CHAPTER 7; DISCUSSION AND CONCLUSION:
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The Iron Age sites of the province of Gilan offer one of the best pastures for archaeological studies and the animal world represented either by the skeletal remains or the archaeological manifestations, provides a window to the interactive world of Iron Age dwellers of Gilan who not only acquired the skills and command of the livestock and better sedentary life of comforts but also excelled in art and craftsmanship that stand as hallmark of Iron Age of Gilan. While looking into the interactive dynamics of man-animal relationships at Gilan, there emerges a very clear spectrum of settled life with clear reference to usefulness of animal world and some of them being special and revered in the face of the qualities bestowed upon them by nature. However, no study can be holistic unless the physical evidence of animal world is also examined along with all other archaeological tags associated with it. Hence following is the conclusive discussion on the problem outlined earlier on the Iron Age Animal world of Gilan.

Some of the animal remains have been taken from almost all notable sites of Iron Age of Gilan such as Marlik, Kalouraz, Ghale Kouti, Lasulokan, Ghais Abad, Jamshid Abad, Maryan and Toul. In some sites such as Ghale Kouti, Lasulokan and Toul, the study of these bones specified that many of them belonged to domestic animals and few of them to wild animals.

In Ghale Kouti and Lasulokan, 266 NISP of animal bones were identified out of which 156 (i.e. 76%) belonged to wild goat and horse. Considering the study of 55 fragments of animal bones discovered from site of Toul, it was specified that 5 specimens belonged to carnivores (bear and fox), one to duck and a rest belonged to an amphibian (frog) and 47 NISP to domestic taxa viz. Cattle (34 NISP), Sheep and goat (13 NISP) and only one came from a wild herbivore (deer).
Although the study of animal bones has been limited to three cemeteries in the Iron Age of Gilan, their analysis by Mashkour (2005) has shown that:

a) The remains of cattle were the most abundant;

b) Animal husbandry was common among residents of the region by breeding animals such as cattle, sheep and goat;

c) Although these sites are particularly known for their practice of disposal of the dead, strong animal presence in terms of their skeletons along with the human burials indicate the belief of animal association in afterlife as well as the practice of animal sacrifice to the departed soul.

The horse is the only animal whose entire body has been found buried next to the humans in nine out of ten sites selected for the present study. Association of such a beast even in afterlife seems to be a logical interpretation. Similar to the Scythian traditions of killing and burying the horse next to its master may also have been a tribute to the prolonged association the horse has enjoyed for years together. As mentioned before the, complete or near complete skeletons of horses have been discovered in 9 of the total sites examined in this study viz. Tamajan, Marlik, Ganj Par of Kalouraz, Kafar Kash of Kalouraz, Sandas, Shahrans, Maryan, Toul and Siahbil (Table No. 4.2). The skeletal remains of horse in Iron Age sites in Gilan outnumber all other sites in the rest of Iran and eventually only the sites like Ziviyeh (Moatamedi 1995), Babajan Tepe )Goff 1970), Dinkhah Tepe (Muscarla 1974: 78) and Sialk B (Ghrishman 1939: 924) have yielded equine burials in rest of Iranian sites.

In Iran, horse bones have been discovered and identified from the site of Sialk in Kashan from the third millennium B.C. and from the site of Shah Tapeh in Gorgan dating to the second millennium B.C., which has evidence related to remains of
domestic horses. Metal snaffle and reins of horse belonging to the second millennium B.C. have been found from sites of the civilization of Elam (Talai 1995: 109).

The abundance of horse remains in Iron Age, which coincided with the immigration of Indo-European tribes, has encouraged some scholars to believe that the horse was first domesticated by them. However, such hypothesis is rejected with the aforementioned discoveries in Iran relating to period before Iron Age. Of course, the fact that the horse has been very common among Indo-European tribes is further corroborated by the physical remains of the horse, as well as images and figurines of horse, and even its accoutrements such as snaffle and reins, which are found in greater numbers than that of the previous periods.

