sides and with convex cutting edges. The forms in many cases are similar except the form of spikes, which could be studied in 2 sub-groups: a) Types with simple blunt spikes, and b) Types with animal and rarely floral figured spikes. The axes in this group are from or attributed to western Iran -Luristan.

2.2.1.1 Sub-Type A-1: with short simple blunt spikes

The main characteristics in these axes are their simple short blunt and rarely pointed spikes at the back of their ribbed shaft tubes. The flaring blades in both rims are mainly plain but in some rare cases are highly decorated with animal or human figures on the blades or some time with incised geometric or floral patterns. There are only 2 specimens recovered during archaeological excavations and others are from clandestine excavations or purchased in antiquity markets.

The first spike axe which could be considered as one of earliest examples in Iran is the axe head with 4 short blunt spikes at the back of its ribbed circular shaft tube. This axe head was recovered by Ghirshman from Kiririša temple in ChogaZanbil. It has been an indistinct figure decorating its blade (Ghirshman, 1968, pp.100, 250, Pl. LIII.4, LXXXIII.). The next axe which was recovered during archaeological excavations from Bard-iBal in Pusht-iKuh, Luristan is a simple axe head with 4 short pointed spikes at the back of its ribbed shaft tube. The curved splayed blade is plain with convex

cutting edge. This axe could not be dated precisely because of multiple re-use of tombs during various periods of Iron Age (Overlaet, 2003, pp. 166- 167, fig. 134, BB.2-6).

The next two axe heads which are totally different from previous examples are the axe heads from Zalu Ab in Kurdistan, the northern part of Iran where these axes were recovered during a commercial excavation in 1932 (Overlaet, 2003: 168, fig. 135. 6) and now are in Tehran National museum's possession. It has four short blunt spikes and one bird figured –probably a parrot- spike looking left at the back of its shaft tube. The slightly splayed blade with blunt cutting edge is decorated by a human figure on one side. The bearded man rendered enface is keeping a big fish within his naked arms. The iconographical features of the man, the body and face, and his head in profile, with big eyes, prominent hooked nose, long tidy bearded face all are characteristic of Luristan iconography. Orientation of these decorations on the axe head, the head under the shaft tube, in a manner that the axe had to be placed downwards (Overlaet, 2003: 168, fig. 135. 6) and the bird sitting on the shaft tube, are unique characteristics which have not been seen among the comparable axe heads from Luristan. The other example, said to have been recovered from the same region has four simple short spikes. The most important feature in this axe head is the characteristic ribs on its shaft tube which has been replaced by a human face joining the shaft to the blade (Overlaet, 2003: 169, fig. 135. 5). The man, rendered enface, with long tidy beard, big eyes and nose is remembering axes with crescent shaped blades which are joined to the shaft tubes with comparable bearded man rendered enface and some time with an enface lion head. The same orientation can be seen in this axe head too, this has been determined as a “*local manner of wearing the axe or of fixing it on, for example, belts or horse gear,*(Overlaet, 2003, p.168) ”.

Among these axes there are some inscribed examples too, the first one bearing an Akkadian inscription by the name of Elamite king Šilhak- Inšušinak 1150- 1120 B.C. (Ghirshman, 1960, p.210, Pl. XXVII. b; Dossin, 1962, p.157, PL. XXIII. 13; Amiet, 1976, pp.28- 29, fig. 25; Potratz, 1986, Pl. II. Abb. 8. Overlaet, 2003, p. 168, fig. 135. 7). This axe has four spikes and an inscription under the flaring upper edge and now is in Foroughi collection possession, this axe head has been recovered in a tomb in Luristan which was included in the characteristic object of Luristan. The next Elamite king, dedicating similar axes is Untaš- Gal (Ghirshman, 1953, p. 227, Pl. LXXXIII.9).

The next two examples, with three short spikes, and the characteristic arrow figure on their blade point to the Babylonian inscriptions by the name of Babylonian King Nebukednassar I 1125- 1104 B.C. in honor of Marduk (Dossin, 1962, p. 158, Pl. XXIV. 14; Calmeyer, 1969, Pl. 4; Amiet, 1976, pp. 28- 29, fig. 25; Overlaet, 2003, p.168, fig. 135). The next with the same form but different in some decorating elements in the lotus pattern rendered at the end of the ribs running on the blade instead of the arrow, followed by an Elamite inscription which is also in the name of Nebukedzassar I 1125-

1104 B.C. is engraved on the blade (Dossin, 1962, p. 158, Pl. XXIV. 14; Calmeyer, 1969, Pl. 4; Amiet, 1976, pp. 28- 29, fig. 26; Overlaet, 2003, p. 168, fig. 135).

