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Dear Readers,

I, on behalf of the editorial board, am proud to present this issue of the *International Journal of Applied Arts Studies (IJAPAS)* under the sponsorship of the Islamic Azad University, Yazd Branch. We were driven to found the *IJAPAS* by a noticeable lack of journals, in the Islamic Republic of Iran in particular, devoted to architecture, urban design, urban planning, architectural conservation and restoration, painting, art history, graphic, digital arts, fashion design, performing art, industrial design, aesthetics and semantics. Although the academic world is increasingly driven by cross-disciplinary visions and models, we seek multi-disciplinary views, an attempt to inform researchers, graduate students, and professionals about the trends, ideas and innovations being put forward in applied arts. To this end, in addition to standard articles, in every volume of the *IJAPAS* we hope to provide a special issue related to a respective field with innovation.

We are also sending out a call for papers related to *Applied Arts* to appear in the next issue of *IJAPAS* in Feb – Mar 2019. The deadline for submissions for this issue is Jan 31, 2019.

Finally, I should mention that we are committed to a speedy refereeing process for every article submitted to us. We effort to reply to all papers submitted within five weeks' time with a response about acceptance or rejection. We also do not require formatting for submissions in our style until *after* the paper has been accepted by us for publication.

I would like to thank our Editorial Board for their work so far in helping to establish the *IJAPAS*. And, finally, I would like to extend my deepest gratitude to Dr. Ali Bolor, the assistant editor of the *IJAPAS*, for all of his hard work to ensure the timely completion of the issue.

I am delighted to invite you to visit us at [www.ijapas.org](http://www.ijapas.org).

Sincerely,



Dr. Abolfazl Davodi Roknabadi

Editor-in-Chief

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## Graphic Design Values in Educational Gaming Cards

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### Abstract

In history, games have always been there and companion of children and youth. Today, ancient traditional and education games have been forgotten and replaced by destructive computer games. Card games are among the traditional tools that can be used for educational purposes. This article seeks to introduce the process of producing and innovative product called CARTIN and answers to the question regarding the key characteristics of the graphic values of educational card games. The aim of this research is to present a suitable graphical approach for the development of the cards by considering the graphic fundamentals and standardization with respect to wide space and its popularity in the community. The study is practical and conducted with a descriptive-analytical method. The data collection is through library and field survey. The appearance, new design, innovative graphic and packaging materials are significant. Using warm, happy, lively, transparent and bright colors along with appropriate logotypes will be beneficial in organizational identity. Suitable size for the card has been 9 by 5.7 cm and 250 grams glossy cardboard material with a UV cover.

**Keywords:** Graphic design values; Educational playing card; Graphic; CARTIN

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### 1. Introduction

Parent's perpetual concern has always been to fill the leisure time of children and adolescent. Nowadays, due to existing framework in urban life one sees more of computer games as recreation. Computer games despite of their advantages it also has disadvantages such as addiction to these technological tools, reduced physical mobility, social isolation, and limiting the opportunities for investigation and exploration in the environment. To improve the situation it is recommended to use traditional games due to no need for expensive tools, creation of base for familiarity with

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universal rules and creation of social interaction. In this regard, it is possible to refer to gaming card which, since long-time been considered by various groups of society, especially the age group of B and C.

Educational gaming cards includes a set of cards containing information such as words and numbers that maybe written on one side or both side of the card. On educational card, one can write words, history, events, formulas and anything that can be played in form of question and answers. The educational gaming card can be extensively used for learning exercises to help in memorizing by repeating method. The most important option in gaming card is the attractiveness of the game along with education. According to the available resources, number of studies has been conducted in the field of games, toys, education and graphics; but no comprehensive research or thesis has been conducted on the values of graphic design in educational gaming card.

Using graphical values in designing educational gaming card can create a lasting effect is the attractiveness to the audience and visually distinguishes it from other games. The issue that, what values of graphic design is effective in making the gaming cards more attractive has always been a question in the design and production of these words. Today, one witness the reopening of gaming cards by unskilled people resulting in poor quality work. Audience due to lack of attractiveness of the subject and graphic design does not welcome this type of gaming cards. Ultimately it leads to bankruptcy of the manufacturer and eliminates this fascinating educational topic. The purpose of this study is to provide suitable graphic approaches for production of these cards, taking into account the graphic fundamental and standardizing the subject, due to its widespread popularity among the audience, graphic designers, instructors, students, entrepreneurs and publishers. After presenting the research method and presenting the defects of products in the Iranian market, the gaming card design features are presented. Finally, case study on CARTIN brand product has been introduced.

## 2. Literature Review

The word “game” used by general public includes concepts such as sport games, gambling, chess and betting. In public games there are two players and each tries to win, but the result maybe winner, lose or draw. In the game theory, game is defined as an interaction in which there is a decision between the parties of dependence. An environment in which an impact and mutual reaction is present among the decisions of individuals called as strategic environment. Each decision maker in the strategic environment is called as ‘player’. In each game with different ratios, luck, skill and strategy are involved. Strategy is also a mental and brain skill to play well (Abdoli, 2016: 2). The game has five characteristics that includes stimulation from within the individual, free choice, enjoyment and reality; also player are actively involved (Hughes, 2014: 15).

The game for children is important, because unlike adults, whose usual communication style is verbally, the communication method for children and youth is playing and activity (Hughes, 2014: 7). When playing children and teenagers release their energy preparing for the task in their life, to achieve difficult goals and reduce their weakness. They establish a physical contact, release their needs in competition and learn to come to terms with others. Playing helps this age group to free their imagination, learn their culture; and expand their skills. While playing children express their characteristics and take help from internal resources that can be integrated with their personality.

One of the tools that can help children and teenagers in the above mentioned field is the gaming card. In the 19th century, Chinese currency was considered to be the first game card. During Renaissance, the gaming industry was formed in the south Germany. In 1800, Americans began to make cards with interesting inventions. Before customization of gaming cards in today’s method in



Iran, a kind of gaming card called Ganjefa and Asnas become customary in Iran and most likely was created in the 16th century during Safavid court and then to India. Nowadays, these cards are not used. It is said that Ganjefa was similar to seven hand game and Asenas as poker game. Before the evolution of computers as that in the 60s in Iran; witness the design and production of educational gaming cards. Gaming cards with subjects like cars, airplanes, football team, with respect to their time and facilities had fairly good graphics and print; which became popular in the community.

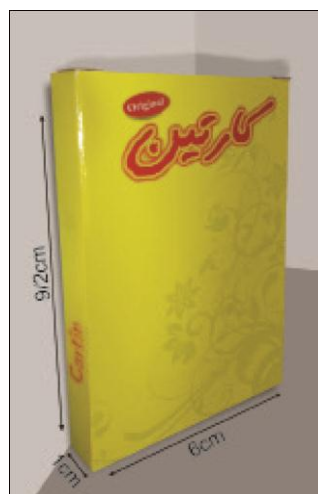
### 3. Research Method

This research in terms of goal is an applied research with descriptive-analytical method. The data collection has been done through library and field survey. The tools used for data collection is based on non-probable sampling of the qualitative and quantitative variables using observation card. The data is analyzed visually and content. The statistical population is the educational gaming card of the age group B and C; and with random sampling technique. With respect to the study of country products the research is considered as a case study.

### 4. Case Study

The visual solution and the benefit of graphic design values are presented in the educational gaming card in the design of an innovative product. The aim of the study is to use the historical background and field study and benefiting from the graphic features. The game card with 'CARTIN' brand with the title 'Continent and cities of Iran', which is one of the lessons of the age group of B and C as the design subject. The CARTIN name was chosen because in terms of meaning and easy pronounce, so that it can be recorded with the passage of time. In Persian dictionary of Moein, the term 'card' means a thin card on which someone's profile has been written or drawn; and in Dehkhoda dictionary it refers directly to gaming cards such as Ganjefa.

The card size with respect to 50 by 70 cm cutout and also the edge of work and print register and color calibration at the top of the work considered as 9 by 5.7 cm. With this cut, allows the assembly of 60 cards on the 50 by 60 cm sheet. The extended box according to the card size is 1 by 6 by 9.2 cm. Finally, after gluing and cutting, a box with length of 6 cm, width 1 cm and 9.2 cm height (Fig 1).



**Fig 1** Dimension of CARTIN box (source: author)

Template and conceptual colors are used to design the card box. This means that for European continent the green color, Asian continent is yellow, for African continent is black, American continent is red color have been considered so that these colors are color symbol of the continents and the Iranian cities are shown in turquoise color, where this color is used for tiling purpose in Iranian mosques known as the Iranian color symbol.

In card design, one side of the card has the country flag and in the package of Iranian cities a color picture of most famous sightseen place, history or religion of the respective city and backside of the card, the geographical location of the city on top of the frame with city or country name in “Yekta tu Khali” Farsi font style as dotted line below the map and in Times Roman font in English on the left side of the card.

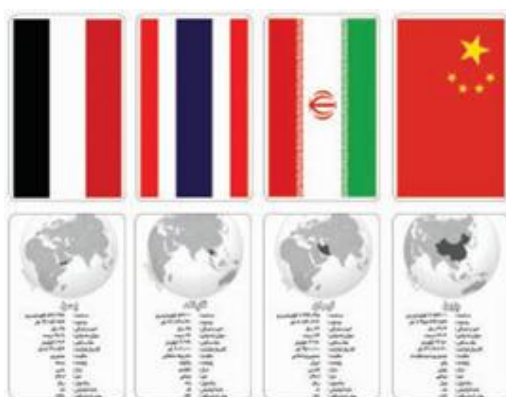
Geographical information, statistical and characteristic as game indicators are designed in the lower half of the frame with ‘Thin Khorramshahr’ font as column and centered. In this case attempt is made that the design with ten commands ‘Deterom’. The tenth command consist of good design, design at the lowest possible level. The Fig 2 to Fig 11 is examples of card design and boxes of collection of educational gaming card CARTIN.



**Fig 2** American continent implement plan (CARTIN)



**Fig 3** American continent box executive design (CARTIN)



**Fig 4** Asian continent card design plan (CARTIN)



**Fig 5** Asian continent box design plan (CARTIN)



**Fig 6** European continent card design plan (CARTIN)



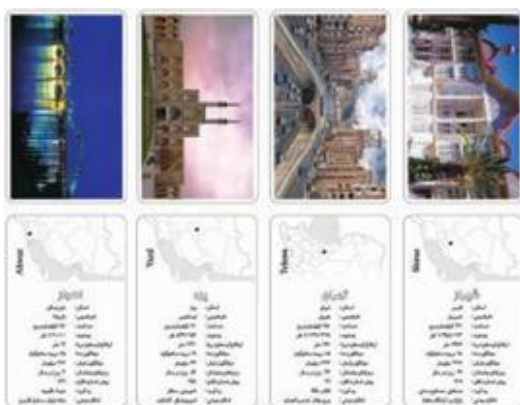
**Fig 7** European continent box design plan (CARTIN)



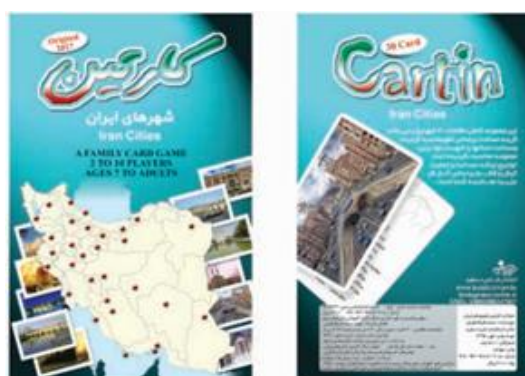
**Fig 8** Asian continent card design plan (CARTIN)



**Fig 9** Asian continent box design plan (CARTIN)



**Fig 10** Iran cities card design plan (CARTIN)



**Fig 11** Iran cities box design plan (CARTIN)

## 5. Discussion

### 5.1. Good Product Design Features

Educational gaming card have been used in recent decades. In Iran, there have been very few examples; among these cards are the playing cards sciences friendly from the science education publisher, visual educational gaming card (flash card) from the educational publisher and flash card from Gaj publisher. Based on field research, the present products in Iran market have disadvantages as expressed in weak points of the educational gaming card in Iran;

- Lack of brand and logotype use for the products
- Lack of use of interesting and entertaining topics
- Non-standard and large cards and packaging
- Failure in obeying the principles of game and concise content
- Not using energetic, playful and lively colors
- Not taking advantage of comprehensive visual identity among products with diverse subjects
- Not using printing and good material consumption
- Ignoring the details of product production

Diter Rams, has been the most influential designer of the present century, he has expressed design rules that are taught in all school of design. Since the quality of the design is not measurable accurately, he answers the questions of the rule as follows, whether my design is good? The Rams Golden Rules which known as The Ten commandment of Rams presented for designing the educational gaming card are:

Ten Commandments of Rams

1. Good design is creativity
2. Good design is efficient
3. Good design is beauty
4. Good design is perceptual
5. Good design is simple
6. Good design does not lie
7. Good design is everlasting
8. Good design is a set of integrated details
9. Good design is eco-friendly
10. Good design is design to the lowest possible limits

### 5.2. Graphic Corresponding to Educational Gaming Card

Nowadays, the graphic designer need to have proficient in principles and skills in creating adjectives such as attracting attention, continuous attention till message transmission, and participation of colors in the influence of the message and how to use the color in form, image and typeface. The most important secret of graphic art is to create harmony and balance between different factors of design in the direction to convey the content. The base of any graphic work and convey of idea is clearly relevant to associated audience. The designer must have full control over the aim of graphic work and its secret psychological message (Eisman, 2016: 7).

In all forms and nonverbal communication, color is one of the fastest ways to convey messages and meaning. To measure the effect of color, market is the best place. Market is where color plays the fundamental role in communication that is positive, attractive and its use for product is

inevitable. Often, color is referred to as a ‘silent vendor’ that should attract the customers at the first glance and convey the message about what the product is in which field and help to sell the product (Eismen, 2016: 10).

In designing the overall structure of card game, depending on the age group of the audience, should use warm, cheerful, lively and joyful colors; and if cool colors are used for the products it should be clear and bright. So that the contrast between the colors and easily observed. The warm, energetic and lively color communication with respect to type of product and age group of the audience are the best selection choice.

Today, packaging is designed in a way other than keeping and maintenance of the products also helps for maximum and quick sell, to an extent that it replaced the seller and with forms, roles, suitable colors and mentioning the necessary information about the goods on it answers the question of the purchaser (Afsharmohajer, 2015: 338). Packaging is the identification of a new product and its identity in the market. An identity that is permanent for many years and rarely changes takes place, because of its long life, coloring, packing geometry, design, product mark, product name and other factors that forms the packaging (Katoziyan, 1999: 7). In a shopping center or store, in the first place these packages are ones that talk and motivates the purchaser to buy the new product. More than anything, the quality and visual impact of packaging are of importance. Obviously, if the quality of the product is bad, but with attractive and impressive packaging, only the buyer is bullied and after that it is dissuades by the buyer to buy the product (Afsarmohajer, 2015: 339). In products like educational gaming card who’s audience are the children, effective packaging plays an important role in deceiving the audience and if the quality of the product is not acceptable in terms of the content, it affects more than once, unlike other products that the purchaser does not repeatedly gets deceive of the packaging. Therefore, aesthetic and attraction has greater influence on the sale and success of the goods. This issue includes three parts as follows; appearance shape or geometry of packing, the graphic design, and materials used.

One of the important factors in designing a particular identity or a common uniform used by the designers is the logotype. Logotype is a special name for product or company. In most products, logo is the first thing observed by the audience. The appropriate logotype for educational gaming card with regard to the age, location and environmental culture of the audience should be designed in a simple and legible manner. The title of packaging or logotype of a product is not alone judged by the viewer, but rather in the composition or surrounding space and the whole packaging shows its visual effect. The brand name of product is an important factor in its success and consequently shape that expresses this name has special importance. In the formation of brand product, the brand name of a product, how it is designed, color composition and how it is located in packaging is very effective.