Horses have been more popular among a branch of the Aryan race called the Scythians, tribes of which have been present in the Caucasus region. Historical reports of their arrival to regions of northwest and northern Iran, such as Gilan in the first millennium B.C. confirm their presence. Archaeological evidence of this can be found in the discovery of 14 skeletons of horse buried beside two human bodies in the Oorsoul site in Caucasus which is related to Scythians (Rice 1991: 107).

With regard to the reason for horse burials in Iran and particularly in Gilan, it is possible to provide two possible answers. One is that the horse has been buried for military commanders, and the other could be that this was done when the horse and its owner were killed in an accident and buried altogether. In any case, the burial of horses indicates a belief in the afterlife, and this was done to respect a deceased person by providing the services of horses for his use in the afterlife.

The tests which have been carried out on the human and horse bones from Toul in Gilan, Khosrokhani and Boye include the following results:
The trace element analyses were carried out using Atomic Absorption Spectrophotometer and XRF on a small collection of bones and teeth of horse and human bones to check the ratio of Strontium and Calcium and other elements like zinc, copper. Interestingly the copper representation in humans is much higher compared to that of Sr/Ca advocating higher intake of animal meat and fish compared to the vegetarian food. However, even higher values of Copper in horse bone turns it to be an anomaly and needs to be seen with caution and to be checked with larger set of samples. Similarly the Zinc too has a much lower presentation. For the practical and legal reasons the transportation of bones of these animals to Deccan College may have been difficult. However, the candidate intends to take up as part of his postdoctoral research in future the lead from this spadework to carry out a much larger and statistically complying no of samples from each skeletal element of animal and human bones for intra- and inter-site comparison so that a clear picture may emerge on dietary behaviour of the animals and their masters as well as the ecological conditions during the Iron Age in Gilan.

Some of the animal findings in the Iron Age sites of Gilan deserve special mention for the pattern of disposal or the association and the size of the individual. Mention may be made here of a large turtle in the Iron Age cemetery of Ghias Abad in Gilan, where the turtle shell was split in half. The custom of splitting the turtle into two halves with an axe, which can indicate the possession of immense physical strength (given the strength of the turtle shell and the force needed to break it) and as a result, the presence of such split turtle in this tomb can indicate that the deceased person had extraordinary power when alive.

- According to what was mentioned in this thesis, there are abundant indirect remains of animals from the Iron Age of Gilan and in fact, it can be said that most artistic depictions and the manufacture of objects in Iron Age of Gilan are affected
by the presence of animals. Indirect remains of animal have been classified in 6 groups:

1. Containers with spouts shaped like the beak of bird
2. Zoomorphic objects (Rhytons),
3. Figurines of animals,
4. Decoration of objects with animal designs,
5. The objects which were made only to be used for animals,
6. Other rhytons which have special form.

The first group of objects, which are affected by the presence of animals in the Iron Age of Gilan, include some ceramic wares with spouts that resemble bird beaks or animal snouts. In Gilan, such objects have been obtained from the sites of Marlik, Kalouraz, Jamshid Abad, Shahran, Ghale Kouti of Kohpas, Vaske, Maryan and Toul, Estalkhjan and Joboun (Table No. 4.3). Meanwhile, these containers have been obtained from some sites of Iron Age in other parts of Iran such as Sialk, Ghaytariyeh and Khorvin (Refer to: plate No 5.3, 5.4).

The history of the discovery of such containers in Iran dates back to the period before the Iron Age, but it was not as common in that period. It seems that the main aim of making spouted containers was for the purpose of storing and pouring liquids and that their manufacturers have tried to evoke the form of bird beaks, especially those of pelicans, in the shape of the spout. This shows a deep interest in the animal life of the region and the willingness to capture their likenesses in the material artefacts of the people with great care.

