Journal of Engineering and Applied Sciences 12 (5): 1331-1341, 2017

ISSN: 1816-949X

© Medwell Journals, 2017

Evaluate the Potteries Designs of Giyan Hill from the Symbology and Semiotic Perspective

¹Seyed Mohsen Madineh, ³Ahmad Reza Sohrabi, ²Abdolmajid Mohammadi and ²Akbar Veismoradi ¹Department of Accounting, ²Department of Management, Payame Noor University, Tehran, Iran ³Department of Accounting, Islamic Azad University, Mobarake, Iran

Abstract: In pre-historic, potteries designs represent the minds and beliefs of the people of that era. Giyan hill by dating back of 5,000 years in the West of Iran has always been an important issue that has continued without stop for thousands of years. The potteries designs of this hill in five archaeological layers that covers fourth millennium to the early of first millennium has five different styles from each other. Designs of potteries have been sometimes symbolism areas of inhabitants of this hill and sometimes is not seen any designs on potteries. Human of this period have has attention to natural elements like the moon, sun and mountain, animals, land and waters and pay attention to the symbolism in various forms. Difference in designs in different layers can be opens the door to understanding the minds of artists of Giyan hill, although it can never be definitively ruled because the symbolic forms have very complex forms in themselves.

Key words: Gyan hill, symbology, semiotic, potter, complex forms

INTRODUCTION

Giyan ancient hill in length of 150 m and a width of 350 m is located in 16 km of southwest of the city of Nahavand in Hamedan province. This hill was discovered in 1926 by professor Hersfeld. After that with the support of the french national museums council and the ministry of public education of that country, archeological board was dispatched to this hill and so that drilling this hill was carried out under the supervision of G. Contenau and R. Ghirshman. The results of this excavations were published in 1933 in a book entitled "FOUILES DU TEPE-GIYAN" in France. Giyan hill has 5 archaeological layers. The fifth layer is oldest layer which its dating back is returned to fifth millennium BC. The first layer is the newest layer and is related to the first millennium BC. In this study, the layers are introduced at first and then their features are expressed. Then obtained potteries of the five-layers are examined that in this context potteries designs are analyzed from the semiotics and semiotics perspective. In this study, library method has been used to collect data. Research conducted in relation to the Giyan hill designs are as follows:

- Recognition of the symbols of heaven and earth in pre-Islamic Iran with an emphasis on researches of Givan, Shahdad, Shush, Silk and Marlik
- Examine ancient Iran potteries found in the Dafineh museum (Giyan hill and Godin hill)
- A comparative study of ancient Iran potteries designs (Silk, Shush, Giyan)

Introduction of different ancient layers in the Giyan hill:

Pottery of this layer of Giyan hill that is located between the depths of 5.7-19 m in relation with the neolithic period. In this period the potters are succeed to complete roasting and by punching and kneading mud, all air bubbles were out from the chin mud and it was ready to further formability. As well as different levels of pottery were designed by designs and geometric lines and roles and these designs gradually turned into animal and plant images. And thus were created a change in their potteries. We also saw this change in the fifth layer of Giyan hill. Potteries's piece that is obtained from the deepest part of this layer is the coarse pottery with geometrical forms and gradually appears in higher depths of animal images on potteries with better quality.

Buff-colored pottery painted in the early fourth millennium BC in third silk, fifth giyan, fence IC, Shush A and Bacon A has been entered to culture pottery category and has taken place of pottery ocher... shaping pottery has been by the pottery wheel and the composition of the potteries include: cup, bowl, cups and leggy cup. The cups have a smooth living and vertical wall (Seifallah, 2000). "In this study, potteries with yellow background or pale green with black designs have obtained. The design of these designs include geometric lines like serration and broken lines and triangles that are connected on the one hand to gather, maltese cross, diamond, plaid and circles that inside them was decorated. Vegetable topics had been designed on these containers and row of waterfowl and antelope is also seen from the 14 m to the bottom row "(Louis, 2008) in the graves of this layer of everyday life

accessories and also needed food and has been buried with its. This layer dating back reaches to the fourth millennium BC.