A very important component of a brand or company image is its identity. In most cases, designing an organization identity takes place as a set of specific rules, with a focus on the visual elements used by the company. Usually, these special rules determine how to use the specified color palette, fonts, layouts, indices, etc. These rules maintain the coherence of the organization identity, so that brand recognizable and identified. The considered products attention has been given to this issue in the beginning of the design.

An important factor in determining the discontinuity of the gaming card is not wasting the printed form. That is, after printing there should be about half centimeter on each side to be cut. As a result, in each country, the size of the printed works is directly related to paper in the country. Another factor is the type of application of the work, the purpose and audience that is the cards

should be in such a way that the audience with small hand can simultaneously hold several cards in his/her hand and big or small size cards should be the reason of releasing the card from the hand.

Other than this two main factors for the discontinuation of the card, should mention to ISO 5 standards in A, B and C group. Most countries and all western countries use standard and desktop printers, scanners, Xerox and Fax machines are related. According to the materials stated, the appropriate cut for educational gaming card is 5.7 by 9 cm. The type of cardboard is 250 grams of glossy with UV covering. UV is the formation and stabilizing agent of color that dries with ultraviolet radiation, other than maintaining and long-lasting the color on the cardboard, it also gives polish and shine. Other than cardboard, another type of plastic and polymer is suitable for gaming cards, which has been known as PVC cards. The price of the raw materials as well as printing on PVC is not economical and the final price of the product is expensive. It is concluded that due to the purchasing power of the audience, the use of this material in producing educational gaming card has been excluded in Iran.

Graphic values with form, color and image, powerful and impressive designs, special methods for executing the image, illustration with new and creative techniques, new look at the line, level and volume according to the issue of gaming cards can achieve a successful and effective product. The feelings of designer creativity are important on choosing the appropriate method for the subject. Access to new and creative spaces is a factor to attract the audience; this method can also be used in illustration of design or image in gaming card associated to the subject of gaming card. Technically, the image should be in CMYK and 300 dpi resolution refinement of the color and then used for the design.

The small font letter description on the packaging should be legible with less row distance. In products where the subject is modern, it is better to have font style to be modernism; otherwise one of the usual thin font that is used in journals text. The information on the package in terms of words, arrangement, size and typeface should be presented to the audience in a way that instead of feeling of advertisement should induce the feeling of conveying information (Afsharmahajer, 2015: 397). In relation to the type and size letter font of cards, it is better to use the combination of fancy letters and modernism with thin letter size between 11 and 14 points depending on the age of the audience with large line spacing to be in proportion with the card size. Because of the difference in the grams of the cartoon (or package) and cards, different sizes and type of layout on the plate should use GTO printing machine and two leaf. The print size of GTO device is 35 by 50 cm and two-leaf device is 50 by 70 cm. Noticeable thing in producing gaming card is the way in which the cards are cut. Nowadays, due to the low cutting price by leather press, most of the products are cut in this way, but the biggest error of this machine is leaving behind cards with flat sides and without projection around the work, which is seen smaller and less in the Dickat Bobst machine, resulting in cards with flat sides and without projection which does not annoy the player hand while playing.

The graphic designer attention to these strategies in designing new game cards results in making the appearance of product much better. Creating visual diversity in the appearance of goods leads us to de-familiarization. The term was first developed by Victor Shklovskij in the article 'Art as a skill' and in the philosophy of formalism. At first, was related to distinguishing poetry verbally based on the awareness to form in literature (Crawford, 1984: 209). Later Jakobson and Titanof called it as alienation (Ahmadi, 2014: 47). Shklovskij expresses the purpose of art as the transfer of feelings through the unfamiliarity of objects, increasing difficulty and length of perception (Shklovskij, 1998: 16). Jakobson beliefs that defamiliarization has become a habit overtime and requires familiarization (Amoozadeh Lichaei and Saffari, 2015: 440). It is necessary to state that success in designing is examined according to the welcoming by the audience (Saffari et al., 2016:



15-18). Therefore, in cards, use of past forms that was previously considered as innovation is now repeated and a newer phenomenon has to be created to change the habits and audience to show more attention to the network. This makes it easier to percept it content. Attention to the content and audience is the design requirements that should be considered in their selection.

## 6. Conclusion

Game is a tool that children and teenager can be familiarized about the real world rules. The gaming card is one of the examples that because of the popularity among the audience in the community can regain its popularity. Attention to the structural and visual effects in designing gaming cards can play a major role in attracting audience and a serious rival for computer-based games. Attention to the value of graphic design in educational gaming cards, because the product appealing to the audience and growth of the sales-index. This accelerates the transfer of data with the traditional game in a modern way. Therefore, in packaging in relation to the age group, it is necessary to use warm, cheerful, lively and joyful colors. In fact, the combination of warm, energetic and happy is proportional with these products. The beauty and attractiveness of the package, is effective in its appearance or geometry, graphic design, and material used in selling the goods. The legibility and simplicity of the logotype, color and way it is placed in packaging is important. It is also necessary to design the organizational identity and to comply with all the products. The appropriate cut for the educational gaming card is 9 by 5.7 cm and its material is the 250 grams glossy card with UV covering. In the implementation of the image, the illustration with new and creative technique, new look at the line, surface and volume is effective in relation to the subject of the gaming cards. The combination of fancy letters and modern as thin font size 11 to 14 points and line spacing relatively large in proportion to the size of the cards. In printing, the type of packaging layout and cards on plate; a GTO printing device and two-leaf device must be used. The binding and way of cutting the cards must be with flat sides and without projection which does not hurt the player hand while playing.

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## Investigating the Architectural Motifs of Dowlatabad Garden in Yazd and Fathabad Garden in Kerman

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### Abstract

The Persian garden with a mansion and the water obtained from the qanat with the planting of flowers is in the form of a square or a rectangle. Examples of this type of garden are Dowlatabad garden in Yazd, which refers to the Zandieh period and Fathabad garden of Kerman, which was built during the Qajar period. The present study, using a descriptive-analytic method, investigated the architectural motifs of Dowlatabad garden of Yazd and Fathabad in Kerman. This study seeks to find the differences and similarities between the architectural motifs of these two complexes. The findings of the research show that geometric patterns are used as the basic and main drawings in the architecture of Dowlatabad Garden in Yazd. Geometric, plant, animal, human and such combination designs have also been used in the architecture of the Fathabad garden of Kerman. Geometric motifs are the common architectural designs in the two garden complexes.

**Keywords:** Dowlatabad Garden; Fathabad Garden; Iranian Garden; Motifs; SPSS

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### 1. Introduction

Iranian garden is the heavenly paradise for pleasure and peace as a work of art. The construction of the garden in Iran has taken place in accordance with the spiritual needs of mankind. The presence in the mansion of garden with motifs which are formed based on symbolic thoughts and impressions and its architecture are more tangible, that is associated with the history of the garden. Persistent gardens of ancient heritage in Iran were built with great attention of rulers and kings of that era, and they have valuable architecture with a treasure of decorative motifs, and artists try to use these eye-catching designs in architectural decoration in various ways. Among these gardens,

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the two garden complexes of Dowlatabad in Yazd and Fathabad in Kerman are not exception. The study of decorative motifs used in architectural decorations of Dowlatabad garden in Yazd and the architectural decoration of Fathabad garden in Kerman is the subject of this research. The main objective of this research is to find the differences and similarities of these architectural motifs on the two structures of Dowlatabad garden of Yazd and Fathabad in Kerman. Accordingly, this research seeks to answer the question of what kind of motifs are used in architectural decoration of two Dowlatabad gardens in Yazd and Fathabad in Kerman? The importance of examining the two above mentioned works are because of the examples of historical, state and residential buildings of the two near provinces of Yazd and Kerman. This article after studying the Persian garden as well as information about Dowlatabad garden of Yazd and Fathabad garden of Kerman, reviews the motifs related to the architecture of the two gardens.

## **2. Methodology**

This research has been done by descriptive-analytic and comparative approach. The gathering of the required information has been achieved through book reading and observation studies. Firstly, at the description stage, we introduce two complexes of Dowlatabad garden of Yazd and Fathabad in Kerman. Then the architectural motifs of these two gardens were analyzed and their similarities and differences were identified.

## **3. Meaning and Concepts of Keywords in the Research**

Soltanzadeh et al. (2014) in their book with the title of (Fathabad Garden Architectural History), were analyzed the motifs types of these decorations after identifying the decorations of the Fathabad mansion. Soltanzadeh (2007) in his research project titled (Fathabad garden) has examined Fathabad's garden complex in general. Khabiri (2014) in her book (Yazd from another glance) after defining the Dowlatabad garden introduces some of its architectural decorations. Bahadori (2008) in his book entitled 'Wind catcher, an Engineers masterpiece', reviewed the architecture of the Dowlatabad garden in Yazd, and has introduced the building based on geometric shapes.

### **3.1. Iranian Garden**

Gardening in Iran due to the particular climatic conditions, is more influenced by construction systems, especially irrigation systems, although sensory and aesthetic factors in later stages have a special role in gardening. The specific climatic and specific morale of Iranians have led them to become more functional in the field of architecture and gardening (Pourmand, 2011: 52). Until the last days of the Qajar era, or until the last days of traditional architecture in Iran, many gardens in Iran are being constructed, all of which are in the form of a space of four gardens and these continue the various designs of the ancient heavenly gardens, while it should be considered that the beliefs and culture of each period are the source of the culture and beliefs of the later periods (Danehdost, 2015: 179). The image of the Promised Paradise, formed from the earlier periods in the Iranian mind is imagination of the most beautiful and pleasant gardens of Iranians, which refer to the name of paradise in various gardens (Wilber, 2005: 41). By examining the rules of the Gestalt Psychology School, there are some hidden aspects in the design of the Iranian garden plan, which have been popular in the Iranian garden since time of Gestalt school birth. (Gholami Rostam et al., 2015).

### 3.2. Dowlatabad Garden Complex in Yazd

Dowlatabad garden was built on the orders of Mohammad Taqi Khan Bafqi, governor of Yazd. The beautiful wooden structures of the wind catcher, including the sash window with colored glass, were restored and beautifully renovated by Abbas Mojaver, the carpenter of the Technical Bureau of Preservation of Antiquities. The elegant facade of the vestibule roof is the work of master Haj Ali Akbar Akhond, architect of the cultural heritage organization, which has been masterfully done with wire and gypsum plaster. Architectural elements of Dowlatabad garden design is one of the most original and most innovative Iranian garden projects. The garden surface is divided into two sections with a rectangular environment with dimensions of 116 meters and 104 by 278 meters, which are perpendicular to each other. The larger rectangular environment means what the public knows as the garden of Dowlatabad, and it has formed the interior garden, which is in fact the private garden and family residence of Mohammad Taqi Khan. The smaller rectangle space on the north side defines the outer area of the garden. This garden, called the Paradise of Ethic, is the venue for state ritual and sporting events (Khabiri, 2014: 123). Javaherian quotes from Pourjafar: The garden with an area of over 40000 square meters is one of the most famous and beautiful gardens of the Zandieh era, which was built at the time of Karim Khan Zand.

Its main index is the highest octagonal wind catcher with a height of 33.8 meters, the world's tallest wind catcher. The garden consists of several main mansions including: Vestibule mansion including basin and wind catcher, pergola, paradise of ethic and mirror hall, southern porch and subsidiary building such as large stables, subterranean building and service, water storage (or reservoir), pantry, kitchen and well and water supply facilities, and is connected to the south by the aisle to the area under the wind catcher. The main facade mansion is the main building of the paradise of ethic gardens, which has two floors and consists of a chamber, a vestibule and a small room and a few aisles (Javaherian, 2004: 109). The architecture of this building refers to the Sassanid era and Khan tried to follow the design of the Ctesiphon in the design of the main building. This unique building marked the emergence of secular architecture and its importance in the non-religious city landscape (Modarres, 2014: 68). The most interesting building is the vestibule on the horizontal surface of the building, which is based on hexagonal or octagonal geometry. At the vertical level, the building is in two ways, with one and two floor height, with dome roof and central skylight, the flow of air and water is well integrated within the wind catcher, and the water flow in the garden forms the main design framework. (Bahadori, 2008: 233). Dowlatabad garden of Yazd is one of the great gardens of Iran similar to the garden of the Fin of Kashan and Shahzadeh Mahan garden. Water in the garden of Dowlatabad poses harshly. The architect has unevenly played with water into the ground and brought it out many times (Tavakoli et al., 2004: 47). The garden is considered as Iran's spectacular collections because of the art of distributing water and architectural design. Dowlatabad garden is irrigated from qanat, and the water flow in the garden forms the basis of its skeleton design (Afsharsistani, 1999: 127).

### 3.3. Fathabad Garden Complex in Kerman

Fathabad garden, located 25 km from Kerman, is one of the most important historical gardens in Kerman (Mehdinejad and Sadeghi Habibabad, 2015: 3). Fathabad garden is located at the end of the Northeast Frontier of Ekhtiar Abad and after the construction of the railway line Kerman-Zarand, it has been completely separated from Ekhtiar Abad (Soltanzadeh, 2007). The complex among the enclosed gardens of these lands was once the property of Fazlali Khan, the governor of Kerman, at the end of the Muhammad Shah Qajar period, and was irrigated by the qanat (Soltanzadeh et al.,

2014: 41). The oldest document that was found referring to the Fathabad garden is a plan dating back to 1859, in which Fathabad gardens are named. The construction period of which is related to the last decade of the 13th century and the first decade of the 14th century. In any case, the garden is famous for a few names. Including 1- Fazalikhan garden 2- Biglarbeigi garden 3-Garden of Hussein Ali Khan-Fathabad. But the people of Kerman know this garden as Fathabad at the height of the boom (Soltanzadeh et al., 2014: 41). The garden and mansion of Biglarbeigi in Fathabad is one of the historic gardens that its famous Qanat, once the old and famous Qanat of Kerman, has been supplying the garden water and its mansion. The main building of the northern end of the garden is constructed in two floors, and on the south side there is a rectangular south-north yard with two water ponds in the middle of the yard, whose ruins still remain about 30 meters from the east side of the main four-seasoned building, which is placed on a coherent and square floor plan (Mehdinejad and Sadeghi Habibabad, 2015: 3). This garden, with its architectural design, has a special beauty and is the pattern of the shahzade Mahan garden. An eye-catching facade, a magnificent vault, and a pond with fountains make the space pure (Golabzadeh, 2011: 178). The existence of distinctions with the Iranian garden pattern, along with the maintenance of its characteristics cause the distances of the Fathabad garden from the Iranian garden's pattern (Mansouripanah and Harandizadeh, 2016: 8). This garden is rectangular and is located with an approximate size of 260 by 440 meters, with an extension in the direction of southwest - northwest on an appropriate slope of the earth. There are subtleties and special features in the construction of the Fathabad garden. The main complex has two gardens, which are in U shape. The main building of the central mansion with two south wings forms the core of the complex. On the northern side of the main building, there was a superstructure in the shape of L (building and garden), which today is generally ruined (Khabazi and Malike, 2016: 3). Fathabad garden has been hosting various activities such as accommodation, outing, harvesting, holding ceremonies and celebrations, etc. (Soltanzadeh et al., 2014: 68). Fathabad garden represents a period of architectural boom, and especially is representing the decorative culture of the private gardens of that period in decorating, with all the strengths and weaknesses. Lack of scientific studies were carried out about the Fathabad garden, without any significant evidence, except a few photos of Skype, some references to historical books and aerial photographs. Restoration of the Fathabad garden of Kerman is, one of the most valuable and historic monuments left over from the Qajar era, the outstanding event that has recently been made with the cooperation and efforts of the state institutions of Kerman province, despite many problems such as the abandonment; and the desirable conditions are made the building to survive (Satari et al., 2017: 6).