The second group of objects affected by the presence of animal has been introduced as zoomorphic containers or rhyton. Such objects which have a zoomorphic form are almost always made from ceramics and seldom made from metal or stone. These
differ from animal figurines in that the body of the rhyton is hollow, intended for the purpose of drinking and storing various liquids. Such rhytons have been abundantly found from Iron Age of Marlik and from Kalouraz, Vaske, Maryan, Amarlu and Rashi and have been found at random from unauthorized excavations in Gilan (Table No. 4.4).

The rhytons discovered in Gilan have been made most frequently in the form of cattle, and then in the form of birds. 15 out of 36 rhytons mentioned in this thesis are in the form of cattle and 9 rhytons are made with a bird’s body with a bovine head. Others are in the form of birds, deer, rams, goats and bears (the type of bird is not clearly specified). According to what was mentioned in various legends considering religious Zoroastrian sources and the Avesta, cattle have been sanctified and respected due to their utility and because birds could act as mediators between live humans, the deceased, and God, for which they are given more respect than other animals.

Therefore, it can be concluded that this thought of Zoroastrian religion whose primary period coincides chronologically with the Iron Age to some extent, can be generalized to the entire Iron Age. Second, rhytons discovered from Iron Age sites of Gilan were mostly found with animal forms, where the old legends and beliefs indicate respect for those animals. Only two cases, those of donkey and bear, were not in line with the attitude of respect seen in most legends.

The function of rhytons is not well known, but scholars believe that most of these containers had a religious function and have been used in ceremonies such as ritual wine making, which was a common practice among Aryan Tribes (Kurochkin 2002:37).

Rhytons of cattle with very large humps and skillful workmanship have been found from sites of Iron Age of Gilan. These cattle are depicted as wearing earrings in
several cases. Considering this phenomenon, the statue and rhyton of humped cattle is known as the historical symbol of modern Gilan region. Such rhytons have not been found from excavations of Eshkavarat region, which is located in cultural district of Dailaman and Amlash. It was explained before that this has resulted due to a geographic difference, where the absence of plains suitable for agriculture and thus an inability to utilise the abilities of cattle led to its importance being reduced in these regions.

The third group of indirect remains of animals in the Iron Age of Gilan includes a large number of figurines of various animals which have been made from solid metal, particularly bronze. In this regard, 94 well-preserved figurines were discovered from the sites of Marlik, Kalouraz, Joboun, Ghale Kuti, Sepestanak, Amarlu, Maryan etc. These are discussed in chapter 4, where it can be seen that Malik alone has 40 figurines. After analysing and comparing them with the finds of Iron Age sites of other regions of Iran in chapter 5, and mentioning the relevance of the myths and beliefs of people in the region in this regard in chapter 6; some important points about them can be summarised as follows:

1. Out of the animal figurines discovered from the Iron Age sites of Gilan, cattle are the most common, followed by deer. This is in line with Iranian legends which looked at cattle and deer as sacred (28 figurines of cattle and 18 figurines of deer have been obtained from the site of Marlik).

2. Male figurines are found to be more common. This issue may result from the patriarchal bias of Indo-European tribes, where all major deities are male. This is common among the religion of the Indians, Iranians, the Greek and Romans (Bahar 2002: 449).
3. Many of these figurines have a ring on the back which has been embedded for threading a needle or chain for the purpose of hanging the figurine. It is necessary to note that these rings are found only on the back of special animals such as cattle, goat, deer and bird and they have not been installed on the backs of figurines of certain animals such as horse, cattle, dog, cat or leopard. This seems to have a religious reason and it can be understood that these animals were more sacred and respected.

4. Another feature of the animals discovered from Gilan is their realistic depiction and one can understand joy, mobility and vitality from the faces and bodies of the animals. This feature can be found in figurines discovered from this region and metal figurines discovered from the Luristan region of Iran. Except these two regions, some figurines have been discovered from Iron Age sites of other regions of Iran, especially from sites of this period such as Gohar Tepe, Sagz Abad, Ozbaki and Gholi Darvish, which lack such characteristics and have been extremely stylized (Refer to: Plate No. 5.7).

5. Some animal figurines were made with an attached plough, or depicted as carrying humans on their backs, or with wheels fastened to their legs. This evokes some images of agricultural and transportation activities, using these animals of that period.