Fourth floor is related to 2500-3000 before BC. Bottom of containers during this period is elliptical and at the top of the container where that has the maximum diameter a circle mired that has particular bend in its arc is added to it that reduces opening diameter to about half of the width of the container. Previously, the only deep wide opening containers that there were only deep wide opening containers that their opening diameter was equal to the width of the container. Then opening of containers was intentionally closed to closing them that were used to store food easier.

Painted pottery obtained from this layer is yellow and sometimes close to brick color its mash had been cooked well and its designs are in black. Large jars obtained from this layer that design is often in the neck and shoulder. Designs include horizontal jagged lines and wavy lines. Decorative shape dominant on these containers is strange design that Ghirshman calls it as the animal-shoulder. This class of metals has been obtained abundant. This millennium is the beginning of Bronze era.

Third class is related to 1800-2500 before BC which is located on the fourth layer. There is red pottery brick color with black designs. Great jars are of considered containers. Sequence of the native civilization in this period potteries with the appearance of pottery painted with strange shapes, such as "spherical" and three specific bases. Three bases striking flowers are seen in this layer that sometimes small cups are attached to the edge of them. This type has been decorated in red color with horizontal stripes and black geometric designs. Containers like pot (in the form of dumping truncated cone) with horizontal stripes and focused semicirculars have been decorated in edge as it is seen in this layer. in this designed layer unique to geometric patterns including triangles, hatching, horizontal and wavy lines.

Second floor is related to 1400-1800 years before BC. "In the second layer of containers before Iranian continues but is not seen return to the decoration of animal images that can be seen in the second layer" (Roman, 2009, 2010) this layer of dough greyish yellow painted pottery and motifs the color is black. Containers include small abdominal bowls and leggy cebu and handled cup that have been designed with geometric designs with images of birds (Louis, 2008).

The first period of giyan hill has four layers. The oldest layer of this period is position of containers supply with a combination of tall cups that have been drawn in animals with geometric signs with formation of plait in dark black objects found on the first floor covers the

years of 1100-1400 before BC. From containers of this layer can be noted to handled or non-handled cups that are yellow pea.

In the newer layers of this period the base button cup is gradually changed with patterned body. And in the same compounds appears in gray, black, black pottery. In addition to the gray containers we rarely see pottery in vermilion red, burnt red, brown, green and mung and green grayish to gray. In addition to cups in this layer pottery cups and glasses that are also as a means to drink are seen.

MATERIALS AND METHODS

Evaluation of potteries designs in different layers: Fifth layer including designs are seen in this layer at a depth of 14 m is design of the antelope. Antelope design also is seen on the potteries pieces that have obtained from this depth (Fig. 1). "Antelope is symbol of agility and Vulcan of month" goat is a sign of agility. A sign of the desire for freedom is a hasty freedom. Heavenly interactions tools in favor of land and even a sign of agricultural and growing. Goat how physically and spiritually is symbol of spiritual teacher but the connotation of being quirky of goat is sign of blessings unexpected from God. Male goat is symbol of genital strength, vitality and fertility. Goats often are nocturnal and lunar. Animal is tragedy and symbol of critical ferment and at the same time is gracious and corruptible (Jean, 1999). "The goat represents male nature, life force, creative energy; life represents excellence in the high places. Goat represents female reproduction force and fertility and abundanc. Antelope is a lunar animal" (Cooper, 2007).

Phyllis Ackerman concluded in its investigations that "the civilization of Iran and elam May has been first God that has been praised. However, religious beliefs and other values besides this is not evil but with certainty are counted most essential concepts in religious rituals

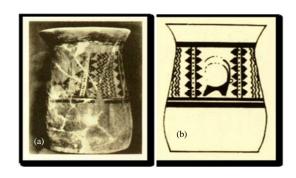


Fig. 1: a, b) Reveals pottery container from a tomb of the fifth layer (Ghirshman and Contenau, 1935)

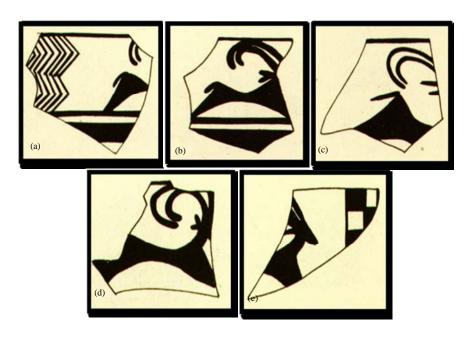


Fig. 2: a-e) Piece of potteries related to the fifth layer (Ghirshman and Contenau, 1935)