Along with these examples from archaeological excavations and the inscribed axe heads, there are some strays in museums and private collections coming from dealers shop. Three comparable axe heads, each with four blunt spikes, and plain blades with flaring upper and lower edges and with ribbed shaft tubes are the unprovenanced examples now in Ashmolean Museum, the cutting edges in these examples are straight with no convexity. Moorey attributes these axes to Luristan (Fig. 3, A-C). These axes are mainly plain with only one having geometric patterns on its both flaring edges. The next axe head with geometric incised pattern on its blade is attributed to Luristan; this example has four short blunt spikes and some geometric patterns are decorating its blade and the flaring sides (Schaeffer, 1948, fig. 265. 6) The next comparable axe head attributed to Luristan early examples is an axe head with plain flaring blade and ribbed shaft tube (Maxwell- Hyslop, 1946, pp. 110- 111, Pl. XXXVI. 10) (Fig. 3, C). The next parallel examples to this type with plain flaring blades and four short blunt spikes are now History Museum in Geneva and one in München Museum and another in private possession are completely comparable to Ashmolean prototypes both attributed to Luristan (Potratz, 1968, TF. I. Abb. 4, 5, 7, TF. II. 9, TF. III.12,13). Other examples attributed to Luristan are now in München Museum possession which is completely comparable to the previous ones; estimated date for this specimen is around 1200- 1000 B.C. (Zahlhaas, 2002, kat. 58- 60). Among axes of this type there is a miniature attributed to Surkh-i Dum in Luristan measuring 7.3 cm. Muscarella considers this axe as a votive to the sanctuaries (Muscarella,1988b, fig. 214).

2.2.1.2 Sub-Type A-2: with animal/floral featured spikes

The spikes in some cases terminate in animal’s head, featuring boars, dogs, birds and unidentified animals or even palmette leaves. The plain and in many cases flaring blades are either simply joined to the shaft tube or emerging of an animal’s mouth with a usually convex cutting edge. Among these axes there are rare examples from controlled excavations. The prominent one from excavation is the axe head from Kutal-iGulgul in Pusht-iKuhLuristan in tomb of Iron Age IB of IIA (Overlaet, 2003, p. 166, fig. 134. lower middle; Haerinck, Jaffar-Mohammadi, and Overlaet, 2004, p. 125; Overlaet, 2005, Pl. 6. 12.) (Fig. 4, A) the spikes in this axe head are featuring unidentified animals with leaf shaped ears. The plain flaring blade is emerging of a predators jaw set on the opposite side of the ribbed shaft tube.

The Reza Abbasi Museum example is parallel to this specimen, the spikes in this axe feature four dogs and the blade springs of a lion’s mouth (Talai’I, 2008, p. 65, lower left). Other comparable examples to this axe is the British Museum axe with four unidentified animal tipped spikes. The blade of these, like the previous example emerges from a mouth of a lion-like predator (a lion?) (Curtis, 1990: 30,



fig. 32). The next axe head completely comparable to that of the British Museum's is the axe in History Museum of Geneva (Potratz, 1968, TF. V, Abb. 26). The David Weil Museum axe with four dog-like spikes and the plain splayed blade is the next axe in this group (Godard, 1931, Pl. 18. 56; Schaeffer, 1948, fig. 266.3). But the last and rarest of the axes in this group is the bird tipped spiked axe head. Its blade, in contrast to the others in this group, does not emerge of a predators jaw. Instead it is simply joined to the shaft tube (Potratz 1968, TF. V, Abb. 24) (Fig. 4, B). Other variants in this sub-type are the axe heads with leaf shaped spikes at the back of their shaft tubes. No example of this type has been reported during controlled excavations until now, with all these peculiar decorations they seem to have more ceremonious or decorative rather than practical functions.

The first example studied here is the Pennsylvania Museum axe head (Gadd, 1931b, p. 80, Pl. XXIX. A). The leaf shaped spikes in this axe are emerging between two opposed bird featured figures (probably parrots). The solid high splayed blade has a wide cutting edge. The British Museum axe head is a paralleled example to this but with five pelmet leaves shape spikes while its blade emerging of a lion's jaw (Gadd, 1931b, p. 80, Pl. XXIX. A). Another comparable axe head to the previous ones is in Tehran National Museum attributed to Luristan. This bronze axe head has five leaf shaped spikes which are emerging between two opposed bird featured figures with chased details. The baled like previous examples is solid flat (Moshtagh, 2006, cat. 346).

2.2.2 Sub-Type B: Spike butted axe with curved splayed blade and long spikes

Spike butted axes in this group are distinguished by their long pointed, in some cases comb like, spikes. The blades in these axes are more strongly curved with straight cutting edges which seem not to be functional, the junctions of the blade and the shafts are so narrow in these examples, and the blades are either solid or flanged in both sides and the main decorative characteristic of their blades is the so-called arrow shaped figure pointing to the cutting edges. The blades in these examples like previous groups are either joined simply to the ribbed shaft tubes or emerging of a predators jaw. The axes in this group are more decorative than previous groups, like animal figures mounting or lying on the upper rim of the blades or in some cases on the upper and lower spikes. Various examples dispersed in different museums are mainly purchased in antiquity markets and there are only 3 axe heads of this type recovered during archaeological excavations.