Another group of indirect remains of animals in the Iron Age of Gilan includes designs with subjects. In this period in Gilan, colorful paintings on the body of earthenware, sometimes with animal subjects, is very rare and limited to special cases (Fig No. 4.199). The lack of painting on earthenware of Iron Age of Gilan results from cultural transitions in the Iron Age of Gilan. In this period, monochromic gray and red earthenware had replaced painted earthenware. Painted earthenware is also common in some sites of the Iron Age such as Sialk in Kashan and Haftvan Tepe in Salmas.
Unlike the shortage of colorful painting with animal subjects in the Iron Age of Gilan, embossed and etched designs—especially with animal subjects—are found on certain objects of these periods. However, the presence of such designs is not found in all sites of the region. These designs have been applied on various objects made from gold, silver and bronze.

Out of the objects discovered in these periods from the site of Marlik and Kalouraz, some deserve special mention. These special objects include certain motifs and designs such as: winged cattle on two sides of the tree of life, winged horse, life history of wild goat, scenes of hunting or exterminating vermin, designs of eagle, composite birds, fish, cattle, horses, deer and goat. Such designs convey details and cultural concepts of that period more than any physical animal remains left from that period. These scenes are coordinated with subjects mentioned in Iranian legends and beliefs, as can be seen in the subjects depicted, such as winged cattle, winged horse, eagle, composite birds and so on.

In the site of Marlik in Gilan, designs of birds (13 examples), goat (9 examples), composite animal (7 examples), deer (6 examples), lion and camel (4 examples each), cattle and horse (3 examples each) and leopard, swine, ram, monkey (1 example each) have been applied on the objects (Refer to: tables No. 4.7, 4.8, 4.9).

In one of the golden cups discovered from Marlik, the images of the entire life of an antelope, from birth and infancy to death, are found (Negahban 1999: 225). These are known as ‘life legends’. In fact, these designs relate to Indian and Iranian designs in which a hoofed animal is shown from birth to death (usually by hunting). Similar to this phenomenon are the raised designs on the necklace discovered from Tolestaya Mogila in Caucasus, and on a bead attributed to the Mitanni, from the treasury of Estar Abad found in the northeast of Iran and in Afghanistan (Kurochkin 2002: 34). In all of these raised designs, first, a hoofed animal is shown suckling the breast of its mother.
and at the end, it is hunted and preyed on by another animal which is usually swine or vulture.

On a silver cup discovered from Marlik, a man is seen fighting against two leopards on either side. It appears that these leopards seek to kill a goat, which is shown sheltered on top of a tree and the man is fighting against the leopards to save the goat (Refer to: fig No. 4.190). In addition to Marlik, similar designs have been also found in site of Hassanlu (Refer to: plate. 5. 9 fig. 5) and on a bronze plaque discovered from Luristan. This design has resulted in some hypotheses about the tribal origin of this story, while showing common the culture of the Iron Age in some parts of Iran. In a paper, Zahra Nabil has regarded the bronze plaque discovered from Luristan, which has such a design, as affected by the civilization of the Kassites (Nabil 1968: 24 to 30).

The Kassite tribe was the first groups of racial immigrants to Iran, some of whom are regarded as Azianik tribes (Asians). There are many views about the origin of the Aryan race and whether it was separated from Semite and Aryan races. What is important is that some tribes with the same name lived in regions which conjoin with Gilan, Luristan and Kurdistan provinces. Of the evidence left from residence of Kassites in Gilan are the name of the largest lake in the world i.e. Caspian Sea which is located in the north of Gilan and some terms with the word “Kass” which are common among the people of Gilan even today (for example, the word “kass choom” is attributed to a person who has blue eyes) and one of the evidence for their residence in the western of Iran (Kurdistan and Luristan) is historical literature, which clearly give evidence of this issue. In these sources, these tribes lived in the mountainous regions of Gilan during the Elamite Period, [which conjoin with Kurdistan and Luristan provinces] and they exploited the weaknesses of the Babylonian government in the second millennium B.C. and took control of Babylon. However, they were eventually overthrown by central government of Elamite (Nabil 1969: 24).
Considering the evidence that Kassites resided in Gilan and Luristan, and considering very high similarity of archaeological evidence from these two regions including figurines of animal or the bracelets with animal head on both ends, it can be said that the culture of the Iron Age of two regions has been affected by culture of Kassites or it can be said that the tribes which have arrived to these regions as Arians have developed the culture of Kassite tribes who lived in the region before them.