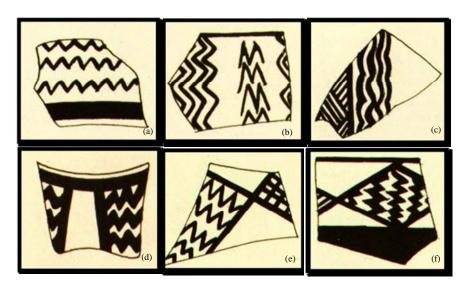


Fig. 3: a-f): Piece of potteries related to the fourth layer

during this period. Designs and paintings have been belonged to 4,000 years BC generally has been attributed to the sky the moon and the rain" (Samadi, 2004). Goat's horns are great as exaggerated. As we know, at first horn horned animals in terms of the apparent similarities with the moon were known attributed to the moon. The goat's horns in exaggerated are big means to force of birth and fertility. Horns are a symbol for fertility force of moon. Goat is the only once has been designed on the container. Goats may be victim to the divine celestial, according to Cooper's words "The number of victims to the heavenly gods is odd. It is also the sign of early unity began the

creator the principle of removing ferment and unrest the main duality and multiplicity that arises and then returns to unity" (Cooper, 2007). The design of goat in potteries of this period as well as exist in other neighboring civilizations and represents the importance of this animal for the people of this era. The human of this period knows the goat and other horned animals to feed provider of humans and the source of continued in his life. The wavy lines can be seen in the fifth layer designs (Fig. 2). Its examples can be seen in Fig. 3. Wavy lines according to news of Hohnehgar are of water. Pope of wavy lines know as water symbol and notes this sign has been used in

pictogram to refer to water from earliest times and because is drawn frequent and in parallel shows the canteen of moon.

"Water is the first element that has created everything and therefore, an ancient symbol to Zahedan and fertility as well as a symbol of purification and rebirth. In the ancient art of water that is shown by a number of wavy motifs (Alfred, 2011). Dosoo in-depth examination following the discovering different motives designs: decorating pottery with wavy or zigzag lines, known as water lines that are from themes of the fourth millennium BC is to display the contents of the container and the human tendency toward the water.

"Water is the source of life by cultivating and center of life again. In Asia water is substantial form of emergence the principle of life and rebirth physical and spiritual element. It is a symbol of fertility, purity, wisdom, grace and virtue. Water is the principle and the carrier of all life. Water is vegetable juice. Water in the area of the material since is considered as a divine gift, universal symbol of fertility and fertility" (Jean, 1999). Wavy lines in this era are water symbol. Water has had great importance in this period of human life and the frequent presence of wavy lines is the reason for this fact.

"In all world religions and religious art almost have been embodied all the world animal traits in the main deities or gods that have been like animal species. Frequency animal symbol among religions and arts of all time not only indicates the importance of symbolism It shows how much it is important for human to be mixed up with emotional content of symbol means instinct. The animal itself is neither good nor bad. The animal is only a part of nature and follows its instincts. Urges which often are mysterious to us but there are in our own lives the instinct is basis of human nature. Of course, if the "animal" in man (that is his instinctive mental) not to be detected may be dangerous. Acceptance of animal spirit is condition for the unity of man and complete prosperity of him (Zia'pur, 1979). So, the emergence of animal's design after a period that geometric designs are dominant on the potteries indicates that the man living in this hill has given animal character to gods in their worshiped and in addition of this by dragging the animal design has tamed his/her inner animal.