#### **4. Architectural Motifs of Dowlatabad and Fathabad Garden**

In this section preliminary information about two complexes of Dowlatabad and Fathabad were studied. The architectural motifs on the two complexes are based on the motifs seen as: geometry, plant, animal, human, and combined designs. Fathabad garden of Kerman used motifs, which is a compilation of pre-Islamic and Moroccan and Ottoman periods, similar to other buildings of the Qajar. The influence of the Achaemenid and Sassanid motifs, and the Islamic period in the garden motifs is quite clear, and all these are combined with Western motifs (Soltanzadeh et al., 2014). Since the architecture of the Dowlatabad garden in Yazd dates back to the Sassanid period, and have followed the design of the ctespention in the design of the main mansion, so the influence of the Sassanid motifs has been used in both complexes. It should also be noted that geometric motifs are used in both complexes and animal, human and combination designs are seen in the Fathabat

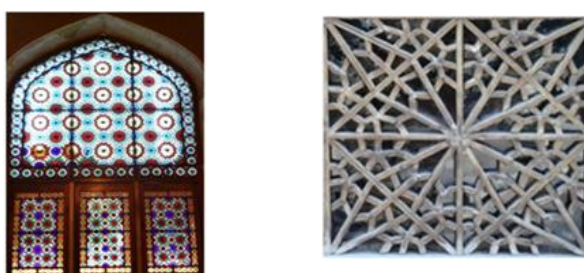
garden complex of Kerman and geometric motifs are seen as original and basic designs in the Dowlatabad garden of Yazd.

#### 4.1. Geometric Motifs

This group of motifs applies in both gardens. The decorative and repetitive geometric roles that have been created with complete accuracy and beauty in the works of Iranian architecture represent the Iranian knowledge of geometry and the familiarity of these people with geometric features and their scale and relations with each other. The geometric consciousness and the level of knowledge of ancient Iranian engineers and the knowledge of geometry can be clearly seen in their technical work.

The rich ancient tradition of Iranian geometry has survived in various ways, and artists and industry professionals have always implicitly shown their geometric knowledge in their artifacts. Geometric motifs are divided into two groups in their traditional arts: 1- Simple geometric 2- Nodes: This group is used more in traditional Iranian architecture, but it is not exclusive and there are also in other fields of traditional arts (Sharifzadeh, 2006: 3-5).

In the architectural decoration of the Dowlatabad garden in Yazd, geometric motifs as regular or irregular and the combination of these motifs, which have a unity and harmony between the components, and the volume, texture, rhythm and symmetrical equilibrium are crafted with wonderful idea and used in all decorations; including the wooden structures of the wind-catcher building and the colored glass wooden sash window (Fig 1).



**Fig 1** Sash window garden (Source: Author)

In the Fathabad garden of Kerman, some columns are decorated in the section of the gilly and in the upper part or the roof with curved components (altar plan) (Fig 2). A five-row floral semi-circle brick stairs are used only in the seat of the four-seasoned mansion (Soltanzadeh et al., 2014) (Fig 3).



**Fig 2** Altar plan (Source: Soltanzadeh et al., 2014)



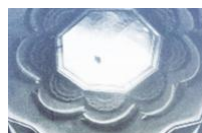
**Fig 3** Semi-circle brick stairs

## 4.2. Animal Motifs

This motif group has been used in the Fathabad garden of Kerman. Animal designs such as fish and birds (probably lapwing) can be seen (Fig 4). It seems that fish in the motif of this period, or designer's mind had a pivotal role. Considering that fishes are the symbols of the Mediterranean coastal civilizations and at the beginning of Christianity, they were the symbol of rituals of baptism as well as personality of Christ, and the effect of foreign motifs in the Fathabad garden is dominated by the foreign motifs (Fig 5).



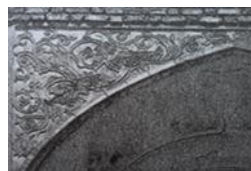
**Fig 4** Fish (Source: Soltanzadeh et al., 2014)



**Fig 5** Role of the bird (Source: Soltanzadeh et al., 2014)

## 4.3. Plant Motifs

This group is found in Fathabad garden of Kerman. In the southern facade behind the main entrance (two spaces) with decorations that are more like an Eslimi and an Andalusian fault, these decorations are influenced by carpets. Flowers like Shah Abbasi flowers and Laleh Abbasi have been used in these motifs, but the combination of these flowers with other parts was not common. (Fig 6) (Soltanzadeh, 2007).



**Fig 6** A painting like an Eslimi (Source: Soltanzadeh et al., 2014)

In other parts, the spheres on both sides of the built-in columns have used painting which has the ancient Iranian roots, such as the sun and the sun circle (astral) or locally so-called (wheel), but combining these motifs with certain flowers and leaves represent these design motifs as foreign design. The role of the circle of the sun, its main foundation is from a Broken Cross, related to the fourth millennium BC. The shape of a rectangle in the facade and in the center of which there is a sun and sunflower or a sun circle or azine of Golmihchi, and on either side there are flowers with shaped leaves that are like foreign forms (Fig 7). (Source: Soltanzadeh et al., 2014: 103).



**Fig 7** Rectangular shape of sun circle, flowers and leaves (Source: Soltanzadeh et al., 2014: 103)

The decorations cadres in addition to the cross have polygonal shapes or combinations with different curves. Considering the style, it is the foreign form, and most of the cadres have been scallop, half-flowered roses, or curves (Fig 8).



**Fig 8** Decoration cadres (Source: Soltanzadeh et al., 2014: 108)

#### 4.4. Human Motifs

This group is used in Fathabad garden of Kerman. One of the first rooms on the eastern side of the building which overlooks the four-seasoned mansion, decorated with paintings of hunting in the mountains and plains. These paintings are not of same size and are like paintings that were seen in Kashan's residential houses in the first half of the 14th century. The used color is a spectrum of brown. The background of painted landscapes are colored with navy blue. The existence of these paintings is probably another reason to bring the building closer to the late 13th and early 14th centuries (Soltanzadeh et al., 2014: 112) (Fig 9).

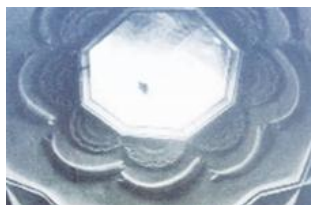


**Fig 9** Human motifs in mural painting (Source: Author)

#### 4.5. Combined Motifs







This group is used in Fathabad garden of Kerman. The decorative motifs inside the building are a combination of plant and geometry animal motifs that have been executed in crusaders and bergamot shape with rings and circles. Cross is one of the main forms of decorating the cadres. In the first mezzanine, and of course in the hallway, a special geometric shape has been used halfway around the skylight, consisting of central concentric circles that comprise the central form, and often made up of rose petals or different forms of fish (in the form of the margin).

The central role in most of these circular motifs is the circle of the Mehr, the Sun, or the star, which in some cases the circle is divided with drawing the radius. Sunflowers and many types of flower buds, cedar and flowers with petals have been used for decorative purposes. There are also real-shape fish in the middle of the motifs around the skylight, which may be reflective of the ponds that either exist or should be existed based on the minds of the artist in the plaster work (Fig 10). (Soltanzadeh et al., 2014: 106).



**Fig 10** Plant, animal and geometry motifs (Source: Soltanzadeh et al., 2014)

**Table 1** Geometry motifs (Dowlatabad garden of Yazd)



Decoration	Location	Motifs	Pictures
Wooden structure	Wind-catcher	Octagonal circular star with 8 wings, motifs with positive and negative space in the wind-catcher	 
	Part of the sash window of mansion	Diamond and multiple stars	
	Protective fence	Diamond and square	
Colored glasses	Sash window of the mansion	Diamond, circle and squares and multiple star	 




Framing with wire and gypsum plaster	Ceiling of vestibule in mansion	Circle, square, octagonal, solar diamond	
Plaster	Mansion niches	Angled and highlighted	
Brick	Architectural design of main mansion	Polygon	
	Guard tower	Combination of positive and negative space	
Marble	Pond in the mansion	Octagonal	

(Source: Author, 2017)





**Table 2** Geometric motifs (Fathabad garden of Kerman)

Decoration	Location	Motifs	Picture
Column	In the upper part of the roof	With curved components (altar plan)	
Brick	Brick stairs of Four-season mansion	Semi-circle, diamond	

Framing	The ceiling of vestibule of the mansion	Astral 18- and 12-sided continuous polygon	
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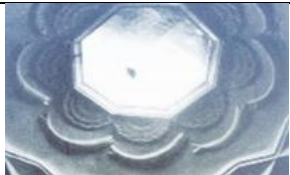
(Source: Soltanzadeh et al., 2014)

**Table 3** Plant motifs (Fathabad garden)

Decoration	Location	Motifs	Picture
Plaster	Southern and Eastern facades of the main mansion	Weak geometry	
	Rectangular shape in the façade	Plant, geometry	
	Frame inside the building	Plant, geometry	
Inscription	Main entrance	Plant, geometry with the phrase (God helps us and victory is close)	


(Source: Soltanzadeh et al., 2014)

**Table 4** Animal motif (Fathabad garden)

Decoration	Location	Motifs	Picture
Plaster	Façade	Bird(lapwing)	
	Around the vestibule skylight ceiling	Fish	




(Source: Soltanzadeh et al., 2014)

**Table 5** Human motifs (Fathabad garden in Kerman)

Decoration	Location	Motif	Picture
Painting on plaster	One of the first openings in the eastern part of the building	Human	

(Source: Author, 2016)

**Table 6** Combined motifs (Fathabad garden in Kerman)

Decoration	Location	Motifs	Picture
Framing	Vestibule ceiling of mansion	Geometric, animal (fish), plant	
Painting on plaster	One of the first openings in the eastern part of the building	Human, animal, plant	
Plaster	Façade	Animal(bird), plant, geometric	

(Source: Soltanzadeh et al., 2014)

## 5. Conclusion

Garden is a place for residential recreation, which has always been attended by people and rulers and artists. And looking at the historical documents of the popular Iranian gardens, they have the most beautiful decorative motifs attached to architecture. Therefore, the two Dowlatabad and Fathabad gardens are the result of the interest of artists from the Zandie and Qajar era to art in architecture. The two gardens have been studied in the area of architectural motifs based on the observed motifs, but the Fathabad garden of Kerman was an unknown and devastating phenomenon, with a few photographs attributed to Skye and few references in historical books and aerial photographs, there was no other significant evidence, and no serious scientific studies were done on it, and the garden was recently restored and renovated, and since it was distanced from the Iranian garden pattern and influenced by Western and foreign motifs and the architectural aspect of its architectural design, it has richness in the motifs associated with the architecture of the garden of Dowlatabad Yazd. The architectural elements of Dowlatabad garden is one of the most original and innovative projects in Iran's official gardens. The geometric designs are used in the decoration of Dowlatabad garden in Yazd. The Fathabad garden of Kerman is a product and representative of a period of architectural boom, and in particular represents the decorative culture of the private gardens of that period. Thus, the motifs have a variety of architectural forms that include geometric, plant, animal, human, combination, and also a combination of the motifs of the pre-Islamic and foreign period, and the effect of the Achaemenid, Sassanid and, to some extent, Islamic periods, is

combined with Western motifs in the garden designs. The findings of the research show that geometric motifs are common motifs which are related to the architecture between the two sites, but with this difference in geometric motifs played a major and independent role in the decorations of the architecture of the Dowlatabad garden of Yazd, but the geometric motifs in the decoration of Fathabad garden of Kerman is both independent and combined with other motifs. Since the Dowlatabad garden architecture dates back to the Sassanid and design of main mansion has followed the design of the Ctesiphon, so the influence of the Sassanid designs in both complexes has been used. Geometric motifs have been used as the basic and original designs in the architecture of Dowlatabad garden in Yazd. The geometry, plant, animal, human and combination designs have also been used in the architecture of the Fathabad garden of Kerman.

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## Recognition of Lubrication Workshop in Native Architecture (Case Study: Lubrication Workshop of Najafabad, Isfahan)

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### Abstract

One of the characteristics of a building in Iran is the diversity in the type of land use and its architecture which has a direct relationship with thinking, creativity and people's need. Lubrication workshop structure is part of the native heritage that meets the needs of people in the environmental condition of that time. However, a few studies have been conducted on the mode of operation and spatial structure recognition. The aim of the present research is to identify the characteristics, principles of the formation of spatial species and extraction of efficient elements which have been selected as a case study of Najafabad mines (i.e. lubrication workshop). Therefore, the spatial structure of the lubrication workshop was analyzed and compared, based on library studies and field observations via a descriptive-analytical method. The physical factors were analyzed by the existing maps, and the spatial structure of the case sample was extracted. It was found that the lubrication workshop has distinct and recognizable patterns, and according to space and organization of the functional space it follows a single pattern. Further research can provide a background for architectural design that like the past is responsive to the needs of people and can be implemented as a model for resuscitation of native architectural identity.

**Keywords:** Lubrication workshop; Physical; Najafabad; Native Architecture; Spatial Structure

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### 1. Introduction

The artistic creativity begins with human needs, capabilities and time technology. To create suitable form, the most important mechanism for creating artistic work is the attention to the spirit

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of the place, weather condition and available materials (Wagner, 1991: 88, quoted from article 2005: 54). Nowadays, lack of attention to lifestyle and loss of attractiveness, has led to the destruction of native pattern in architecture; that this category has been affective in the crisis of identity and quality of architecture.

One of the characteristic of the structure in Iran has been the diversity of the type of land use and its architecture which has direct relation with thought, creativity and needs of people. Lubrication workshop are heritage of the past because of the people needs for lighting and attempt to eliminate the darkness over the years there have been many ways and means for the need. One of the ways has been the use of oil extracted from seed oil for which lubrication workshop was established. The workshops are advanced with complex and interesting structure that has been considered as industrial building. Lubrication workshop in addition to oil and edible oil has played an important role in providing livestock feeds and agricultural fertilizers. In fact, the professional exercise is one of the most important professions and giving importance to light and brightness the lubrication workshop have been sacred and of special importance (Moradi, 2008: 18). But, due to the replacement of the engine over the animals and the industrialization, the lubrication workshop has lost its usage and very limited number is still operating and the remaining buildings are abandoned and are being ruined and destroyed. In the past, Najafabad was the epicenter for lubrication workshops having 12 workshops and among which just one is operating.

This profession and place is of architectural type that has been less known among the people, this is the reason which has caused the practice and lubrication workshop exposed to destruction. Analyzing these structures, identifying the factors shaping and influencing the form and spatial organization is based on the needs of people; and their culture has a significant role in the quality of today's architecture. Analyses of the form and understanding the relationship between the existing spaces in the physical structure is a science has been introduced as space syntax in architecture. Different spaces reflect the different manner of life of their users. Using space syntax method, can understand the cultural and social characteristics of its inhabitants that influences the formation of different spatial patterns (Hiller, 2007: 44). The present research, based on this theory has made an attempt to extract the differences and similarities existing in the spatial patterns used in the selected lubrication workshop. With this analysis one can see the fundamental values that exist in the principles of architecture and its performance.

Studies in the field of lubrication workshop have not been considered by the researchers as an independent structural species. The detail execution, the placement of spaces and other things has not reached the recognition stage. While, the lubrication workshop been a native heritage can give us deep and broad understanding of the history of architecture. As Rappaport says, history and architectural theory as traditional and common has focused on the study of well-known monuments. While such works are only small sections of the built architectural work at any time (Rapaport, 1996: 1). Generally, lubrication workshops are not valuable monuments, but are among those which are less visible but are of importance and have been studied.