The first stratified example and a fragmentary are from Bard-iBal in Pusht-iKuh in Luristan (Vanden Bergh, 1968, pp. 124, 167, Pl. 27.a; Zahlhaas, 2002, p. 41, kat. 64; Overlaet, 2003, p. 166, fig. 134. BB. 68-11) this axe head is a typical object of this kind, with a ribbed shaft tube, long spikes and the arrow figure on the blade, a parallel example to this was recovered during excavations in Kutal-iGulgul in the same region in Luristan (Overlaet, 2003, p. 166, fig. 134, KT. B3- 40). The next

comparable example was recovered from Khatunban B, Iron Age II tomb in Pish-iKuh (Haerinck, Jaffar-Mohammadi, and Overlaet. 2004, p. 125, Pl. 12-13) all its characteristic are the same as the two previous from Posht-iKuh.

Along with these examples there are unstratified examples scattered in various museums and private collections in the world. One of them is the Khorram Abad Museum axe head with five long comb-like spikes and a highly curved blade with a straight cutting edge. On its blade there is a stylized arrow figure made of joining three ribs, these features may indicated the decorative function of that axe head rather than its practical use. C). Ashmolean Museum axe heads with four rather long and blunt spikes at the back of their shaft tubes, and in one case with the arrow figure on its blade (Moorey, 1971b, pp. - 53, figs. 17- 19; Potratz, 1968, TF. III. Abb. 14), (Fig. 5) are the next examples. Other parallels scattered in various museums and collections all over the world, two from the Museum of Archaeology and Ethnology at Cambridge (Maxwell- Hyslop, 1946, pp. 110- 111, Pl. XXXVI. 10, 11) (Fig. 5, D, E) and some are in private collections in Germany, with the same characteristics on them (Potratz, 1968, TF. III, Abbs. 15, 16, 17: TF. IV, Abbs. 18, 19). In another example attributed to Luristan with the same characteristics the only difference is a human figure shooting an arrow on the blade instead of the typical arrow (Schaeffer, 1948, p. 488, Fig. 266. 4).

There are other variants among these axe heads with completely parallel characteristics but with the animal figures mounting or lying, on the upper edges of their blades. Khorram Abad museum axe head with four long pierced spikes is an example of them, on upper edge of its highly curved blade there is a stylized animal figure (probably a lion) lying on the upper rim. These decorations along with the narrowness of the blade and shaft tube junction make it somehow impossible to use. Comparable to this is Reza Abbasi Museum axe head in Tehran. The only difference is the running figure shooting an arrow on its blade instead of the just arrow figures (Talai'i, 2008, p. 67, fig.9 lower right). Two other examples, attributed to Luristan both have animal figures lying on their upper edges. One of them is about 19.5 cm and the other about 19.8 cm. (Zahlhass, 2002, p. 40, kats. 62, 63). The other with an unidentified lying animal figure is now in München collection possession (Potratz, 1968, TF. IV, Abb. 21).

In other variants the blades are emerging of a predators jaw (probably a lion), in these axe heads the juncture of the blade and shaft tube is very narrow and the blades are highly curved that makes it really impossible to use. The arrow figure on the blades is also emerging of predators jaw. In some cases there is an animal figure on the upper edge of the blade lying or mounting to the predator. Boston Museum of fine art axe head is the simplest of them. This example has four long spikes at its back and the arrow figure on the blade (Potratz, 1968: TF. IV, Abb. 20). Other example, now in Paris, has four spikes and an animal head joining the ribbed shaft tube to the blade (Pope, 1941, Pl. XIX. 59;

Schaeffer, 1948, p. 488, Fig. 266.2; Potrat, 1968, TF. IV, Abb. 22). There is a lion figure with big round eyes mounting on the upper edge of the blade to the animal head. This axe, along with 3 others, is dated by Schaeffer to 1550- 1350 B.C. (Schaeffer, 1948, p. 488) (To the early late Luristan (Luristan Recent) (ca. 1500- 1350 B.C.) to the late period of Luristan (1350- 1200 B.C.). The last example of axe-heads in this group is the University Museum of Pennsylvania in Philadelphia axe head (Potratz, 1968, TF. IV, Abb. 23) (Fig. 5, F). This axe head is comparable to the previous ones in its spikes, the blade emerging of an animal jaw and the stylized animal figure lying on the upper edge but more over this, there are two animal figures sitting on the opposed sides of spikes.

2.2.3 Sub-Type C: spike butted axe with curved splayed blade and fan like shaped spikes

In the next variant of this type, the long pierced spikes instead of being parallel are taking fan like shape. In these axes the upper edge of the blade is in a line to the upper eye of the shaft hole, and extends straight forward. The cutting edge in these variants is straight forming a sharp angle with the blade edge giving a triangular shape to it. Moorey considers this type of axes as decorative examples (Moorey, 1971b, p. 53). Among this type also there are decorated examples with animal figures or geometric designs.