The Iron Age in Iran and Gilan has occurred after a series of changes and innovations. The identity of the group that brought about these changes is under debate. A part of these changes in the special zone of Gilan seems to result from the arrival of a branch of the Aryan race, namely the Scythians, to this area. The Scythians had a special reverence for horses, which has persisted in the archaeological culture of the Iron Age of Gilan.

From the viewpoint of change in all of Iran, it is mentioned that these changes are the result of the immigration of Aryan tribes including Mede, Parthia and Pars groups to Iran, and originate from the culture of immigrants (Young 1985). Considering the discovery of archaeological evidence from Iron Age sites of Iran, the previous beliefs should be revised and it is hypothesised that Aryan tribes were not the origin of the Iron Age culture of Iran but they had a role in decline and extinction of the existing local cultures, and the spread of Aryan culture from northeast Iran to the centre, north and northwest of Iran (Young 1994). Some archaeologists sought to conduct further studies on the Iron Age culture of Iran in recent years and did not believe in the integrity of the Iron Age culture of Gilan. They declare that the geographical regions of Iran had separate, local Iron Age cultures and attitudes toward the different cemeteries and sites of the Iron Age cultures of each region should be different (Talai 2008).
The analysis of the presence of animals that was presented in this thesis also proves that it is erroneous to have a one-sided look at the Iron Age of Gilan. The present work emphasizes on the claim that geographical region, cemeteries of Iron Age and habitation sites of the Iron Age should be studied in juxtaposition and investigated in their own right as regional cultures.

Considering the views mentioned above, the results of animal studies in Iron Age of Gilan can be mentioned as follows:

1. Animal husbandry was the largest and most common economic activity, which was based on well established husbandry practices and goat and sheep were major contributors to the food economy.

2. The cultural zone of Sefidrood in the Iron Age of Gilan has higher agricultural capabilities than the two zones of Polrood and Karganrood and this caused the increase in the importance of cattle in these zones. Consequently, figurines, rhytons, and images in the likeness of cattle were more abundant in the Sefidrood zone than that in other two zones.

3. The combined factors of geography and environment have been effective in the attention given to a special animal in the arena of creative art which is common in those conditions. For example, the role of pelicans as represented by containers with beak-like spouts is frequently encountered in the Iron Age sites around the Sefidrood region in Gilan.

4. The presence of remains of animal bones, especially birds, inside containers placed beside a dead body in graves at the sites of Lasulokan and Ghias Abad indicate that besides routine consumption of these birds, offering them to dead was a common practice. It clearly shows a special significance attached to the bird and also the belief in the afterlife where the deceased would still require food.
5. The presence of scattered animal bones among the remains found in the Iron Age cemeteries of Gilan, which are normally allocated to the burial of humans (and of horse in some cases) indicates the widespread presence of animals at that period and in the region.

6. Nine out of forty Iron Age sites in Gilan had a place chosen for burial of horses, either separately or beside humans. This phenomenon may be an outcome of the influence of Aryan tribes, called Scythians, who interacted with the locals in some parts of Gilan during that period.

7. The horse burials in the Iron Age of Gilan resemble very close to the burial customs of Scythians. It was not the religious importance the animal was given to but the most practical of being a symbol of mobility and eventually supporting their faith in imperialism. The animal's burial next to his master highlighted the supreme position horse had achieved in the life of Scythians but also the belief that he could help his master for mobility even in after life. Looking at the material evidence associated with horse including its burial association, it can be explained that the Iron Age inhabitant's approach to horses (especially of those coming from period III and IV) may have been very similar to those of Scythians.