Fourth layer: It is one of dominant designs on potteries of this period is the design that Ghirshman it calls the animal-shoulder. The simplest species and perhaps the prototype of animal-shoulder (Fig. 4). In other samples obtained from this layer we see a bird design and vertical lines have been drawn in parallel, so this design is a design that the artist of Giyan has invented it own self

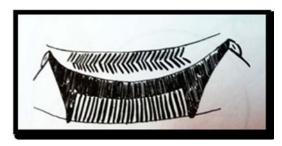


Fig. 4: Design of animal-shoulder (Grishman)

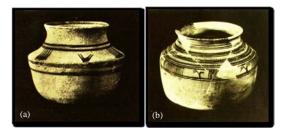


Fig. 5: a, b) Potteries discovered of the fourth layer of Giyan hill (Ghirshman and Contenau, 1935)



Fig. 6: a, b) Painted pottery crock the third millennium before BC, Museum of Iran (writer)



Fig. 7: a, b) Discovered pottery crock of the fourth layer of Giyan hill, museum of Iran (ancient Iran museum archives)

(Fig. 5). Figure 6-11 are examples of the fourth layer that there is design of animal-shoulder in them. Animal-shoulder is one of additional head of animal's compounds that in designs of this era has two heads.

Two heads that are looking in left and right are symbols of the beginning and ending, past and future,

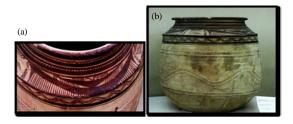


Fig. 8: a, b) Buff pottery crock, discovered of fourth layer of Giyan hill, museum of Iran (writer)



Fig. 9: Piece of pottery discovered of fourth layer of Giyan hill (Ghirshman ad Contenau, 1935)

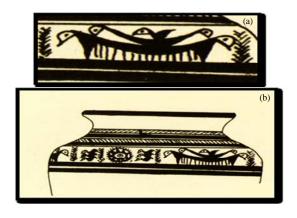


Fig. 10: a, b) Discovered pottery crock of a grave related to the fourth layer (Ghirshman and Contenau, 1935)

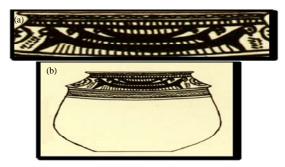


Fig. 11: a, b) Discovered potteries of a grave in the fourth layer (Ghirshman and Contenau, 1935)

yesterday and today, lunisolar forces, fate and choice and are studied all dual aspects of a phenomena (Cooper, 2007) heads in images of 15-19 have a beak in images that show the shape of a bird. Vandenberg knows this design as the bird-shoulder. Two birds have been connected of back together. That can give bisexual meaning in which case the symbol of the unity of heaven and earth, male and female bonding forces. The result of this alliance in the form of parallel lines that have been drawn vertically those are as a sign of rain. These lines are a symbol of fertility and fertility. Mentioned figure has been placed twice on the top of each other while the upper size is smaller and on top of those, a small bird has been drawn. Three rows on the top of each have been designed.

Three means to plurality, creative power, growth, surpassing dominant duality. Force of tree is universal and subject to the nature of three-dimensional of the world means to heaven, earth and water. Three means to human includes body, soul and spirit. Three is meant to birth, life and death, beginning, middle and end, past and now and future (Cooper, 2007). This shape has multiple strange head. Head is the strong position of the life, death and the body power. The head is embodiment of wisdom, thinking, control and governance. Hence, it is important for artist that has drowned many heads and throughout this period has designed this design on the containers. According to this explanation of this oddly shaped as shoulder is a symbol, according to these explanations of oddly shaped as animal-shoulder is a symbol. A symbol that over the several centuries has been dominant on the containers of this period. To find out what is the symbol other designs will be investigated along with it.

Concentric circles which Shamse is located within it is a design that has been portrayed along with animal-shoulder shape. Different samples of this design can be seen in Fig. 12. This design has been portrayed in most containers. The number of Shamse and their plumage is different in each image.

Doctor M.L. Fon Franz believes that circle is its symbol. And it represents psychology with all its aspects including the relationship between human and nature. Whether this symbol in sun worship to be among primitive peoples or new religions. In any case always has been an expression of the most important aspects of the life means its unity and territorial integrity. Professor Jung thoughts, feelings, meditation and consciousness knows four functions for self consciousness that gives possibility of interpretation to human internal and external perceptions. Eight feather that is located of central point shows the four functions (eight feather shows of four functions that adapt to the emergence of the four mediators functions) finally to the twelve feather (it is complete circle) and the circle that is a symbol of perfection (Zia'pur, 1979). According to Cooper circle is