The only two axe heads of this kind from controlled excavations are from Surkh-i Dum in Pish-i Kuh Luristan. The overall shape and form in many cases are the same as other unprovenanced examples but in this examples the blade is emerging of an unidentified animal jaw with big round eyes, and more surprisingly unlike all axe heads is doesn't have shaft hole (Schmidt, Van Loon & Curvers, 1989, Pl. 176. A) the other with more smaller size (about 7.1 cm.) has a very narrow shaft hole (Schmidt, Van Loon & Curvers, 1989, Pl. 176. B). This narrow shaft hole along with its blunt cutting edge makes it improbable to use. These two axe heads recovered from a sanctuary in Surkh-i Dum (Schmidt, Van Loon & Curvers, 1989, pp. 255- 256) according Overlaet, were probably ex-votoes to that sanctuary (Overlaet, 2003, p. 167). In contrast, other unprovenanced examples scattered in various museums and private collections are big sized axe heads. One in Louvre Museum possession is a plain axe head with four radius spikes (Godard, 1931, Pl. 17.52) the other parallel, kept in a private collection in London, is a plain example (Potratz, 1968: TF. II, Abb. 10). Ashmolean Museum axe head is the next example with its narrow shaft hole (Moorey, 1971b, p. 53, fig. 20) which make them improbable to have functional purposes while it is impossible to talk precisely about their function based on these lacking data. There is a rare variant of this type with a solid flat blade and three fan shaped spikes at it back. This uncertain axe head is attributed to Luristan by Zahlhaas

(Zahlhaas, 2002, p.41, kat.66), this axe head seem to be earlier in time that the previous examples that will be discussed later.

2.3 Spike butted axes with crescent shape blade

The main characteristic of these axes is the “crescent shape” of their blades. This type is the rarest, among the spike butted axes. There is just one example and a fragmentary of this type, attributed to Luristan. This axe head has three projections at the back of its shaft tube, oriented parallel to the crescent blade. A lion mask is joining the blade and the shaft tube (Potratz, 1968, pp.9-11, Pl. VII. 35; Moorey, 1971b, p. 58). Except its spikes, in the basis of style and iconography, this axe head is comparable to the crescent blade axes, contemporary to spike butted examples (Moorey, 1971a, p.58;Potratz 1968, pp.9- 11, TF. VII, Abbs.35) which could provide chronological criteria for them. The fragmentary, now in a private possession (Potratz, 1968, TF. VI, Abb. 31), has four long pointed spikes. Some part of its blade and a part of the juncture are missing. The ribs on its shaft tube are terminating to a human head enface. These heads, with hooked eyes and prominent noses and lips wearing a simple hood on head, are iconographically paralleled to the heads rendered on Luristan bronzes. In the left of the tube there is hand bearing a rein like object and the head and body are missing.

2.4 Spike butted axe/ adz-axes

The slightly splayed flat blade, joining vertically to the long spiked shaft holes, is the prominent characteristic of these axes/adz-axes. Despite the types mentioned above, these axes or adz-axes s are mainly of bronze but there exist bimetal specimen among them as well. In bimetal axes/adz-axes of this type the blades are made of iron. In these axe heads, like other examples, in some cases the spikes are animal figured or the blades are emerging of a predators jaw. There is no stratified example among these examples yet, but all existing specimen are attributed to Luristan.

The first example attributed by Schaeffer to Luristan is a cast bronze adz-axes head with four animal head figure spikes at its back. The blade is a heavy solid with curved cutting edge (Schaeffer, 1948, p. 488, Fig. 266. 1). The next bronze example belonging to Ashmolean Museum, the spikes in this axe is consist of four lion tipped projections at the back of a shaft tube joining to a simple splayed blade (Moorey, 1971b: p. 62, fig. 9. 31).

The other and somehow different example of these axes is the Khoramabad Museum axe/ adz-axe with an iron splayed blade joining to a bronze long spiked shaft hole. The blade like all bimetal axes is joined by lion mask to the bronze shaft tube with several short blunt projections. The other parallel to this specimen is the Louvre bimetal axe/adz-axe but iron blade is emerging from a lion’s jaw and is decorated by a man face on both sides (Moorey, 1971b, p. 63). These bimetal examples are the rare

specimen among the Luristan spike butted axes which witnessed gradual use of iron in early Iron Age II in western half of Iran and in Luristan as well.

2.5 Spike butted axes with bowstring shape blade

The tall narrow bowstring shape blades with a slot or loop, with uncertain functions, are the characteristic of these cast bronze axes. The short shaft holes set at half-way at the back with various parallel long comb shape spikes running to the shaft. These axes are the characteristic of the South Caspian region according to the two specimens coming from excavations in Marlik (Negahban, 1995, p. 28) and Khurvin (Vanden Bergh, 1964, p. 25, Pl. XXXVI. 247) and among the strayed examples there some attributed to Luristan. Moorey date these axes to the late second and first millennium B.C. (Moorey, 1971b, p. 58) While Muscarella dates the Metropolitan Museum to the Iron Age II (Muscarella, 1988b, p. 98, fig. 161). The first axe from excavation is the Marlik example with 9 long parallel comb shape spikes at the back of the shaft hole and a stylized animal head decoration in one end of the narrow baled (Negahban, 1995, p. 28, fig. 125) the next comparable example is Khurvin axe dated by Vanden Bergh to the late second and early first millennium B.C. (Vanden Bergh, 1964, p. 25, Pl. XXXVI. 247). The other similar example is the David-Weil Museum axe with an additional lion figure decoration at one end of the blade and, assumes belonging to the late second millennium B.C. (Potratz, 1968, Pl. X. 50). The next specimen attributed to Luristan belong to the Reza Abbasi Museum in Iran, this axe, with 6 long pierced spikes attributed to Luristan, has a lion figure in one end of the blade (Talai'I, 2008, p. 65. upper right). Two other axes, Saied to come from Luristan are now belonging to Ashmolean Museum, one with 5 spikes and a curled end and the other with an angular opening in one end and 8 long comb shape spikes (Moorey, 1971b, p. 58, figs. 25, 26). The last example in Metropolitan Museum is dated by Muscarella to Iron Age II (Muscarella, 1988, p. 98, fig. 161).