8. Zoomorphic objects or rhytons which were made as hollow vessels had religious functions, such that it seemed that people of that period preferred to drink milk or ritual wine from inside the container with the face of their preferred animals. The further residue analysis of these rhytons can only help us in identifying the actual contents and/or precisely for what kind of liquids they were used.

9. The animal figurines with rings embedded in their backs seemed intended to be hung in special places, or around the neck of a person. This had religious reasons
and resulted from the interest of humans in that special animal, to which they wanted to remain close, even in iconographic form.

10. Ringed rhytons and figurines have been made to resemble a group of useful and respected animals on which legends have been formulated. They are absent for animals that are considered evil or inauspicious.

11. Many rhytons discovered in Gilan are fashioned in the form of bird or as a combination of cattle and bird. The probable reason for this is the fact that rhytons were containers for drinking various liquids, and birds are symbols of the purity desired in those liquids.

12. Animal figurines and rhytons discovered in Gilan are comparable to finds from the Iron Age cemetery in the centre of the Iranian Plateau, such as Khorvin and Ghaytariyeh and Hasanlu cemetery. Such objects from other sites of the Iron Age in Iran, such as sites of Gohar Tepe, Sagz Abad, Ozbaki and Gholi Darvish are stylized and lack details in comparison.

13. Some containers were discovered from some Iron Age sites in Gilan as well as other regions of Iran, which had spouts embedded with animal figurines. They seem to be one of the common cultural phenomena of this period in the entire Iranian Plateau.

14. Designs of camels seen in images from the site of Marlik in Gilan, and the presence of some objects which have been made with a kind of oyster shell only found in the southern seas of Iran, indicate communication and cultural relations of this site with others in southern Iran and Mesopotamia.
15. In the Iron Age of Gilan, Cattle are the most common form in terms of the figurines and rhytons discovered, while designs of birds, goat, and deer were most abundant in the case of animal images and motifs.

16. The respect for, and attention given to special animals seems to be caused either by fearing the animal, or by appreciating its value and utility. On this basis, some animals such as cattle, horse, dog, goat and sheep have been respected for their usefulness, while other animals such as lion, leopard, wolf, bear, eagle and snake have been considered for the fear that they inspire. Some animals such as frog or fox, which were neither useful nor dangerous enough to inspire fear, were not given any importance as such.

17. Evidence indicates that humans in Iron Age of Gilan had looked at certain animals as symbols of power. They also believed in polytheism and the thought that combining various totemic animals into a composite, imaginary creature would make it an even more powerful symbol.

18. The similarity of animal objects discovered from the Iron Age of Gilan, to those discovered from Luristan indicates a connection from the time of the residence of the Kassite tribe in these two regions.

19. The clear difference between figurines discovered from cemeteries and the habitation sites probably indicates that objects inside the tombs do not necessarily include routine objects that the people of the Iron Age used in their everyday life, although some objects might have been common to both.

20. Some animal figurines have additional features which do not have any religious or symbolic justification, like the examples in which there are wheels at the bottom of the animal’s body, or where the animal’s face has an exaggerated human
expression. Therefore, it is likely that those objects had been made for the amusement of children, like today’s toys.

21. The trace element analyses of bones and a tooth of horse and human bones clearly highlight the importance of chemical analyses of bones from archaeological sites in understanding the dietary profile of ancient humans and animals and also in understanding the cultural and ecological dynamics of the ancient landscape. Since small sample sizes from three sites of Iron Age of Gilan were examined, a synoptic view of palaeodiet is made available by this study. The predominance of copper hints at the consumption of animal meat and fish while the ratios of Sr and Ca correspond to range of values known for the herbivores and man. The results may pertain to just a couple of individuals from the entire complex of ten Iron Age sites but being the first ever approach in Iranian Archaeology, it has opened up fresh avenues for archaeological sciences with especial reference to palaeobiochemistry.