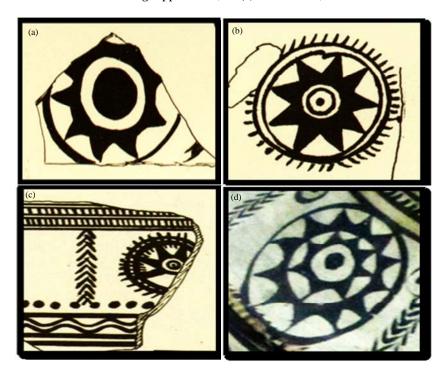


Fig. 12: a-d) Cooper circle a symbol of sun

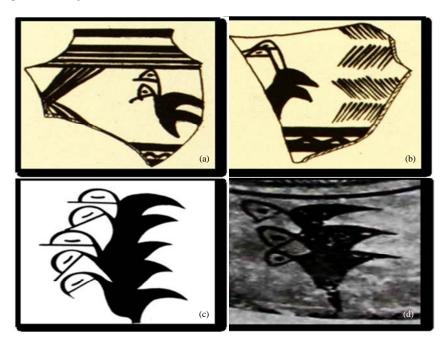


Fig. 13: a-d) Some birds manifestations of imagination

a symbol for the sun. This shape is between the animal-shoulders and the animal-shoulders attention is to it a symbol for the sun. This shape is between the animal-shoulders and the animal-shoulders attention is to it.

Birds category that are on the top of each other is among designs are seen in containers of these layers. Jean Knight knows the bird as a symbol of the world kingdom against snake of earth world and also knows the symbol of the soul (Yousef, 2000) (Fig. 13). Excellence,



Fig. 14: Pottery little cup discovered of the third layer, museum of Iran (Iran ancient museum archives)

spirit, soul, epiphany, air spirits, spirits of the dead, ascended into heaven, ability to communicate with the deities or entry into highest degree of intuition, imagination are manifestations that Cooper says for the birds (Cooper, 2007). Two plants have been designed on both sides of the animal-shoulder (Figure 6, 8, 10 and 11). Knight knows the plant as a symbol of dense force and solar revealing according to the Cooper also the plants are symbol of death and resurrection the power of life and the cycle of life. Plants and trees are often associated with cults for the months.

As seen in the Fig. 6-9, it can be seen the wavy lines on the bottom of the container shoulder designs have been drawn horizontally round of the container. As mentioned earlier these lines represent the water. According to what was said animal-shoulder is avatar icon of god of heaven that has wisdom and knowledge that is a factor to achieve perfection by human. The circle symbol of the sun. Wavy lines are symbol of water and plants are symbol of fertility and birds that were assembled are symbol of climbing to the sky.

In the third layer of the Giyan hill animal motifs will be removed from the body of containers. Artist selects very simple decorations to containers. In some containers, along with horizontal lines of body draws concentric semicircles on the edge of the container. Beltway horizontal lines, triangles and hatches are from other motifs that can be seen on the containers (Fig. 14-19). During this period the artist does not attempt to symbolism on the containers.

In the second layer of the Giyan hill again we are seeing images of animals, especially birds. Dominant motifs on containers of this period are brilliant circles, bird, plaid levels, crisscross hatchings and triangles. Panels that have been filled with intersecting lines indicate agricultural lands. Rectangular levels that have been colored as checkered are a symbol for Earth.

Checkered levels are a symbol of conflict of opposite forces. Two forces that are standing against each



Fig. 15: Pottery cup discovered the third layer (Ghirshman and Contenau, 1935)



Fig. 16: Pottery leggy containers, discovered of the third layer (Ibid)



Fig. 17: Pottery handled drinker. Discovered the third layer, museum of ancient Iran (archive museum)

other for survival is to establish a certain person or the world. Square shape of the checkered level is a sign of war that has been started, this war may be a war of reason against instinct or a war of discipline against chaos or war a combination against other compound, the potential conflict for destiny. Checkered study is instead of



Fig. 18: Pottery leggy container, discovered of the third layer (Ghirshman and Contenau, 1935)