3. Discussion and Conclusion

Despite the importance of spike butted axes in the ancient world, their vast distribution region and their huge amount among western Iran repertoire, especially in Luristan, our lacking archaeological research and studies has not the potential to answer the important questions about their proper cultural context, people making and using them and their evolution process. The main reasons for this lacking information would be their very limited numbers from controlled archaeological excavations. Yet the available samples from controlled excavations along with the inscribed specimen and their geographical distribution in ancient time should be enough to provide researchers about the historical periods during which Iran and especially western Iran emerged as an important area since early Iron Ages I to early Iron Age III as metalworking center. Their evolutionary process during this period will reveal a cultural interrelation between western Iranian regions and their neighbouring areas.

The morphological classification in this study provides us with a guideline in their evolution process. Although their origin is still controversial what is clear is that, obviously, they have been highly evolved and mostly popular in western Iran and Luristan as well. The origin of these axes, in neighbouring areas, whether from Akkadian or Ur III levels in Mesopotamia or some time later that from Bethshan during Amenhotep III region (early in fourteenth century) or from RasShamra, dated by Schaeffer to late bronze age II ca. 1450- 1365 B.C. (Maxwell- Hyslop, 1949, pp. 104- 105; Moorey, 1971b, p. 49; Overlaet, 2003, p. 168). These axes in Iran start with unstratified Nihavand axe head of this type, with heavy solid flat blade and blunt spikes at its collared shaft tube, which are not unknown characteristics among Mesopotamian and western Iran axe heads, in late third and early second millennium B.C.. Axes in the Western Iran seem to be more practical rather than decorative. There are ornamented specimens however, such as the ChogaZanbil example by animal figure decoration on its blade.

The morphological differences in the following group are their plain slight curved splayed flaring blades set at right angle to their ribbed shaft tubes. These axes are the canonical bronzes of western Iran, mainly Luristan. Four specimen and fragmentary of this type have been recovered from Bard-i Bal Iron Age IA tombs at the end of 13th and the first half of 12th century B.C. (Overlaet, 2005, Pl.4. 1, Pl.6. 12; 2003, pp. 166- 168). The next morphologically comparable examples were recovered from Zalu Ab in Kurdistan, the most northern part of Iran where the axes of this type have been recovered. The differences in axes of this type is their solid heavy blades decorated with human figures rendered enface. This characteristic could be considered as a local feature due to the human figure decorations on the blade and as Overlaet remarks the orientation of this decoration may also indicate a local manner in wearing weapons (Overlaet, 2003, p.168). Such characteristics were not observed among the Luristan examples. The other variants in this group, which are more decorated, are the axes with animal figured spikes. In some cases they have which blades are emerging from a predators jaw, the only example from archaeological excavation is Kutal-I GulGul axe head which have been recovered from the tombs were used during Iron Ages I-II periods (Overlaet, 2003, p. 166).

The next group, in many ways are different from the previous one. The blades in these axe heads are highly curved but while flaring on both rims with a so-called arrow figure on them pointing to the cutting edge. Normally the number of long and pointed spikes does not exceed more than 4 but in some rare examples with very long, sometime to blade length, spikes they may exceed more. Stratified examples are from Bard-iBal and Kutal-iGulgul tombs of Iron Age I (Overlaet, 2003, pp. 166- 167) some unprovenanced variants in this group bear zoomorphic decorations including animals lying or mounting on the upper rim of the blades. These cast decorations on weapons according Moorey originated in Elam, based on some objects from Susa, in earliest years of second

millennium B.C. and diffused northwards from there into Luristan in early first millennium B.C. (Moorey, 1971b, p. 45). The inscribed axes morphologically parallel to this group also confirm these dates (cf. Ghirshman, 1960, p. 210, Pl. XXVII. b; Dossin, 1962, p. 157, PL. XXIII. 13; Amiet, 1976, pp. 28-29, fig. 25; Potratz, 1968, Pl. II. Abb.8; Overlaet, 2003, p. 168, fig. 135. 7). These axe heads seem ceremonial rather than practical, because of their decorations and moreover because of their highly curved blades which make them impossible to use.