The complete document about the lubrication workshop is the documentary produced by Hossieni. This documentary illustrates the way of extracting oil and part of the document has depicted the Najafabad lubrication workshop. Another book entitled, 'Anonymous ancient heritage: Lubrication workshop of Isfahan' by Beheshtian, describes the method of oil extraction by tools and devices of the workshop. It has also introduced the existing lubrication workshop and mentions the name of Najafabad lubrication workshop. In the travelogue entitled 'A journey to the court of king of Sahebgaran', by Henry Brogshen has introduced lubrication workshop as the main profession of the town people.

However, there is no mention about the spatial structure of the lubrication workshop, only through articles it has been discussed. The two articles written as ‘the sustainable heritage lubrication workshop’ by Jaffari and other which describes the space organization of lubrication workshop, their performance and characteristic of the sustainable architecture of the lubrication workshop. In another article entitled, ‘Recognition and analysis of architectural structure of traditional lubrication workshop’ by Abdollahi and co-authors has described about the structure related to lubrication workshop which has used case study of Shahi lubrication workshop. This study, analyses the lubrication workshop such as the spatial relation, component morphology, hierarchy, etc. The aim of the study is the analytical study of the spaces of Najafabad lubrication workshop that leads to new physical understanding of the workshop.

## **2. Methodology**

To conduct this research from the remaining five lubrication workshops in Najafabad only three has been selected and the other two is not selected because of access restriction and insufficient information. Therefore, after introducing the entire lubrication workshop; the data collection is through field observation and library documents which is through descriptive-analytical method. To study the physical factors according to the existing document of the three selected workshop and the sketch drawing of different spaces comparing with the existing maps, the spatial structure of the case samples was extracted.

## **3. Concept of Native Architecture**

Native architecture is an architecture that grows within the society and over time adapts itself with the social, climatic and technological conditions; and consistent with values, economic and cultural lifestyle that is productive. In summary, native architecture is an architecture by the people and not for the people. The architecture is native when it shows all the criteria related to the environment and the native context. This means, only within a particular society, using certain technology and special materials, the systems and laws of the social-cultural of that society is acceptable and recognizable (Damyar and Nari Qomi, 2012: 66).

## **4. History of Lubrication Workshop**

### **4.1. Lubrication Workshop in Persian Dictionary**

The name of lubrication workshop and its synonyms such as oil workshop, and oil mill have been repeated many times in vocabularies. In Dehkhoda dictionary, the lubrication workshop is referred as a place where extraction takes place or where grape extract or vegetable oil is obtained. The kiosk and lubrication workshop are referred to oil house for example to one who extracts oil from castor and sesame oil, etc., is called as oil extractor (Dehkhoda, 1998: 15-14-19).

### **4.2. History and Origin of Lubrication Workshop**

Oil production from vegetable seed and their use was since the ancient times, so that the olive seed oil has been very holy in the Jews religion. In holy Quran vegetable oil seed has been mentioned as olive oil. The Assyrians, Egyptian and Greek are also familiar with oil extraction skills (Jaffari Farsani et al., 2013: 3). Considering the historical and archaeological evidence of oil extraction was there in Iran since ancient times. The discovery of oil extraction during the

Achaemenid dynasty is seen in Sistan (ancient city of Dahanehgholaman which is 44 km from Zabul) (Damyar and Nari Qomi, 2012). During this historical period, sesame oil was exported to Egypt. The earliest means and device for oil extraction was a tool called “Choghangiri” (engraving) and it is through that this word was the same as oil extraction which was converted to engraving. This small device consists of two stones, one stone is larger with depth in the middle and at the bottom of which there is a hole, and the other stone is smaller that is place within the larger stone and it is moved by camel or cow; and this device only extracts castor oil and barley.

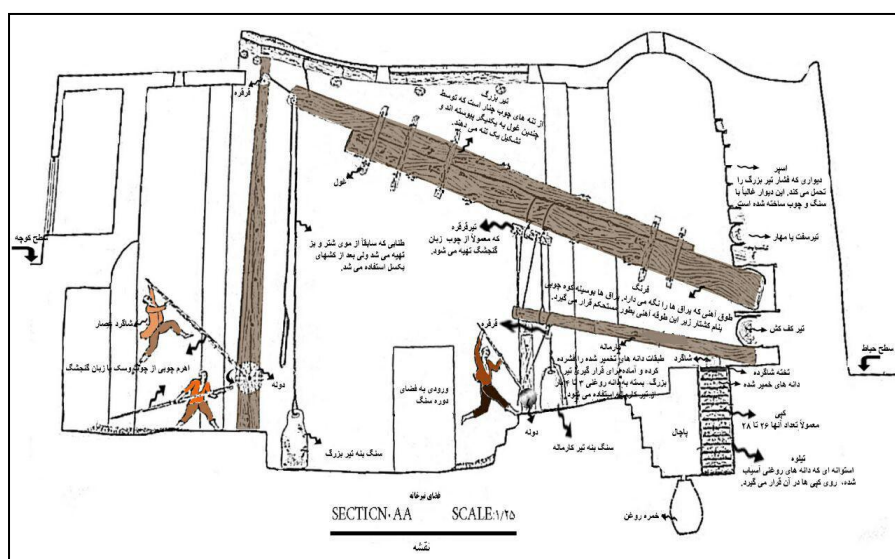
Over time, due to the growing need of people, oil workshop got more advanced which lead to the emergence of lubrication workshop (or refineries). Although the formation of lubrication workshop is related before the Safavid period, but during the Safavid period there was evolution of similar industries. The present quality of lubrication workshop in terms of the beam, stone, mills and kink has been related to before Safavid period, like the lubrication workshop street of Ghandilsazha in Dardast area and Sheikh Bahaei lubrication workshop in Jamaleh alley. During the Safavid period many lubrication workshops were built and therefore the construction of these industrial workshops was related to that period. But, based on these documents during the Safavid period, the existing samples were used as patterns for construction of the lubrication workshop such as Shahi and Shahzadegan lubrication workshop in Isfahan (Beheshtian, 1972: 8).

## 5. How Lubrication Workshop Operate

Initially, some oil seeds such as poppy burned in furnace with wood and charcoal and were crushed (milling) operation with stone mill. The stone was rolled out by camels and cows and the seeds were crushed and softened and with certain amount of water dough was made, after an hour of rotation of the stone the resulting dough was prepared for lubrication. The dough was poured on a tray called copy with a thickness of 60 cm and these copies were placed in a trench called ‘Tilveh’ about 32 to 37 copies were place above one another. In front of the ‘Tilveh’ there is a narrow duct that the end is connected to the kink (or borehole). Here the oiling operation begins. At the top of the ‘Tilveh’ there are wooden levers with 12 meter length and 60-70 cm thickness, the ends with rope and pulley which moves in up and down direction. At first, with a small beam named as ‘Karmael’ presses the copies to prepare the work for the large beam then several pieces of wood named as ‘Shagerdeh’ were placed above one another till under the large beam and then the large bean gradually lowered to press and extract oil. The person use to hang on the head of the wood to bring down the lever and push up the beam with the stone weight to the ceiling and thus pressing the seeds. It took a day for the oil to come out of the grains and then into the trench (Beheshtian, 1972: 13-18).

The remainder dough in the copies was used for animal feeding, soap manufacturing and preparing edible sweet named as ‘Takhtakh’ (Pirnia, 2008: 534).





**Fig 1** Manner of oil lubrication (source: Beheshtian, 1972)

### 5.1. Main Spaces of Lubrication Workshop

Lubrication workshop are vast and elevated building which are common in terms of structure and components, but has minor difference in the dimension and shape of the building. The lubrication workshop building is usually a two-story building built within the ground (Fig 2). The upper floor is the entrance and the lower floor is the most important part of lubrication. The lower floor consists of several small rooms, large rooms with dome roof. Generally, the building material was lime mortar and stone; and walls and ceiling were of straw and bricks. The dome roof had built-in windows. For the main part of the lubrication workshop a large hall was considered wider than other rooms. In the middle of this room a radius lesser than the room environment, a solid foundation of 1 m circular height was built. The other rooms of this building are the warehouse room for raw materials, the storage room for extracted oil, the resting room for the workers, stable for animals (Azimi, 2000: 105).



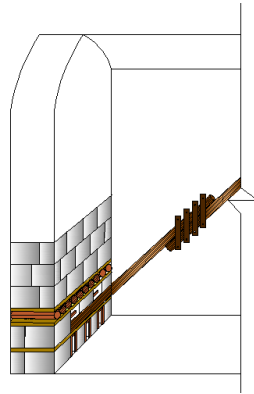
**Fig 2** Elevation of Moheballi lubrication workshop

The main components of the lubrication workshop are;

**Mill:** At the center of this space there is a grinding stone that is moved with the help of camel or mule, so that the oil seed are powdered and the roof is dome shape to keep the seeds cool. Usually, in each lubrication workshop with respect to its location there are 2-4 millstone, one of the stone is used for sowing the seeds and then transferred to another to be dough.

**Beam house (Hinges):** The main and most important stage of oil extraction is conducted in beam house or hinges. It is a rectangular space and due to the presence of long beams, its height is

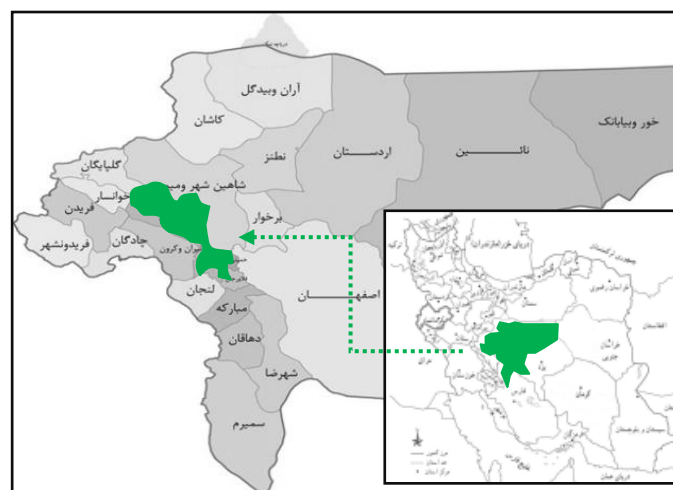
very tall till the ceiling and reaches to about 11 meters. To withstand the pressure of the beam, a sparrow wall was clamped with sturdy wooden coil and large stone with 3 meter width. This is called as the solid wall (because of this, the lubrication workshop was built underground to withstand the beams). The ceiling engaged with wooden beams has arched roof and its lighting was provided with the roof sunlight.



**Fig 3** Elevation of sparrow wall of beam house

## 6. Study Area

The city of Najafabad was built around 1022 AH along the Shah Abbas Safavid dynasty in a large plain of 29 km west of Isfahan (Yazdani Najafabadi, 2004: 44). The design and initial division of Najafabad which is based on the unique architecture and principles of urban design was carried out by Sheikh Bahaei during Shah Abbas I. The buildings and remains such as mosque, caravanserais, old castle, lubrication workshops, husseiniyeh are the resemblance of the ancient city (Yousefi, 2011: 1). Considering the agricultural situation, presence of gardens, shortage of fertilizers, need to provide night lighting was the first step to lay the foundation stone of the lubrication workshop by a clergy of the city of Najafabad which later reached to 12 lubrication workshops (Izadi, 2013: 28). Extraction and desalination were one of the most important occupations in the past of Najafabad.



**Fig 4** Map of Najafabad location in the province

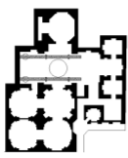
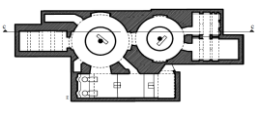
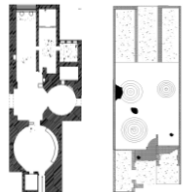
### 6.1. Lubrication Workshop Sample Studied

In the past there were 12 lubrication workshops in the city, but today it has reached to only five. According to the survey conducted and the available documents achieved by the architects and cultural heritage experts, three lubrication workshops are selected. In Fig 5, the building location and in Table 1, the general specification and plan are provided.



**Fig 5** Sample location on the map (source: googleearth.com)


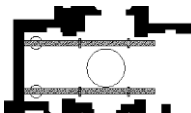
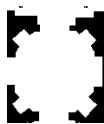


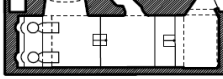
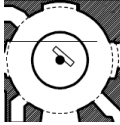
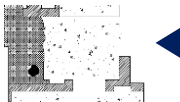


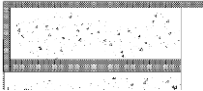




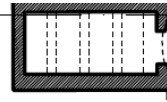


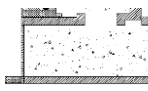

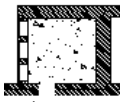

**Table 1** Specification of the studied lubrication workshop

Name of Lubrication Workshop	Construction Date	Architectural Specification	Floor Plan
Bozorg	Safavid	Biggest and the oldest lubrication workshop of the city has four mills and only beam house remains. The construction materials are straw and brick. The lighting is through the roof skylight	
Zamaniyan	Qajar	Two floors, the ground floor is a place for the workers to live. The part of the stable for camel and dock were ruined over time and construction has been done.	
Mohebali	Early Qajar	Has two floors, the workshop is on the basement and stable for camel and dock on the ground floor. The basement is the main part and goes to the heart of ground and covered with sand lined	

## 6.2. Study the Physical Sample

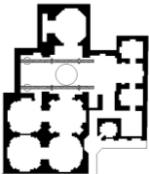
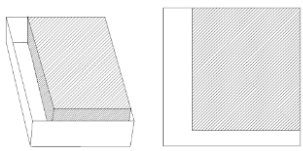
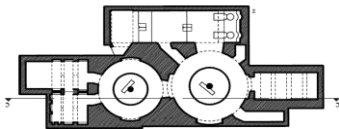
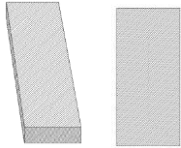
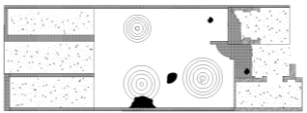
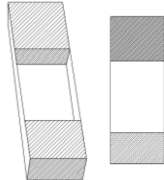
One of the ways for physical recognition is the analysis of the spatial structure and for this it is required to study and analyze every spatial part and its relationship and hierarchy of spaces. In this section, a comparative comparison of the classified properties related to shape and physical structure of each space will be carried out. In lubrication workshop, each space has a specific function; depending on the function it has a particular geometric form. Therefore, in all workshops, the shape of space is almost the same depending on the importance of the lubrication workshop the size of space is small or large. In Table 2, each component forms the space of the selected samples.