Fig. 19: Leggy pottery container, discovered the third layer (Ibid)

conflicts and wars (Jean, 1999). Excellence, spirit, soul, epiphany, air spirits, spirits of the dead, ascended into heaven, Ability to communicate with the deities or entry into highest degree of intuition, imagination are manifestations that Cooper says for the birds (Cooper, 2007)

Bird is symbol of hope, freedom, sky, wind, prophesy, messaging, reincarnation, soul, immortality, fertility, sun, divine nature of the spirit of life, hurry, growth. Disclosure of the secrets of the gods, protective of the knowledge tree, tree of life, killer of snake, The embodiment of fire, cloud, sun and lightning (Jobs, 1991). Bird is a symbol of the spirit. The kingdom world symbol is earth world against the snake. Birds are interpreted as lively symbols and embodied of divine freedom and possible freedom of the earth.

Birds within square frames have been portrayed as consecutive in pairs. Binary operation of imaging of animals has been merely because of decorated and a sign of the Manichaeism effects but also all the animals that have been interpreted in this way have a kind of symbolic

bipolar. Means that they are also both a symbol of good and evil and with this binary image with bidirectional binder has been emphasized on this symbol. These binary images are likely to sign of two aspects of living organisms, Cooper knows the second as duality, diversity, conflict, affiliation, otherness, stationary. It also embodies of balance, stillness, reflection, the opposite poles the dual nature of man and lust, all of which have been manifested in duality and opposites. Two animals with identical symbols, even if they are from two different types are embodies the binary strength (Cooper, 2007).

As Cooper says the circle is the central point and the brilliant circle is sun symbol. It can be seen much on the containers. Sun is heat and light and life source. Its radius is shoulder of heavenly or spiritual effects that reach to the ground. Symbol of life, heat of the day, light, power and are all the things that is radiant. Circle is sign of the sun and radiations are solar radiations.

The sun means to cosmic almighty power clear sighted God and its power the manifestation of God, existence residing in the heart of the center of the universe and intuitive knowledge the world's eyes and the day eyes is impregnability. ... Sun is symbol life, death and revitalization after death. According to Jean Knight the mountain is drawn for an isosceles triangle. Therefore, the triangles that can be seen in containers of this period indicate the mountain.

The mountain has had significance in several religious from the earlier times. In the legends related to creation, know the mountain as first creature. Mountain in the first nations has been guardian and the source of life force and with force production and with source of life and symbol of fertility and abundance (Upham, 2001). mountain is highest, vertical and static for this reason its symbolism is near to sky and is common with heaven symbolism. Mountain is confluence of heaven and earth gods and the end of human ascension position. The mountain is sign of backbone, immutable and sometimes purity. Mountain is concentric and coaxial in the world. The mountain is place of gods and climbing it is like of ascension to heaven. The mountain is as a vehicle for entry to the position of deity and as a return to the origin (Jean, 1999).

"Mountain is the highest point of land that has accepted role of central Peak of Paradise crosses position of the clouds of heaven and earth reaching to top pick, as a central symbol to the meaning of the passage from one stage to the other and sit with god. The mountain is enduring, eternity, strength and rest symbol" (Cooper, 2007). Thus, checkered levels and hatching of earth symbol, the symbol of the sun circles, triangles symbol of the mountain and bird is symbol of the sky (Fig. 20-23).



Fig. 20: Pottery in the shape of glass, discovered of the second layer. Museum of ancient Iran (archive museum)



Fig. 21: Buff color pottery, discovered of the second layer, museum of ancient Iran (archive museum)



Fig. 22: Cream-colored pottery, discovered of the second layer, museum of ancient Iran (archive museum)



Fig. 23: Buff-colored pottery, discovered of the second layer, museum of ancient Iran (archive museum)



Fig. 24: Pottery cup handled discovered of the first layer (Ghirshman and Contenau, 1935)



Fig. 25: Leggy pottery, discovered of the first layer, museum of ancient Iran (writer)

The first layer of Giyan hill at the end of second millennium the containers are often without design. And those few that have design have apparently remained of the second layer (Fig. 24-26).