The next variant in this group to much extent is different from the previous ones. The main characteristics of them are the radios shaped or fan like spikes at the back of shaft tube. The blades are highly curved with a cutting edge at right angle to the shaft tube. The only examples from excavation were recovered from Surkh-i Dum but in miniature size and a fragmentary from Tang-iHamamlan (Overlaet, 2003: fig. 135. 2) Overlaet compares these fan like spikes with the spikes butted axes depicted on Assyrian ivories from Nimrud, stylistically dated to the region of Assurbanipal II (883- 859 B.C.) or Salmanasar III (858- 824 B.C.) (Overlaet, 2003, p. 170) but they are morphologically different from them. Axes on Assyrian ivories have just three spikes and have slight splayed blades while axes from Luristan have highly curved blades and four long pointed spikes at the back. These axes could be exactly paralleled by an unprovenanced axe head attributed to Luristan (Zahlhaas, 2002, p. 41, kat.66) which has the same blade and three fan-like spikes.

All examples mentioned above, trace stylistic and functional changes during which western Iran's, especially Luristan, smiths stimulated their own style of manufacturing these canonical weapons by changes they made in blade forms, the thickness of the shaft hole and the various forms of the spikes on them. But among these numerous specimens there are some rare examples too, like axes with crescent blades joining horizontally to a vertical spiked shaft tube by a lion mask. Comparable examples to this axe heads but with no pikes attributed to Luristan is dispersed in different museums among which there are bimetal specimen too. The bimetal technique and the lion mask joining the blade to the shaft tube, all indicate a date at about early first millennium B.C. (Calmeyer, 1969, p.70, 155; Moorey, 1971a, p.119; 1991, p. 4). In other rare examples among them are spike butted adzes, in which an adz-shape flat blade is joining to their long shaft tubes. The use of adz axes in Iran became common during Iron Age III. They are considered by some scholars to be a Scythian element in Iran (Curtis & Kruszynski, 2002, p. 50, Pl. 7, Fig. 29). The stratified examples of them were recovered during excavations in an Iron Age III grave yard at Warkabud in Luristan (Vanden Bergh, 1967, p. 53; Overlaet, 2005, p. 16, Pl. 13. 10). The unstratified bimetal example of this kind, which has a long spiked shaft tube, to some extent could be a guide line to date these adz-axes. The iron blade in this example is joined to the shaft tube by a lion mask at the upper part. This lion could be dated to the early 1st millennium B.C.

The bowstring axe heads of this type are totally different form previous examples in their long comb like spikes at the back of their short shaft tubes. These axes could be dated to late second and early first millennium B.C. based on the two excavated examples from Khurvin (Vanden Bergh, 1964, p. 25, Pl. XXXVI. 247) and Marlik (Negahban, 1995, p. 28) and could be considered as the northern evolution of them in Iran during late Iron Age II.

While with the very limited examples of these axe/adz-axes it's impossible to establish a firm chronological and regional frame for these objects, it's obvious that each area in Iran has its own specific type in a specific time span. There are many variant of these axe heads in Luristan, where is the main region of producing them. Although the forms are the same but there are little changes in their blade shape, spikes, and decorations. While in examples belonging out of Luristan although the forms of the axes are the same but they vary in the form of the decoration executed on them especially on their blades. Long spike butted axes with extremely curved blades and long pierced spikes in Luristan, some axes are being made with crescent shape blades. Other variants of spiked axes are axe/adz-axe with horizontal flat splayed blades, joining at the top rim of the shaft tube of which beside bronze examples there are bimetal specimen, stylistically and morphologically comparable to them with iron blade joining with a lion mask to the bronze spiked shaft hole. These bimetal axes/adz-axes show gradual use of Iron, which starts in Iron Age II in western Iran. In northern part in Iran where there is no examples of the previous forms, there smiths are experiencing specific axes with bowstring or triangular blade shapes with the very long spikes running on the very short shaft tube. but still, based on these information, we are not able to determine their function, although much has been said based on their forms or their depiction in some objects out of Iran, but what one should consider talking about their function is that in many cases their highly curved blades and elaborately decorations and in some examples their narrow shaft tubes make them improbable to use moreover all the examples found in Iran were recovered from tombs or temples which is an indication of their ritual or ceremonial functions, this is while there are many miniature examples either from excavation or being purchased.

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Figures:

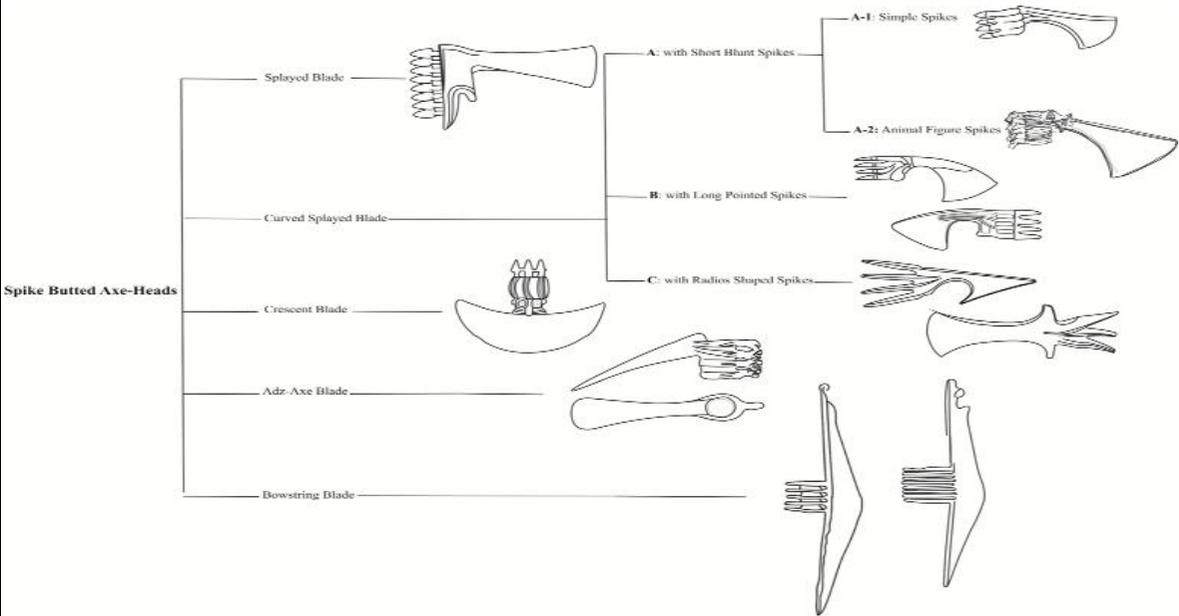


Fig. 1: spike butted axes classification

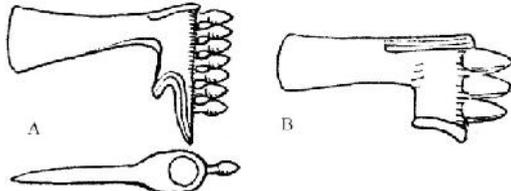


Fig. 2: A: Luristan Axe, British Museum, B: Nihavand Axe (Maxwell Hyslop, 1949, Pl. XXXV, 17A,17)

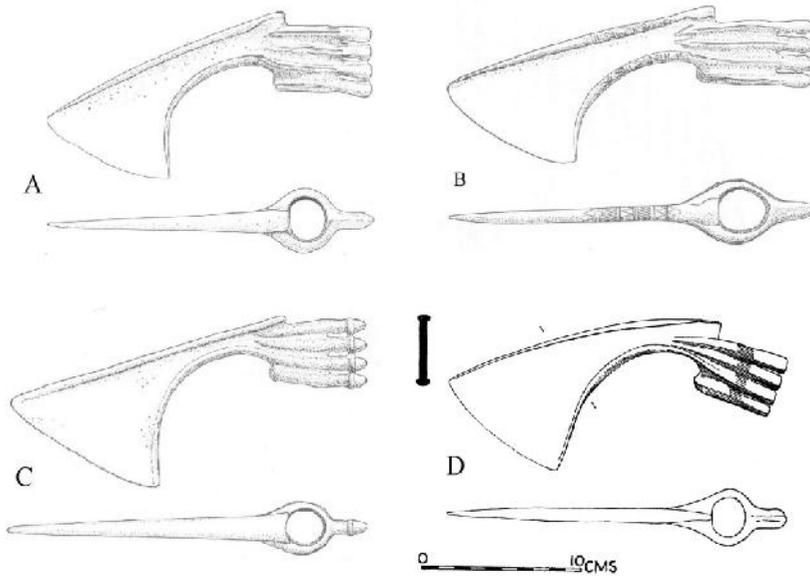


Fig. 3: spike butted axes with slight splayed baled and short blunt spikes (A-C (Moorey, 1971b, figs. 14-15-16), D (Maxwell-Hyslop, 1949, Pl. XXXVI, fig.12)

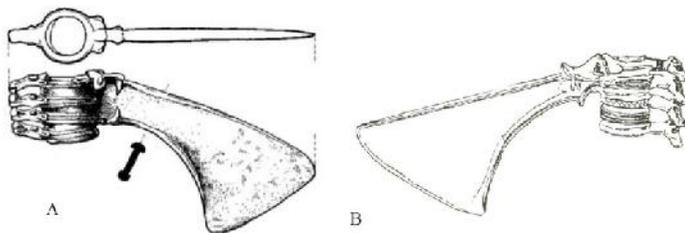


Fig. 4: A: Animal figure spike butted axe from Kutali- Gulgul (Overlaet, 2005, Pl. 6.12 B-C)-B:animal figure spike butted axe in a private Museum (Potratz, 1968, Pl. V, Abb. 27)