**Table 2** Morphological spatial component of lubrication workshop

Lubrication workshop name	Entrance	Beam house	Sowing	Camel stable
Bozorg				
Zamaniyan				Not recognized and construction been done
Moheballi				
Name	Grain discharge	Storage	Resting room	Incubator
Bozorg				
Zamaniyan	Construction has been done			
Moheballi				

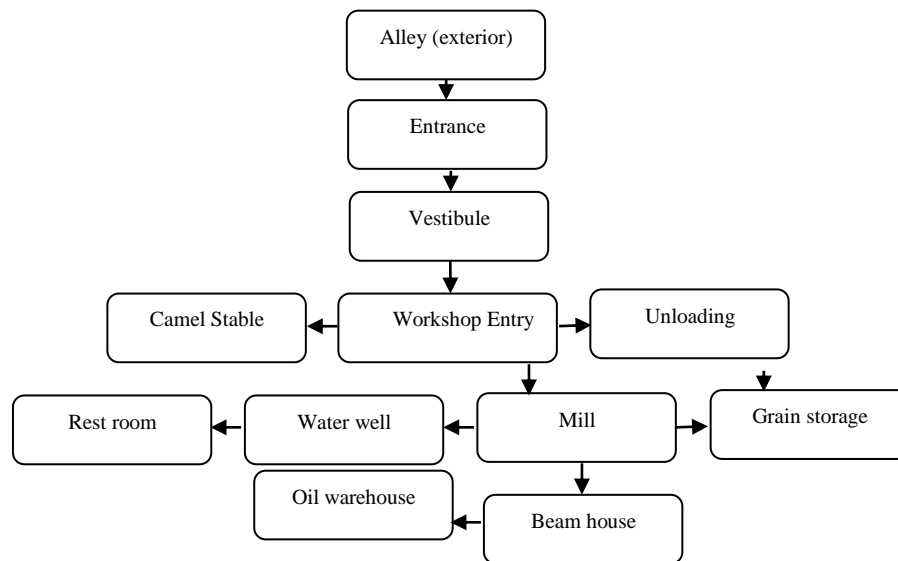
In Table 3, lubrication workshop has been studied according to shape and the positive and negative space ratio has been specified in each plan. Large percentage has been recognized as closed space and smaller part is open space. This open space is associated to camel stable. Therefore, because of closed plan and lacking visual communication with the surrounding environment reflects the emphases on the principle of introvert structure and space constraint.

**Table 3** Open and close space ratio

Lubrication workshop name	Structure floor plan	Ration of open and close space
Bozorg		
Zamaniyan		
Mohebali		

At each location, spaces based on type of performance and activities in a hierarchy are grouped together and are divided into three categories as general, private and semi-private. Because of the general function of the lubrication workshop, it is not possible to determine the private and semi-private spaces, but based on the location of beam house it can be classified in terms of its importance and spatial emphasis. In chart 1, it has been shown that the beam house (main part of the workshop) which is the last and most important stage of the lubrication workshop is located at the end of hierarchy. The more one gets towards the beam house it adds to the importance and emphasis the space. (In all lubrication workshops this hierarchy is similar, because of this reason it has been shown in chart 1).

In Table 4, various component of the plan are represented as symbolically in form of circle and way of communication between spaces as a line, so that the communication properties between spaces are displayed in a simplified way.



**Chart 1** Hierarchy and sequence of space

**Table 4** Space relationship chart




Bozorg lubrication workshop	Zamaniyan lubrication workshop	Moheballi lubrication workshop

By observing the plan studied in Table 5 and 6, it is concluded that the spaces around the mill and beam house without intermediate connection with the mill and beam house has direct relationship.

**Table 5** Study the relationship of beam house with the surrounding area

Boroz lubrication workshop	Zamaniyan lubrication workshop	Moheballi lubrication workshop

**Table 6** Studying the relationship of mill with surrounding area

Bozorg lubrication workshop	Zamaniyan lubrication workshop	Mohebbali lubrication workshop
		

## 7. Conclusion

The study aim was to analyze and compare the structure of the Najafabad lubrication workshops. The lubrication workshop despite of many similarities there are minor differences that affects the spatial relationship between the lubrication workshops. In order to achieve this goal, the space syntax technique and analysis has been used. According to research findings it is concluded that the lubrication workshop has distinct pattern and recognizable; and according to space and organization of function follows a single pattern and the only difference is the spatial relationship. Today, the principle of architecture and function of lubrication workshop can be used which does not mean the physical repetition and its function, because it meets the need of its time and it is useless to repeat it. But, it is only a mean to understand the principles and values. The principles mean that the Iranian architects have tried to preserve value and respect human being in space hierarchy. Today, due to employment at maximum level and weakening of spatial origin it is of less importance than the past. Hence, it can be used as a model for revival of native architecture identity.

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## Designing Fabric Promotional Gift (Case Study: Sewing Machine Manufacturer)

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### Abstract

The lack of supplies and complimentary products of factories is one of the problems that are being considered in today's world. The souvenir set designs for sewing machine factories can be a better approach for advertisement. Environmental protection is the duty of every human being. The earth is the home of humans and all individuals must be careful in environmental protection and spend their energy and income on green environment for the community. In this context, special promotions to develop a cultural background among people gains importance. In this paper, an attempt has been made to use a fabric base to design accessories and promotional gifts (or complimentary gifts) for sewing machine factories, which can both semantically relate to the factories' final product and be environmentally suitable. Accordingly, after conducting the examination, the designs related to the concept of factory products (e.g. form of yarn or needle) were made with reference to the research objectives, and initial sketches were drawn and printed on the cotton fabric via silk printing technique. The results revealed an improvement of concept transferred to the audience along with advertising and efficiency related to factory products. The designs were consistent with factory products and efforts were made to preserve the environment.

**Keywords:** Advertisement; Fabric; Complimentary Gift

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### 1. Introduction

Today it can be argued that graphic art is one of the most adverse art disciplines; because it has high artistic skills in different branches with different sections, that the artist with their interest and capabilities are attracted to one of these branches. Advertisement is one of the sub-categories of

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graphic art. Advertising has a role in raising the development of cultural, social and politics of a community. It is a profession that if it is addressed correctly, it has effective role in creating employment and new jobs (Betz, 1982). On the other hand, due to the creation of competition for people who are engaged in this field causes the growth of production, national industry and economic development, and increasing non-oil production. This issue helps for export because of its quality improvement. Advertisement as a huge industry includes various sciences such as psychology, anthropology, sociology, behaviorism, organizational management, economic, industrial management science which is related to production, packaging, graphic design, painting, accounting, etc., each has been important and effective in their respective application area (Pope, 1969; Berryman, 1984).

Today in the west, advertisement is referred in two-dimension. First is the advertisement known as 'propaganda' and is known as political and social advertisement. This type of advertisement has no commercial incentive or financial benefits and merely pursuit spiritual or political interests. Perhaps, can be referred as one of the most applicable and first field of advertising to promote religious thoughts. Another type is commercial advertisement or raising awareness (Rahimi, 2016). The term advertisement is an action in which a seller or manufacturer attempts to bring awareness to the buyer through the manufactured product; which is done in various ways. Based on studies done, there is no accurate information of the first sample of advertisement, but in general, advertisement has been divided into before and after the 15th century (invention of printing press by Gutenberg). Before this era, the advertising of goods and services were of three phase: Trademarks; Wall graffiti advertisement; City vendors (Azimi, 2009; Porter and Goodman, 2001).

In the middle age, high-end products were often hand crafted and adhered to the unwritten rules for elegance and beauty. This situation continued till the middle of the 18th century to a time when the industrial revolution jeopardized some of the equations. With the emergence of this revolution and promotion of machinery, the industry of European and United States moved towards mechanization. The mechanization goal was to manufacture more products. Therefore, with the abandonment of handmade products which are now replaced by machinery products, the importance of the advertisement was increased to attract the audience ([www.sanitizer.ir](http://www.sanitizer.ir)).

Whatever we know as new advertisement has its origins in the late 19th and 20th centuries in the United States. As it was felt that advertisement was necessary, therefore advertisement like many other customs entered into trade and business and developed gradually. In advertising history, Gutenberg published the 'Bible' and with the advent of printing industry gave rise to a massive revolution in advertisement. The olden day advertisement was simple in comparison with today's advertisement, but the main purpose of advertisement was awareness which is implemented today. This means that advertising is to create communication to convey information and ideas to a group of people that causes the change or enhancing their behavior (Azimi, 2009).

Today, with increasing advancement the advertising method has diversified and expanded to attract the audience, which includes print ads, radio, TV, phone calls, SMS, home screening, internet, email, promotional gifts, etc. [www.rasanew.com](http://www.rasanew.com). Another method to attract audience is to use complimentary gifts. The first creation and production of complimentary gifts was registered in the United States, which was related to George Washington election in 1989. In the early 19th century complimentary gifts such as ruler, calendars, tools and woodwork were common, but no organization had the creation of massive promotion for complimentary gifts (Hopper, 2010).

Jastermic a painter from Kusuckton, Ohio, once imagined being the founder of this industry. He was able to convince a shoe-store in his own country to produce painted boxes for keeping the books for local schools with the shoe-store name on it, which would be a type of advertising for the

shoe-seller. Henry Beach and Mike used this idea and began to sell promotional banners, calendars, aprons and hats. In 1904, twelve manufacturers of complimentary gifts decided to launch the first sales association for these products. This organization is known as the International Promotional Product Association (PPAI), which recently has more than 10,000 members worldwide ([www.manataz.com](http://www.manataz.com)).

In Iran, advertisement can be divided into two historical periods, the ancient period and new era. In ancient period the history of advertising dates to back centuries. During the reign of Khashaya Shah, magazines were published on leather and skin in which wars, victory, the statues of enemies, domestic news, such as trade, business and commerce were printed. The most important method for conveying information and awareness in Iran like other ancient countries were commercial symbols, wall writings and vendors. In new era, with the arrival of printing machine in Iran and publication of the first newspaper in the Qajar era, the commercial advertisement slowly found its way in the press. In general, advertisement in Iran's mass media started from wall writing and found its way to periodicals, books, cinema, radio and finally TV ([www.karafarinab.ir](http://www.karafarinab.ir)).

The first newspaper in Qajar era was published in a new method and adapted the version of the European style. Therefore, the experts of the Qajar period were known as the beginning of commercial advertisement and political propaganda in western approach. The first Iranian ad was published in one of the European newspaper. Abbas Mirza Nayeb al Sultaneh, the first Iranian citizen before the publication of the Iranian journal, ordered commercial advertisement to the European press. In the first Iranian magazine publication released at the time of Mohammad Shah had no commercial advertisement (Bahonar and Homayun, 2009).

The Vakaieye Etefaghiye newspaper was the first printed media in Iran turned towards commercial advertisement. This ad was published in the 6th issue of the first year newspaper, ordered by a foreign trader named Musio Rojiyari. In this way, commercial advertisement in Iranian press about 14 years after the country's first newspaper publication gained popularity with advertisement in the western press. The continuous publication of this newspaper attracted public attention to the subject of commercial advertisement and was officially recognized from the 22nd issue of the newspaper (Bahonar and Homayun, 2009).

In Iran, for introducing and conveying information about goods and services, various methods have been used from olden days to date. The most important among these are the stalls in traditional markets, the use of vendors, symbols and commercial symbols ([www.rafbillboard.ir](http://www.rafbillboard.ir)).

According to the definition in dictionaries of Omid and Moein complimentary is referred to free commodity as the original product, which is given in small dimension and in small quantity to the customers in order to advertise the main product. The use of complimentary in the Iranian economic market is not new. For example, over the years, the market merchants such as textile shopkeepers or grocery sellers offered a small amount of their commodity as complimentary gift to their customers (for example, rice or tea), this was because the customer ensured itself with the quality of goods and returned back to purchase more. In addition, this method is still used for certain business (such as nuts and pickles), newer methods have been developed to offer customers with complimentary gifts. In this method, complimentary gift is not offered as a sample before purchase, but given as a commemorative or a prize [www.sanitizer.ir](http://www.sanitizer.ir). Complimentary gifts in Iran are objects that on which logo or company brand is printed and provided to the customers, visitors and organization staff ([www.manataz.com](http://www.manataz.com)).

## 2. Discussion and Practical Work Process

In this paper, design was based on the nature of the sewing machine manufacturer and these designs were printed on the fabric base, to be used as advertising complimentary for sewing machine manufacturers. Accordingly, the design sketches are of yarn and needle form. The respective designs are of two types, the first type is made manually and the second type if designed by software.

### 2.1. First Type

The work base is with wooden glue and white plastic color. Then, with respect to the type of work the colors used are ecoline, water color, gouache and Vitra paste and each are separately defined.

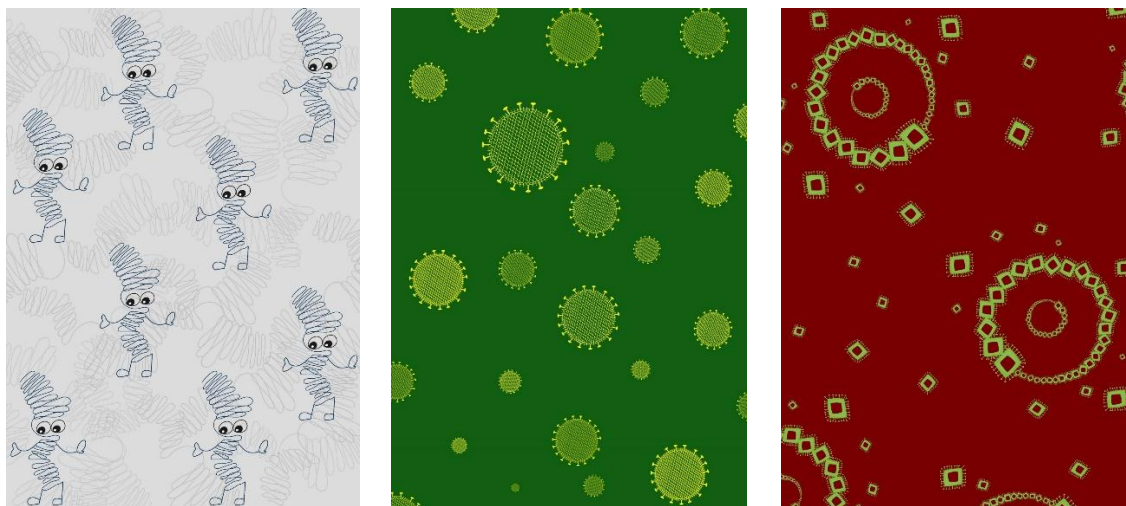


**Fig 1** Four created design of fabrics

- After the base is dried, the mixture of wooden glue and white color, and small amount of ecoline yellow color and golden gouache was applied to the canvas surface. All colors are not completely mixed with wooden glue and plastic color. Textures are created with a scraper. After drying, some areas have been used by ecoline yellow color, yellow watercolor and golden gouache color. Then with vitra paste dots were create on the work.
- After the base is dried, the mixture of wooden glue and white plastic color and small amount of green, blue, yellow and ecoline blue was applied to the canvas surface. All colors are not completely mixed. Textures are created with a scraper. At some places the colors are removed to make the white base prominent. After drying, dots are created in red gouache color.
- After the base is dried, the mixture of wooden glue, white plastic color and large amount is prepared and applied on the work. Some of the areas are removed by a scraper. After the work is completely dried, the empty spaces are painted with ecoline paint.
- The vitra paste is made of wooden glue material, white plastic color, green ecoline color and golden color. First, wooden glue and plastic color is made in large amount and applied on the fabric canvas. Then with a sharp pointed object texture are created in circular motion on the fabric. After the work is dried completely the entire work is brush washed and ecoline green color is poured at different areas. The work is moved in different direction so that the color spreads all over. After drying, vitra golden mixture has been applied for the desired dots to be created.

## 2.2. Second Type

Three works was created with Coral and Photoshop software. Initial design are drawn manually on paper and then implemented in Coral software and in Photoshop the color and final design was created.



**Fig 2** Designs of fabrics which used yarn motif

Finally, using the design created on cloths the set of accessories and complimentary gifts are designed. It should be noted that the design implemented with the final printed designs are different in terms of color contrast, which is due to the laboratory errors and lack of sufficient facilities for printing purpose. Therefore the designs presented in this paper are based on the above designs and the photographed items and quantitative photography differs in terms of color.





**Fig 3** Sample work key store

The Fig 8 is used as a bookmark for a book, that on one side is the key and on the other side is the booklet. The booklet can be used to note down the tailoring measurement or sewing tips.



**Fig 4** Sample work for embroidery

Special embroidery machine have different embroidery patterns. The handbook for embroidery has been a good option for the tailor (Fig 4).