Fig. 26: Leggy and handled pottery, discovered of the first layer (Ghirshman and Contenau, 1935)

RESULTS AND DISCUSSION

Analysis: Studies have shown that in the fourth millennium BC in Giyan in the fifth layer containers form is simple and upper part was painted usually. At goat the same time has appeared on the potteries of elsewhere has played an important role in providing food and survival. We also know that horned animals belonged to moon at the beginning and horns exaggerated and crescent-shaped of the goat is a reason for this claim. The wavy lines is a symbol of water. Water plays an important role in his life and he knew moon as a reason for rainfall and fertility. Goat in his symbolic presence in this period has been portrayed alone. It also suggests his relationship with worship of the moon that has offered the artist of goat as a sacrifice to the god presence. So, people in this period began to worship the moon. People living in the fourth layer were believed to the spirit and continue to life after death because along with the dead containers containing food and drink was burying. Most of the time containers are crocks that upper part of them is painted. Design of bird-shoulder that is specific to this Giyan hill layer is designed on most containers. In this period, he worships the divine that is cause of her arrival to perfection. He wants to communicate with the gods and with the birds that reach to sky has been portrayed your mentality. In the third period of Giyan it seems that potteries have more daily use aspect and he did not try to symbolism on potteries. Earth and sun symbols on the containers of the period is the dominant, design of birds that have been portrayed sometimes in the sky and sometimes in the earth is a symbol of the link between heaven and earth. Giyan of first period is not seen any character in potteries motifs and is empty from symbolism.

CONCLUSION

We conclude from this study that we see symbolic designs in the fifth, fourth and second hills. Symbols of the moon, sun, earth, sky, water in total are present in the hills. They worshiped the moon in the fifth millennium. In the early third millennium their attention is more to the soul and itself and tries to achieve perfection in the afterlife. In the second half of third millennium, it seems the inhabitants of this hill were lost their belief in the afterlife that there was at the beginning of this millennium. Containers of this period were decorated very simple. In the second millennium in this hill the communication extends to other regions. Potter again began to symbolism. Effects of other designs of regions are seen during this period. But the containers have been found in the graves have unity in design. Man of this period has paid great attention to the earth and the sun. The idea of Indo-European residents who have been come into the area at this time, in the last period of residence in the Giyan hill we are seeing a lot of containers but the containers are without design. Also varieties of containers have been made as a result of communication with other regions. Probably making potteries in large number has taken opportunity of symbolism from potter.

REFERENCES

Alfred, H., 2011. Symbol, Ali, Peaceful. 12th Edn., Endowments Publisher, Tehran, Iran.

Cooper, J.C., 2007. Illustrated Dictionary of Traditional Symbols. Nashr-e-Nou Publication, Tehran, Iran.

Ghirshman, R. and G. Contenau, 1935. [Excavations of Tepe_Giyan near Nehavend]. Geuthner Paul Societe Nouvelle Librairie Orientaliste, Paris, French, (In French).

Jean, K., 1999. Cultural Symbols. Vol. 1, Oxus Press, Tehran, Iran.

Jobs, G., 1991. Symbols/First Book of Beasts. 1st Edn., University of Tehran Press, Tehran, Iran.

Louis, V., 2008. The Archaeology of Ancient Persia (Translated by B. Jesus). 3rd Edn., Tehran University, Tehran, Iran.

Roman, G., 2009. Iran, from Start to Islam, Muhammad. 19th Edn., Scientific and Cultural Organization, Tehran, Iran.

Roman, G., 2010. Kashan Silk the Oldest Human Settlement in the Plateau (Translated by: A. Karimi and Azita Hmpartyan). Mursal Publisher, Kashan, Iran.

- Samadi, M., 2004. Moon in the Earliest Days of the Advent of Islam. 2nd Edn., Scientific and Cultural Organization, Tehran, Iran.
- Seifallah, K., 2000. Pottery and Ceramics in Iran since the Beginning of the Neolithic to Modern Times. Phoenix Publishing House, Inc., Tehran, Iran.
- Upham, P.A., 2001. Masterpieces of Art in Iran (Translated by: Parviz Natel Khanry). Scientific and Cultural Organization, Tehran, Iran.
- Yousef, K.M., 2000. A History of Pottery and Ceramics in Iran. Breeze Publisher, Tehran, Iran.
- Zia'pur, J., 1979. Ornamental Designs in Iran from Antiquity to the Median Period. Department of Culture and the Arts, Tehran, Iran.