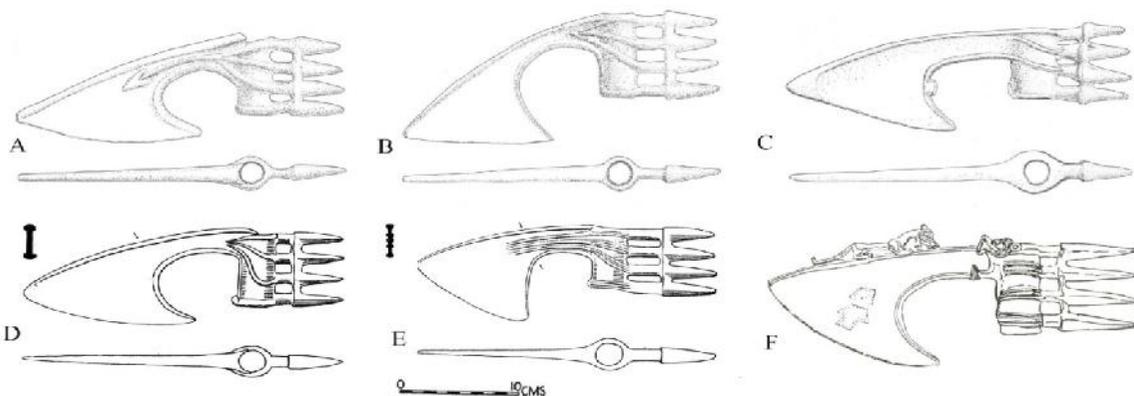


Fig. 5: long spike butted axes (A-C (Moorey, 1971b, figs 17, 18, 19) D, E: (Maxwel-Hyslop, 1949, Pl. XXXVI, figs. 10- 11), F (Potratz, 1968, Pl. IV, Abbs. 22)

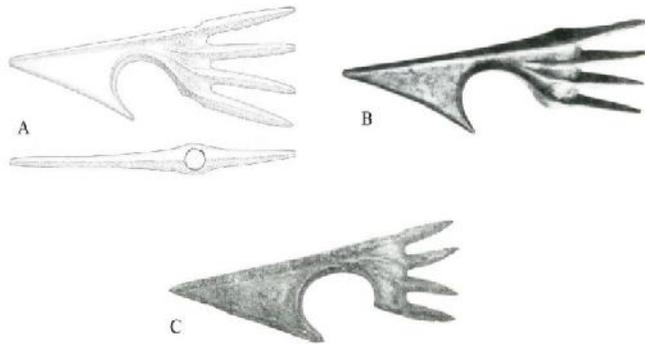


Fig. 6: Fan like spike butted axes: A (Moorey, 1971b, fig. 20), B, C, (Potratz, 1968, Pl. II, Abbs. 10- 11)

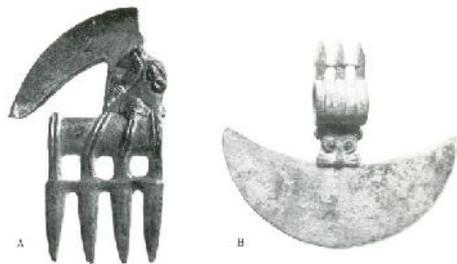


Fig. 7: spike butted axes with crescent shaped blade (Potratz, 1968, A Pl. VI, Abb. 31, B Pl. VII, Abb. 35)

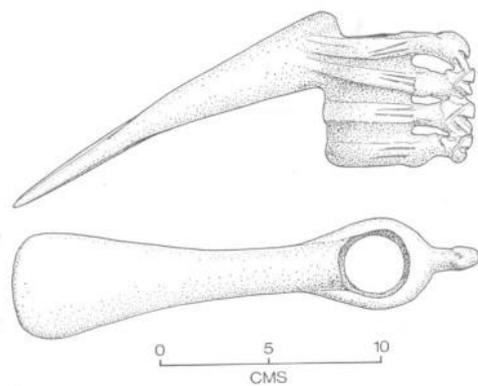


Figure 8: Spike butted adz- axe (Moorey, 1971b, fig 9. 31)



Fig. 9: Fan like spike butted axe (Zahlhaas, 2002, Kat. 66)

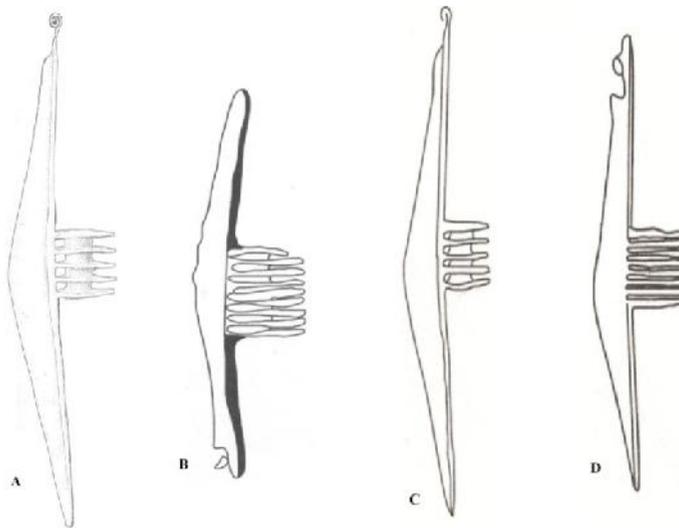


Fig. 10: Spike butted axes with bowstring shape bale, A) attributed to Luristan (Moorey, 1971b, fig. 25), B) Khurvin Axe head (Vanden Bergh, 1964, p. 25, Pl. XXXVI. 247), C) unprovenanced (Muscarella, 1988b, p. 98, fig. 161), D) axe head: Marlik (Negahban, 1995, fig. 125)



Fig. 11: A: Floral figures in spike butted axe head, Iran Bastan Museum (Moshtagh, 2006, cat. 346); B, C: long spike butted axes (Khorram Abad Museum: Iran); D: Bimetal spike butted adz-axe, Khorram Abad Museum, Iran

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