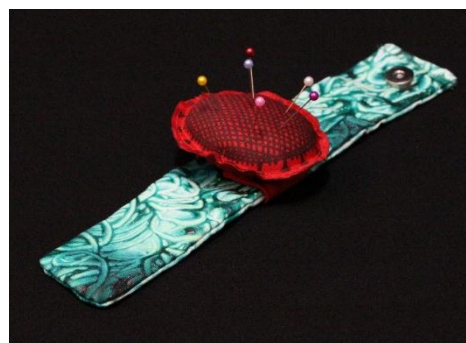
**Fig 5** Sample work of needle placement

The Fig 5 has been used as yarn. The inside part and body of the machine are used as needle placement. In the following examples, the photographs displayed it clearly.



**Fig 6** Sample work of needle holders

In this design the body of table lamp is wrapped with the cloth. Small cushions are used for needle holders.



**Fig 7** Sample work of needle holder

This design displays a wristband needle holder for the needles.



**Fig 8** Sample work of notebook

The notebook is used to keep the sewing tools. At the end of the notebook a booklet is there which is used for taking down the notes.



**Fig 9** Sample work of needle placement

The referred sample has the efficiency of sample number 5 and the fabric design is different.





**Fig 10** Sample work of cushions and bag

The cushions are offered for tailors suffering with back pain.



**Fig 11** Sample work of bag

Double-sided bag with two different designs which can be used for carrying the sewing accessories.

### 3. Conclusion

In this paper, an attempt was made to use the fabric material that is environmentally compatible and as a base for advertisement. Therefore, factories manufacturing sewing machine are considered as case samples. The elements of yarn and fabric are used for designing; and cotton fabrics that are environmentally compatible have been used as base for advertising. Finally, designs developed for sewing and application and accessories and complimentary gifts of sewing machine manufacturers were designed and presented related to the factory products.

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## Study of Symbolic Aspects of Animal Designs in Jiroft Civilization

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### Abstract

So far, few theoretical studies and art reviews have been conducted on animal designs, and no such research has been done on Jiroft's civilization. The reason for choosing this civilization is its importance in pre-Iranian art, as well as the health and availability of the works of this civilization period. This study tried to study motifs, to recognize the origin and meaning of them, to trace the cultural influences of their respective civilizations, and to analyze their symbolic aspects. The main question of this research is what kind of symbols and signs within the field of animal drawings are used in the works of Jiroft civilization, and what concepts and themes they represent. The purpose of this study is to achieve a more cognitive understanding of the symbolic aspects of animal designs of the works of Jiroft civilization. This study was conducted descriptively and analytically using library resources. In this study, ten works found in Jiroft civilization were investigated, and the results showed that in Jiroft containers, motifs represent a man of war with the hard nature of southeastern Iran. In these designs, the notion of duality, or dualism, and dual composition are very evident, which are signs of dual similarities and an opposite duality. These two-dimensional repetitions with the same materials represent an emphasis on a symbolic concept such as power or importance to them.

**Keywords:** Jiroft Civilization; Artifacts; Animal Design; Decorations; Symbolic Faces

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## 1. Introduction

Of the objects found in the civilization of Jiroft, about half of them are decorated with high-quality, painted, or painted engravings, the role of which of their ornaments is animal, human, plant, geometric and combination Forms (Majidzadeh, 2004: 13). Every object or image created by man comes from one intention that may be due to a vital need or emotional and spiritual needs, and a cognitive approach can be found, and it is possible to investigate the roots of these motifs with a closer examination.

Civilizations have identified the myths and symbols of their way of life for the transmission of their inner message, and when they transcend themselves and around them, the natural forces also have symbols and characteristics. So far, research on this civilization has not been carried out especially in terms of the symbolic aspects of motifs, and thus the origin and origin of the designs of this civilization have not been identified. While the works obtained from this region, especially the stone works and pottery are considered as an ancient treasure in the world. Hence, in this research, the Jiroft civilizations have been studied using symbolic visual analysis.

## 2. Research Background

Zainab Asadi (2013) studied the graphic structure of Jiroft civilization objects in "Reviewing the graphic structure in the designs of the objects of Jiroft civilization". He concludes that the motifs have a mythic aspect and a less functional aspect, in the designs of these dishes, in many cases; artists have been very loyal to nature in describing the structure of domestic animals.

Elaheh Feyzi Moghadam (2013) compares the designs of these two civilizations in terms of visual values and the relation between their designs and their contemporary civilizations in the "visual examination and comparative comparison of the motifs of Jiroft civilization and the motifs of Ilam civilization".

Mohammad Etehadia Nia (2013), in a comparative study of artwork in the civilization of Shahre-e Sokhte and Jiroft, concluded that both Shahre-e Sokhte and Jiroft civilizations in the production of works of art used similar materials, such as species close to pottery and rock. The thought and attitudes of these civilizations was also examined and concluded that the thinking and worldly thoughts and attitudes toward the post-death world might have been crystallized in the production and design of the works.

Halimeh Ahmad Yousefi (2013), in "Investigating the remnant pottery works of the Hellirud (Jiroft) civilization" some of the most important role of mythological foundations and seals of Mesopotamian civilization, such as "animal trapper" and "plant of immortality", which was inspired by Gil's traditions, was used at least a thousand years earlier in Jiroft civilization.

Golara Hallabian (2013), explores the abstract mode of Jiroft's civilization and uses it in the design and construction of jewels in "investigating the abstraction method of Jiroft's civilization patterns and their usage in the design and manufacture of jewelery". He concludes that all of Jiroft's designs are usable in making jewelery and the masonry technique and the combination of it with metal have not hampered the creation of works and led to the creation of new works in the field of jewelery.

### 2.1. Animal Designs of Jiroft Civilization

One of the most beautiful manifestations of the advent of human creativity in the field of Jiroft art is the design and construction of animal forms. Animal designs were once separated and used

simultaneously with other designs such as plant, geometric, and human. In addition to displaying the surrounding wildlife animals, these designs embody the profound concepts of the artistic moods of their creators, and provide reliable news of the many beliefs, literature, science, and their way of thinking of the universe. The association of these motifs with literary concepts is in tune with human designs and, as time goes by the form of abstract writing has been formed on the basis of literary stories, religious adventures and beliefs (Kiani, 2000: 76).

Jiroft's great writing is important because it is the bearer of the message and the creator of a non-written language. These representations may in part provide insights into the subjects of interest to the people, such as their mental appetites, their way of thinking, their habits and traditions, and their aesthetic sense. Scenes and subjects that were scattered around the plateau were taken from the perspectives of Iran's plateau, architecture, plants, animals, fantasies and beliefs of the people of this region (Peru, 1999: 289).

The main theme of Jiroft's art is its collective and universal significance, which is notable for it, and is more important than its special historical or narrative meaning. Out of the thousands of recyclable pens, about three hundred pens are decorated with precious and sometimes embossed designs for shrimp. The role of their decorative objects includes certain types of animals, monstrous and legendary creatures, human beings, as well as many species of plants and the outcrop of cities around them. In Jiroft containers, almost all eyes, whether human or animal, are stones.

In this stones, the eyes are rounded in wild and carnivorous animals (eagle, snake, leopard and lion), and in eagles and vegetarians (goat, cow, and human). The stone in the eyes is marble or white or turquoise. In the samples, the white color of the panther's eyes is made of rocks and black and turquoise. Perhaps the presence of precious stones in some parts of the body or clothing and the presence of a necklace embroidered with turquoise had a decorative or magical aspect in a geometric way and was used as a spell to protect humans in controlling snakes and overthrowing leopards; because this work is still done among the people of the Jiroft region (Majidzadeh, 2004: 2-3). The image of Jiroft's art is important if it is considered by the perspective of the world of ancient Iran. Thus, in decorative arts, the role of animal and plant materials is of cultural, economic, and religious significance. Moreover, they are manifestations of the attributes and blessings of life expressed in the form of visual metaphors (Curtis, 2010: 115).

### **3. Study and Analyses of Works**

At present, rocky objects (chlorite) and other objects found in the Jiroft area are kept in museums of the interior and international and only a few of them have been published and archaeologists have examined them. About all of these works (except for a few special cases) there are no archaeological studies (due to being seized). There is also no documentation and symbology, and only some of these objects have been investigated. The current information collection about these objects describes the role, physical characteristics, and archeological features. Hence, in this section, which is in fact a revenues for the identification of the works of Jiroft, given the available photos, published reviews of some examples of studies, information about a number of these works is being discussed.

#### **3.1. A Stone Dish with a Human Face like Dew**

This stone vessel is one of the most important pieces of Jiroft's archetypal objects, the human-animal symbols show that humans can create the characteristics of each part of the body of other

animals and rule it as a creature that dominates the earth. The meaning of Scorpio's role in many works may be a symbol of contempt and insubordination, but here it is more about the power and the divine aspect. The human combination of like dew in this work has dominated cheetahs. The man's waistband, leg-waist shawl, and a human-like skirt with claw-like claws that shrinks from the spittoon, and the exaggerated image of the scorpion in this picture give it a different look. The human body is depicted face to face. In this image, different curves and straight lines are used to create different tissues, as well as circles that have been used instead of cheetah nests, have a decorative effect.



**Fig 1** Cup with man like dew (Source; Author)



**Fig 2** Flat cup with man like dew (Source; Author)

**Table 1** Describes the stone dish with human beings like dew (Source; Author)

Work title	A stone dish with human like dew
Date and place of maintenance	Museum of Jiroft – 2500 BC
Main features	Man-Dave, Leopard
Theme of the motifs	Power, ruler over nature
Materials and size	Soap rock – 36 cm high

### 3.2. Conical Container with two dead Lion and Cow near the Tree

The following is shown in the image below the conical dish with the role of two lions, one of the most important objects of Jiroft's civilization. Two pairs of lion and cow, in the middle part of the dish, are located on one side, they are made in the form of mature lion and cow next to a tree. The artwork of the artist shows the engraving technique. The robustness of this artistic work, especially in explaining clearly the surfaces, the strong and strong lines of anatomy, is apparent in the small but extremely sensitive parts of the head. Two lions, two goddesses or clerks on the tree of life, or perhaps tribal tufts of the people and a symbol of power as guardians. Under the tree, the cow is the symbol of the sacrifice for a vegetarian god or tree of life that, in mythology, sacrificing it prevents the anger of the gods and increases blessing and fertility. Perhaps this is a symbol of the land goddess in the Egyptian mythology (Majidzadeh, 2004: 40). The symbol of lion and cow are also ancient signs that have been repeated in ancient Iranian civilizations. For example, in Persepolis, this role is seen as a conflict between lion and cow which is a symbol of the duality of nature and the interaction and contradiction between the forces of nature. But here is a pair of lion and cow that is depicted with greater authority and calm.



**Fig 3** Soap cup carved with two lion and tree image (Majidzadeh, 2004: 41)

**Table 2** Description of two lions and trees

<b>Work title</b>	<b>A dish with two lions and cows dead near the tree</b>
Date and place of maintenance	Museum of Jiroft – 2400 BC
Main features	Lion-cow-tree
Theme of the motifs	Guard
Materials and size	Soap stone – 18 cm

### 3.3. Cassidy with Scorpion

In many homogeneous and harmonious combinations of harmonics, there is a kind of harmony in the combination of elements and indications that seems to have a couple of consecutive and consistent rhymes. Undoubtedly, some of the role of Jiroft's motifs has mythical implications, and some of these representations confirm this assumption. Almost all dishes are obtained from graves. Perhaps these things are part of the ritual of burial, and the role of motifs on the containers embodies the concepts of post-mortem life (Derakhshani, 2007: 52). The meanings of the Scorpio symbolism are related to concepts such as fire, insult, madness, marital relationship, humiliation, suffering, evil, torture, lust, torment, misconduct and incompatibility (Jobs, 1991: 84). The combination of the scorpions with the exception of decorative efficiency emphasizes the coherence of a magic power or power.



**Fig 4** Scorpion on soap stone (Source; [www.chn.com](http://www.chn.com))

**Table 3** Description of scorpion on soap stone (Source: Author)

<b>Work title</b>	<b>A dish with scorpion around the dish</b>
Date and place of maintenance	Museum of Jiroft – 2500 BC
Main features	Scorpio-Decorative spiral symbols
Theme of the motifs	Protection and danger
Materials and size	Soap stone – 20 cm high

### 3.4. Cup with Tree, Bushes, Goat and a Ram

The male goat symbolizes the male nature, the abundance of life force, the energy of the creator and the goat, the female reproductive and reproductive power and abundance (Cooper, 2000: 57). Goat was once seen as an embodiment of the fertility of humans and herds of cattle and sheep, and the mountain goat in general was a symbol of male sexual power (Hall, 2008: 35). Mountain goat and horned animals are the allegory of the horoscope of life and food (Kambakhsh Fard, 2001: 67). This role is sometimes a symbol of agility and sometimes a sign of the artist's insistence on his individual method of decorating. (Warner, 2007: 516). The ram is one of the animal worshippers who were worshiped as gods dependent on fertility in the Middle East, Greece, and ancient Egypt. Together with the male goat as one of the twelve mainstream Chinese horses, it is a happy birthday symbol (Hall, 2008: 79). A local style is seen in the works of Jiroft civilization, and especially in this work. Although some of the motifs are from the near and contemporary civilizations of Jiroft, these effects have become native and have a special identity. The local style is in the carving on the stone and the local style of painting on pottery is from this category, which is said to have found several examples in Jiroft and in fact, a piece of pottery was so darned there (Karami, 2002: 94).

**Fig 5** Stone cup with goats and rams



**Table 4** Description of the stone cup with goat and rams (Source; Author)

<b>Work title</b>	<b>A stone cup with goats and rams</b>
Date and place of maintenance	Museum of Jiroft – 2300 BC
Main features	Goat, ram, tree and bushes
Theme of the motifs	Blessing, fertility and reproduction
Materials and size	Soap stone – 15 cm

### 3.5. Stone weight with Two Intertwined Snakes

The snake is a religious symbol with a wide variety of concepts. It seemed to rejuvenate with its periodic dressing, like the sun, and a symbol of death and rebirth. However, because the snake was naturally earth dependent, an underground god and enemy of the sun of God, and as a scorpion, could have caused injury and death. The cylindrical seals of the late 4th century AD in Mesopotamia showed a pair of complex snakes, which apparently implied it has mating. This picture apparently implies that those creatures were essentially terrestrial and a divine source of fertility (Hall, 2008: 68). The conflict between the two beasts is a demonstration of the double-sided powers of the snake, the beneficial and destructive forces of Sa'd and Nahs. The two snakes interspersed in the first place are the symbol of the equilibrium of opposites in the two poles of life and death (Duobukur, 1994: 68). The snake in Egypt was considered a guard and constable. This creature represents the solar arrays, the course of the sun, the lightning and the waters of the waters, and the sign of all the goddesses of the river. This animal represents knowledge, talisman, force, cunning, cunning, darkness, evil, corruption and seduction. The symbol of the soul penetrates into everything and represents the inner nature of man and alertness (Cooper, 2000: 33). The role of the snake in Jiroft is due to several factors. Belief in this creature, the natural abundance and the dangers of this animal in the region are among the most important factors in representing it at the level of dishes and we can even say that the image of the creatures such as the snake and the scorpion has been to eliminate evil or attract the attention of these creatures, which is the result of a psychological approach to the subject (Mohammadifar, 2004: 84).

**Fig 6** Rocky weight with two intertwined snakes

**Table 5** Description of intertwined snakes (Source; Author)

<b>Work title</b>	<b>Rocky weight with two intertwined snakes</b>
Date and place of maintenance	Tabriz Museum – 2600 BC
Main features	Local style, snake, rocky weight
Theme of the motifs	Revitalization of nature
Materials and size	Soap stone – 17 cm high

### 3.6. Stone Scorpio-Man

Human scorpion is one of the roles of the combination that is seen in the decorating of Jiroft's stone dishes (Fig 7). There is no doubt about its mythology; because with this creature, in the legendary, was in the role of guardian of the gates of the sacred mountains, the gate which had to pass through to enter the city of darkness (Majidzadeh, 2004: 7). As previously mentioned, similarities between the arts and myths of Iranian prehistoric civilizations and Mesopotamian civilization can be seen as one of these similarities. This sample was originally a dash that, over time, the decorative stones used on it were stamped and destroyed.

**Table 6** Description of Stone-Scorpion man (Source; Author)

<b>Work title</b>	<b>Rocky weight with two intertwined snakes</b>
Date and place of maintenance	Jiroft Museum
Main features	Existing combination of scorpio man
Theme of the motifs	Guardian
Materials and size	Soap stone – 17 cm

**Fig 7** Stone-Scorpion man (Source; Wikipedia)

### 3.7. Man-cow with Ornamental stones

Man-cow is a legendary creature with human cattle and man. The human beast can handle the leopard. There seems to be a series of supernatural powers and at the top of them, the human is a sweet, symbol of resistance, boil and death, and also a symbol of dynamism, hardness and battle and only he can defeat the scorpion. (McKenzie, 1990: 22) The human-beast symbol is a protective god, which is usually shown with the body of bull and head of man and sometimes it is combined with the body of lion and eagle. This role was usually used at the gates of the city and played the role of protecting the city (Hall, 2008: 120).



**Fig 8** Human beast with ornamental stones (Source; [www.weare.ir](http://www.weare.ir))

**Table 7** Description of Man-cow with Ornamental stones (Source; Author)

Work title	Man-cow with ornamental stones
Date and place of maintenance	Museum of Ancient Iran – 2400 BC
Main features	Existing man-cow combination
Theme of the motifs	The guard of king's property
Materials and size	Achaemenid art. Soap stone – 21 cm high

### 3.8. Man with two Legs with Leopard Body

A man with a lower limb like a leopard is another hybrid being that is usually fighting the image and a symbol of power. Leopard is a symbol of cruelty and fright and, in combination with man, passes these features to man (Fig 8). It is a very powerful two-dimensional image, and at the same time it is fighting with several powerful existing ones.



**Fig 9** Two-head man with leopard body (Source; Jiroft Museum)

**Table 8** Description of two head man with leopard body (Source; Author)

<b>Work title</b>	<b>Two-head man with Leopard body</b>
Date and place of maintenance	Tabriz Museum – 2300 BC
Main features	Man with two head and leopard body
Theme of the motifs	Power and violence
Materials and size	Soap stone – 16 cm high

### 3.9. Lion-Man destroying Man-Scorpion

Another famous and beautiful piece of Jiroft's civilization is a container with the combined role of lion-man and scorpion-man. This container is one of the works that is healthy and not damaged by its entirety and designs. This work has been kept at the Museum of Ancient Iran and has been trusted by Jiroft Museum for a limited time. The use of this device has been a ritual for special occasions (Ehsani, 1989: 121). There seems to be a series of supernatural powers, and at the top of them there is the human being who only succeeds in defeating the scorpion man (McKenzie, 1990: 22). The lion's man in ancient times was the symbol of the king's power and majesty. In fact, the combination of symbols, the combination of different powers is available, and it has the message that this creature, often quoted from the ruler or king, has all the power. The symbol of the lion-man refers to the positive aspect of power and the symbol of the scorpion-man to the negative aspect of power (Karami, 2002: 49). In the battle between these two existing compounds, the lion's man, who is the symbol of the power, defeats the scorpion.



**Fig 10** Man with the body of lion destructing the scorpion-man (Source; Author)

**Table 9** Description of lion-man destroying man-scorpion (Source; Author)

Work title	Lion-man destroying man-scorpion
Date and place of maintenance	Museum of Ancient Iran – 2250 BC
Main features	Synthetic and mythological designs
Theme of the motifs	Battle for survival-power-seeking
Materials and size	Soap stone – 12 cm diameter

### 3.10. Weight with an Eagle that takes two Snakes

Among other famous works of Jiroft is a beautiful weight that has a very elegant design. The weight that a grid of motifs created on it may have been used commercially. The Eagle or the Hawk is a symbol that belongs to the gods of the earth and the sky, and is an old symbol of ancient times. The Eagle and the Snake are fighting, a symbol of the struggle between the gods of heaven and earth (Hall, 2008: 68). The flying eagle in the clouds could have been linked to a stormy storm (Warner, 2007: 514). It's not unusual to see an eagle that finds a snake in its clutches in areas where this short bird and claw can be found. This image is the symbol of the struggle of the powers of heaven with the infernal powers and the contradiction between day and night, the heavens and the earth and good and evil. Hawk is a symbol of courage, power, victory and courage and is associated with the gods of the sun (Duobukur, 1994: 58).








**Fig 11** Eagle that took snake into the fork (Source; Jiroft Museum)

**Table 10** Description of snake taking two snakes (Source; Author)






<b>Work title</b>	<b>Eagle that takes snakes into fork</b>
Date and place of maintenance	Jiroft Museum
Main features	Local style – the role of eagle and snake
Materials and size	Soap stone – 16 cm

At the end of the introduction and analysis of the selected works of Jiroft civilization, by comparing the works that have been introduced to this point, we try to reach a more general scale than the dimensions of this art. In this regard, the works are compared in a table in terms of role, subject, and visual characteristics. Then, they will look at the similarities, differences, and characteristics of these works.

**Table 11** Comparison of motifs, themes and visual features of Jiroft's works

<b>Work title</b>	<b>Work photo</b>	<b>Role</b>	<b>Theme</b>	<b>Visual features</b>
Cup with Dave like human role		Man-Dave Leopard	Power, ruler over nature	Symbolic composition, animal and combination designs
Cup with two lions		Lion-cow-tree	Guard and guard	Symbolic composition – rhythm
Container with the scorpion		Scorpio - decorative spiral symbols	Protection and danger	Rhythmic role of duplicate and repetitive
Cup with goats		Goat- -tree and bush	Blessing - fertility and reproduction	Non-symmetric composition - Elementary Perspectives - Expansive Volume
Stone weight with the role of two snakes		Local style - snake-weightlifting	Revitalization of nature	Symmetric composition



The rocky man-scorpion		Existing combination of scorpion man	Guardian, Guardian	Rhythm-tissue asymmetric	–
man cow		Existing human-cow combination	The guard of the king's property	Symmetric composition	
A man with a leopard body		Man with two heads with a leopard body	Power and violence	Asymmetric composition - full-time and accurate motifs	
Battle of man – lion with scorpion man		The lion man is destroying the scorpion man	Combined and mythological motifs - the battle for survival-power-seeking	Asymmetric and irregular composition	
Snake took in the eagle fork		The eagle that took snakes - the local style - the role of the eagle and the snake	The battle of two natural powers-the struggle for survival	Symbolic composition - prolific work - visual focus	

Regarding the analysis of the works, it seems that animal and animal designs perfectly reflect on the stone works of civilization of Jiroft. All motifs are either animals or hybrids. The cause of this issue will be further analyzed, the role of the snake, eagle and scorpion in these works is abundantly found, which can be due to the high presence of these animals in the nature of the time of the region as well as the mythical meaning of these animals. In general, the symbols used in the works of Jiroft civilization refer to the concept of power, the struggle for survival, protection and rule, the dominance of nature, and fertility and blessing. Also, the composition of these works is often in symbiotic form and depicts full-fledged, detailed visuals. However, some exceptions show the use

of different visual elements. In Jiroft works, different curves and straight lines are used to create different textures. The artwork of the engraving artist is precise and skillful. The high precision of this artistic work also reveals the artist's skill in explaining clearly the levels, the strong lines of anatomy. In many homogeneous and harmonious combinations of harmonics, there is a kind of harmony in the combination of elements and indications that seems to have a couple of consecutive and consistent rhymes. Undoubtedly, some of the role of Jiroft's motifs has mythical implications, and some of these representations confirm this assumption. Almost all of these containers come from graves. Probably these are part of the funeral procession and the role of motifs on containers is the concept of life after death. By studying the table below we can conclude that the symbols used in the works of Jiroft civilization are all related to nature and power and in a way emphasize concepts such as fertility, power, monarchy and protection.

**Table 12** Meanings and themes of symbols (Source; Author)

Theme	Symbols related and point able
Cow	The symbol of power and reproductive power - related to the sun - the gods and the sky - the manifestation of fertility - the cow breed as an animal and victim, a symbol of selflessness - a symbol of fertility and abundance and blessing - the horn was the manifestation of power and power, especially the bulls' horns and material and ram
Scorpion	Symbol of resistance, welding, exodus and death - a symbol of dynamism, hardness and battle - the symbol of fire, insult, madness, marriage, humiliation, suffering, evil, torture, lust, torment, misconduct and incompatibility.
Goat	Male goat symbolizes male nature, abundance of life force, energy generator - female goat representing female reproductive force and fertility and abundance - the manifestation of fertility of humans and cattle herds - the symbol of male sexuality - mountain goat and horned animals, the analogy of the horoscope of life and food - sometimes a symbol of agility and sometimes a sign of the persistence of perceptive strangeness on a particular individual approach.
Ram	Worshiped as devoted and fertile gods - with a male goat as one of the twelve crowns of the Chinese calendar - the noble retirement symbol
Leopard	Symbol of cruelty, passion, aggression and favor - since the mole on the body of the leopard is similar to the eye, it is known as the Great Guardian, the Egyptian goddess who calls on him as the destroyer of snakes and scorpions. They had the shape of a leopard.
Lion	It is related to the worship of the sun-God-the lions were the symbolic guardians of the temples and palaces and tombs, and ancient men thought that their predilection would eliminate harmful influences-the symbol of the power of fire, the spectacle, the rudeness, the sun's rays , Victory, summer, theft, bravery, spirit of life, fortune, kingdom of animals, reverence, thought, power, divine and soul, solar heat, care, care, supernatural and subhuman energy - a sign of the fertility of the earth- The head of the milk is a manifestation of power as a sign of his vigilance and his later limbs. Long tail drawing for lion or cats is a sign of greater authority. There is a series of supernatural powers, and at the top of them there is a human being who alone can destroy evil.
Eagle and Hawk	Depending on the gods of the earth and the sky, the eagle and the battle snake are the symbol of the conflict between the gods of heaven and earth - the flight of the eagle in the clouds could also be associated with a stormy storm - the symbol of the battle of the powers of the infernal powers and the contradiction between day and night, the sky And the earth is good and evil. - The hawk is a symbol of boldness, power and bravery and is associated with the gods of the sun.
Snake	The serpent is a religious symbol with a wide variety of concepts - it revives itself with its periodic circulation, such as the sun, and represents the symbol of death and rebirth-since it was naturally dependent on the earth, an underground god and enemy of the sun-God. And as a scallop, it could have caused injury and death. - The Divine Source of Fertility - The Battle of Two Creatures is a demonstration of the dictatorship of the snake, the beneficial and harmful force of Sa'd and Nebula. The two snakes interspersed in the first place, the symbol of the equilibrium of opposites in two poles of life and death. - The snake was thought to be Egypt's



	guardian and constabulary. - The manifestation of the solar radiation, the course of the sun, the lightning and the water, and the sign of all the goddesses. The river is a sign of knowledge, talisman, force, cunning, cunning, darkness, evil, corruption and seduction. A symbol of the soul that penetrates into everything and embodies the inner nature of man and consciousness - is to portray the role of beings, such as the snake and the scorpion, in order to eliminate evil or attract the attention of these beings.
Man-lion	A symbol of power and kingdom
Man-cow	A symbol of the usefulness of a person for himself and his community. The cow-man is usually a guard who protects the centre or treasure or gate. Avoid evil and repel evil.
Man-scorpion	There is no doubt about its myth, because with this creature, in the legendary epic of Gil, as a guardian of the gates of the mountains, the gate which had to pass through to the city of darkness, we encounter it.
Man-leopard	A man with a two head like a leopard is another hybrid being that is usually fighting the image and a symbol of power.

#### 4. Conclusion

In the Jiroft works, the communication disciplines of symbols are tangible with reality and nature. Artists have, in some cases, exaggerated in their natural attributes and the combination of various features, and in others, they have achieved only a simple role of form for symbolic motifs, which, in addition to their appearance, show realities. Drawings and symbols used cannot be the simple and everyday attitude of the peoples of that land, but in addition to the decorative aspect, symbol and sign of beliefs, beliefs, myths of the people and the historical and natural events of that era and cultural, mythological, religious, decorative and artistic naturalistic aspects are mixed together. These animal designs, in accordance with well-known symbolic concepts, include the following types. The cow (a symbol of bliss and fertility), a goat, and ram (symbol of fertility, blessing and agility), the eagle (symbolizes the power of the sky) Scorpio (the symbol of humiliation and insubordination), snake (the symbol of life and death), lion is the symbol of power and guardian and combination beings (man-scorpion, man-milk, man-leopard and men-cow) which in Jiroft only expresses the deep sense of man in insisting on mastering other creatures and gaining the dimensions of the horde. These images in Jiroft containers represent the man-made war with the hard nature of southeastern Iran. In this motif, the concept of duality, or dualism, and dualism can be seen, that is a sign of twofold similarities and an opposite duality.

These two-dimensional repetitions with the same materials represent an emphasis on symbolic concepts such as power or importance to them. In the end, given that the newly discovered civilization has a rich and beautiful art in Jiroft, and there is not enough research work on it, to continue research on this topic, it is suggested that scholars interested in the art of civilization in Jiroft consider the same title with a larger number of case studies. Do the same thing with the analogy of two similar examples, to study the designs of Jiroft's pottery and compare these designs with stone motifs, to study the comparative study of motifs during different periods of Jiroft's civilization, study the effects of Jiroft's art on his subsequent civilizations and examine the impact and influence of Jiroft's art on contemporary and adjacent civilizations.

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## Investigating the Relationship between the Cultural System of Society and Presence of Citizens in Urban Space (Case study: Pedestrian Path on Farrokhi Street of Yazd, Iran)

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### Abstract

Culture and cultural values are a community, the identity and spirit of a city. Culture as a decisive factor in behavior is always in the realm of society, because it is shown in a set of beliefs, traditions, and behavioral patterns. Planning for the development of hiking culture is not an issue that will soon come to an end, but any decision taken in this matter will be tangible in the next 10 years. In this paper, the cultural criteria of the community have been studied. A questionnaire was used to collect the research data. The questionnaire items were based on the criteria of the cultural system. The research community in this research was 239,000 people. The sample size was selected randomly and using Cochran model 383 people were selected to complete the questionnaire. The SPSS software was used to study the relationship between society culture and the presence of citizens in pedestrian path. The results showed that there is a significant relationship between these two variables of culture and the presence of citizens.

**Keywords:** Cultural Value; Pedestrian Path; Farrokhi Street

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### 1. Introduction

In the opinion of many anthropologists and sociologists, culture is used in the sense of the cultural system. Culture in its particular sense is the basis for the formation and continuity of the identity of the society, and the characteristics for which it is the same are the characteristics of

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culture in a particular sense (Shateripur Esfahani & Najafi Ebrahbandadi, 2012). Given current trends around the world, it shows that culture is increasingly playing an important role in the future of cities. (Azad Safiye, 2005).

Attention to culture in the city is not a new topic. Sociologists, anthropologists, historians, philosophers, geographers, artists and literates from the very beginning of the emergence and expansion of industrial cities in the 19<sup>th</sup> century paid attention to the importance of the cultural dimensions of the city. But, a clear understanding of the place of culture in the urban design system is a new issue. Yazd city is one of the cities that needs more attention in cultural areas on the urban path development for the citizens. In this regard, this article is prepared.

### 1.1. Culture

Culture derives from the Latin root *cholera*, which basically means to tend, or to cultivate. Thus, culture was originally a noun of process geared to describing the fostering of the growth of something. During the 16th century in England, this notion of culture as the tending of growth of something was applied to the development of human beings, especially the mind or intellect.

Culture is the characteristics and knowledge of a particular group of people, encompassing language, religion, cuisine, social habits, music and arts. The Center for Advance Research on Language Acquisition goes a step further, defining culture as shared patterns of behaviors and interactions, cognitive constructs and understanding that are learned by socialization. Thus, it can be seen as the growth of a group identity fostered by social patterns unique to the group (Zimmermann, 2017).

### 1.2. Pedestrian Path

A paved path for pedestrians located on outside of the public way, separated and protected from motor vehicle travel lanes.

## 2. Literature Review

Riza in his research entitled, "Walkability as a Culture Practice", has concluded that there is a positive relationship between culture and motivation and physical activity in walking (Riza, 2017).

Amos Rapoport an architect, urbanist and one of the founders of Environment-Behavior studies, he believes that the environment and culture are mutually interacting. The impact of the environment on the formation of human behavior has been of interest to this urbanist (Issa Zadeh, 2015). Franz Boas, Edward Sapir and Alfred Kroeber are many scholars who have done a lot of research in the field of culture, and believe that culture is effective in shaping human personality and behavior.

David Maxfield, a passionate social scientist, believes that these the norms, practices, habits, and unwritten rules that form our culture, can totally change our behavior in life. In fact, culture has a significant impact on our behavior (Maxfield, 2015).

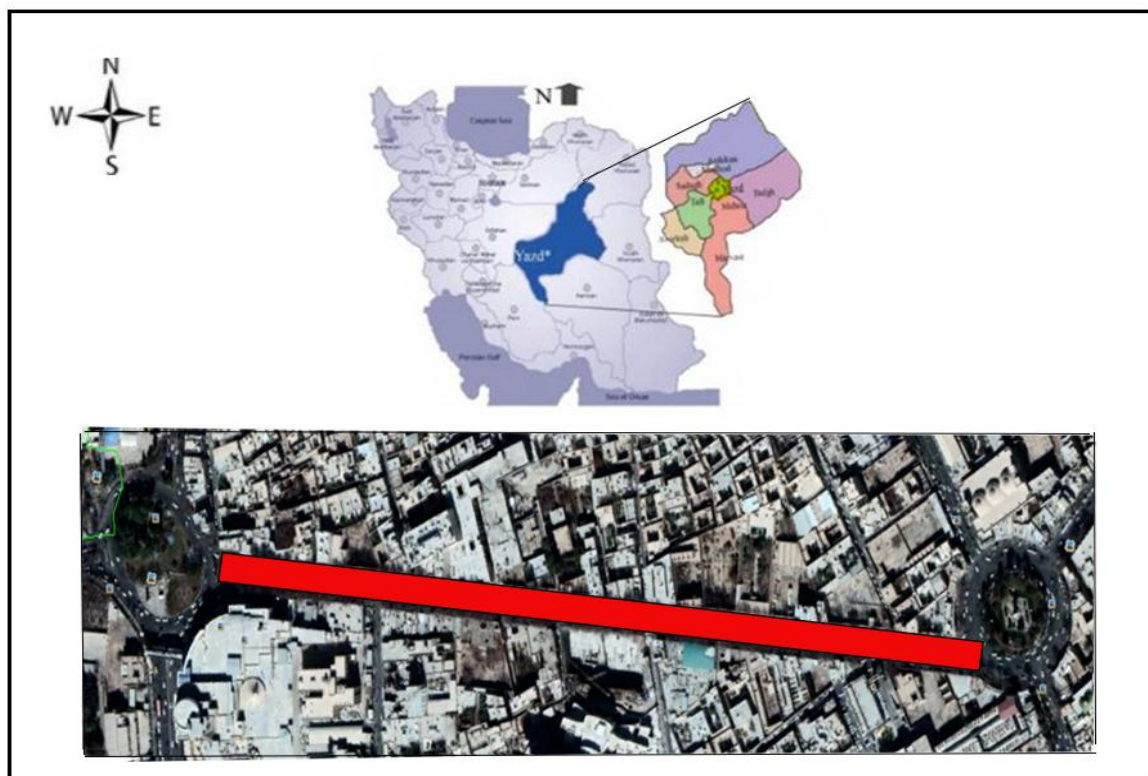
Sattarian and colleagues in their article entitled "The impact of culture and social behavior on sustainable urban development", concluded that culture is one of the important and influential factors in urban development, and one of which is the development of pedestrian culture in urban society (Sattarian et al., 2015).

### 3. Methodology

This is an applied research implemented with a descriptive-analytic method to identify the cultural criteria for citizens' presence. The criteria were defined based on the views of different thinkers, which were the criterion for questionnaires. In this paper, two variables of culture and people's willingness to walk in the urban space were studied in the questionnaire to investigate the relationship between the two variables. The Pearson correlation analysis was used in SPSS software.

### 4. Case Study

Farrokhi Street is located in the city center of Yazd, Iran. This street is in the region 2 of Yazd between Shahid Beheshti Square and Azadi Square and it approximately 812 meters long. Beheshti and Azadi Squares are one of the most important and responsive fields in Yazd. This site is in old and historical context of Yazd city. Farrokhi Street is the main streets of Yazd, therefore, most national marches are held on this street. The long form and linear axis of Farrokhi Street and the existence of a number of functional uses such as medical, office and commercial building causes to be a busy roadway. The pedestrian path of this street is located on the north and south with the potential for citizens to be present (Fig 1).



**Fig 1** Location site



**Fig 2** Northern Pedestrian path in the Farrokhi Street of Yazd city



**Fig 3** Southern Pedestrian path in Farrokhi Street of Yazd city



**Fig 4** Shahid Beheshti Square (Eastern entrance to Farrokhi street)



**Fig 5** Azadi Square of the Yazd city (Western entrance to Farrokhi street)

## 5. Discussion

After studying the criteria of the cultural system which are as follows:

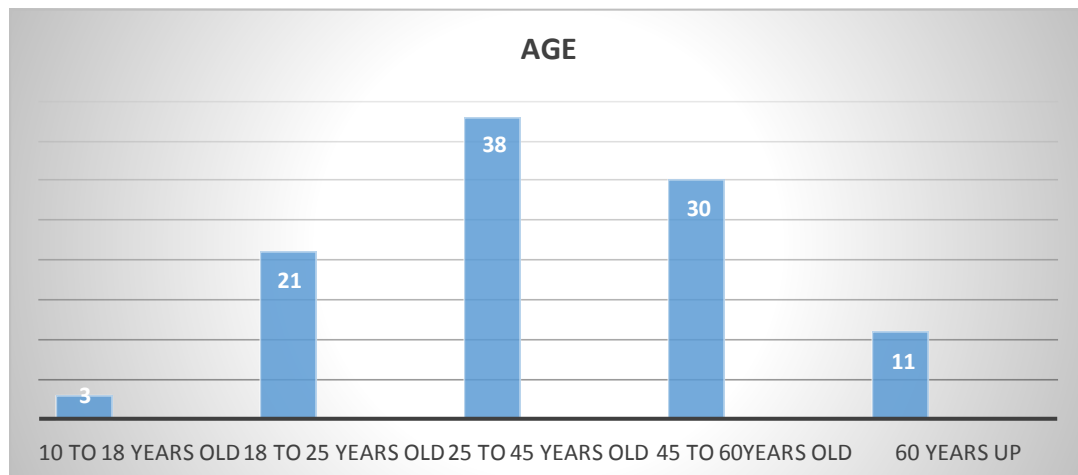
**Table 1** Criteria and indicators of the cultural system

Criteria	Indicators
Holding exhibitions, presenting artwork	1. Holding cultural and religious ceremonies celebration 2. Existence of cultural value along the way 3. Cultural Events (wall paintings) 4. The use of Iranian Islamic architecture along the path for the presence of pedestrians
Importance of the role of hiking culture	1. Lack of the habit of walking 2. Preparing appropriate pedestrian conditions
Manner of society	1. Establishment appropriate people's customs 2. Sense of belonging to the space

(Source: Fazeyeli, 2013; Mortazavi, 2012)

## 6. Questionnaire

The research community in this research is 239,000 people (Given that the site is in Zone 2). The sample size was selected randomly and using Cochran model, 383 people were selected for the questionnaire. This questionnaire includes 5 questions about culture and 5 questions about the presence of people.



**Fig 2** Age chart of the participants in the questionnaire

As it is seen in the Fig 2, the majority of people in question are in the age group of 25 to 45 years, and the smallest of them are from 10 to 18 years old. In fact, it can be said that the presence of the younger generation of society was the largest audience of the questionnaire. Overall, 45 percent were male and 55% of women participated in this questionnaire.

## 7. Pearson Correlation Analysis

The bivariate Pearson Correlation produces a sample correlation coefficient,  $r$ , which measures the strength and direction of linear relationships between pairs of continuous variables. The Pearson Correlation is a parametric measure.

Correlation can take on any value in the range  $[-1, 1]$ . The sign of the correlation coefficient indicates the direction of the relationship, while the magnitude of the correlation (how close it is to  $-1$  or  $+1$ ) indicates the strength of the relationship.

- $-1$  : perfectly negative linear relationship
- $0$  : no relationship
- $+1$  : perfectly positive linear relationship

The sample correlation coefficient between two variables  $x$  and  $y$  is denoted  $r$  or  $r_{xy}$ , and can be computed as equation 1.

$$r_{x y} = \frac{\text{cov}(x,y)}{\sqrt{\text{var}(x)} \cdot \sqrt{\text{var}(y)}} \quad (1)$$

In this research, the variables  $x$  and  $y$  are the variables of presence and society culture, and these calculations are performed by the SPSS software.

The bivariate Pearson Correlation is commonly used to measure the following:

- Correlations among pairs of variables



- Correlations within and between sets of variables

This study includes the first ones.

In this research, we used the numerical questionnaire to convert the research variables into the distance variable.

For example:

1: In your opinion, to what extent the culture of society can be effective in the presence of people in the Pedestrian path?

Very low (1)      Low (2)      Average (3)      Much (4)      Very much (5)

## 8. Research Hypothesis

*Hypothesis 1:* There is no a significant relationship between two variables presence and society culture.

H1:  $\gamma=0$

*Hypothesis 2:* There is a significant relationship between two variables presence and society culture.

H2:  $\gamma \neq 0$

## 9. Pearson Correlation Analysis in SPSS

As previously explained by the example, each questionnaire response has its own rating. In each of the questionnaire, the indexes related to the two variables of society culture and presence are examined. (Indicators are listed in Table 1)

The answers to questions about culture variable in columns are shown with q1, q2,..., and responses to presence variable questions with s1, s2... .In the following. The indicators for each variable are added together and placed in the column for the variable. The tables shows that a total of 383 respondents. (Table 2).

**Table 2** Pearson correlation analysis in SPSS

N	q1	q2	q3	q4	q5	Culture	s1	s2	s3	s4	s5	presence
1	5	3	5	5	4	22	4	4	4	5	4	21
2	5	3	5	4	5	22	4	5	5	4	4	22
3	4	3	5	4	4	20	5	5	4	4	4	22
4	4	2	1	3	4	14	5	5	2	3	3	18
5	4	2	1	1	5	13	3	5	5	2	5	20
6	5	3	3	5	5	21	5	4	4	3	5	21
7	4	5	5	5	4	23	4	3	4	5	5	21
8	5	4	5	5	4	23	3	4	4	5	4	20
9	5	4	5	5	4	23	5	3	5	5	4	22
10	4	3	3	5	5	20	5	5	5	3	4	22
11	5	5	5	5	5	25	5	4	4	4	4	21
12	5	5	5	5	5	25	5	4	4	4	4	21
13	5	4	4	4	4	21	4	5	5	5	5	24
14	4	4	4	4	4	20	4	5	5	5	5	24
15	4	4	4	4	4	20	4	3	3	3	3	18
16	4	5	5	5	5	24	5	5	5	5	5	25
17	5	4	4	4	4	21	4	4	4	4	4	20
18	5	5	4	5	5	24	3	3	5	3	3	17
19	5	5	5	5	5	25	5	5	5	5	5	25
20	4	4	4	4	4	25	3	3	3	3	5	17



21	4	5	5	5	5	24	5	5	5	5	5	25
22	5	5	5	5	5	25	5	5	5	5	5	25
23	4	5	5	5	5	24	5	4	4	4	4	21
24	4	4	4	4	4	20	4	4	4	4	4	20
25	5	4	4	4	4	25	4	4	4	4	4	20
26	4	4	4	4	4	20	5	4	4	4	4	17
27	3	3	4	5	5	20	5	5	5	3	4	22
28	5	3	3	5	5	21	5	4	3	3	5	20
29	4	3	5	4	4	20	3	3	4	3	3	16
30	5	5	2	3	3	18	4	3	4	3	3	19
N=...,383	4	5	5	3	5	22	5	4	4	2	2	17

The results will display the correlations in a table, labeled Correlations

**Table 3** Results of Pearson correlation coefficient between two variables of society culture and presence

	Culture	Presence
Culture Pearson correlation Sig.(2-tailed) N	1 A 383	.443** B .000 383
Presence Pearson correlation Sig.(2-tailed) N	.443** C .000 383	1 D 383

\*\* . Correlation is significant at the 0.01 level (2-tailed).

- A. Correlation of Culture with itself ( $r=1$ ), and the number of non-missing observations for Culture ( $n=383$ ).
- B. Correlation of Culture and Presence ( $r=0.443$ ), based on  $n=383$  observations with pairwise non-missing values.
- C. Correlation of Culture and Presence ( $r=0.443$ ), based on  $n=383$  observations with pairwise non-missing values.
- D. Correlation of Presence with itself ( $r=1$ ), and the number of non-missing observations for weight ( $n=383$ ).

The important cells we want to look at are either B or C. (Cells B and C are identical, because they include information about the same pair of variables.) Cells B and C contain the correlation coefficient for the correlation between Culture and Presence, its p-value, and the number of complete pairwise observations that the calculation was based on.

The correlations in the main diagonal (cells A and D) are all equal to 1. This is because a variable is always perfectly correlated with itself.

In cell B (repeated in cell C), we can see that the Pearson correlation coefficient for Culture and Presence is .443, which is significant ( $p < .001$  for a two-tailed test), based on 383 complete observations (i.e., cases with non-missing values for both Culture and Presence).

Based on the results, we can state the following:

- Culture and presence have a statistically significant linear relationship
- The direction of the relationship is positive (i.e., height and we Culture and Presence are positively correlated), meaning that these variables tend to increase together (i.e., greater Culture is associated with greater Presence).
- The magnitude, or strength, of the association is approximately moderate

Therefore, the second hypothesis is correct.

*Hypothesis 1:* There is no a significant relationship between two variables presence and society culture.

H1:  $\gamma=0$

*Hypothesis 2:* There is a significant relationship between two variables presence and society culture.

H2:  $\gamma \neq 0$  ✓  $\gamma = .443$  ✓

## 10. Conclusion

The results of this study showed that there is a direct relationship between the culture of society and the presence of Citizens. It is possible to culturalize in the society can be increased presence people.

The category of culture is considered as the greatest need of human society and is a major factor in the dynamism, vitality and sustainability of societies. The topic of culture as the main factor in the economic, social, political, human and moral development of the country is the focus of attention of scholars, thinkers and elites. Culture can guide society's social behavior. There is a direct relationship between culture and social behavior. Every change in culture has a behavioral change

In this regard, suggestions were told:

- Culturalize in the society about walking during festival and exhibitions
- Provide appropriate patterns for reducing travel time in the city
- Creating more co-ordination among institutions and executive agencies and legislators and custodians of cultural and educational affairs with the mass media.

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