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Original Article

Moshta fishing: A link between fish and fisheries and art

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Abstract: Fish and fisheries have long been subject of art works of ancient Persians, Egyptians and Chinese. Art has a variety of dimensions and perspectives associated with nature/environment including marine or freshwater bodies. Following the idea of linking art, fish and fisheries and the marine environment, in this study, we used local set-net fishing known as Moshta as a traditional fishing gear at the coastal area of Bandar Abbas, Iran to present emotional state and concept of repeatability. The Moshta fishing (i) repeats almost every day, (ii) stimulates emotions, (iii) brings deaths to fishes, (iv) supplies food to peoples and birds, and (v) contributes to the economy of local families. Hence, there is always a reproducibility creation in this man-made fishing gear. This process in a worthy way to bring lights to the creation of different links between fish and fisheries from one hand and art in the other hand.

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Introduction

Fishes with about 35,613 species (Fricke et al., 2010) are the largest group of vertebrates comprising almost more than 50% all the known extant vertebrates and they exhibit great diversity in terms of morphology, biology, ecology, physiology and genetics (Yancey et al., 2014; Nelson et al., 2016). Fishes are important food resources for human being worldwide. They are caught commercially, and recreational/sport fishers, kept as pets exhibiting in public and home aquaria. Fishes have also had a role in culture through the ages, serving as deities, religious symbols, and as the subjects of art, books and movies.

Fishes have long been the subject of art works. Painting and sculpturing of salmon, trout, and pike by Cro-Magnon people in caves of France date back to 14000 years ago (see Moyle and Moyle, 1991). The ancient Persians, Egyptians and Chinese have also illustrated many fish species on the pottery and walls of tombs (Klingender, 1971; Moyle and Moyle, 1991; Moradi, 2017). The ancient art works has been used as tools for acquiring information on fishes, including fish species found in the environment, on fish size, on its relative importance, on historical events and also on conservation ecology (Pinnegar and Engelhard, 2008; Guidetti and Micheli, 2011; Begossi and Caires, 2015). The outstanding work of Guidetti and Micheli (2011) showed that for reconstructing historical baselines, nontraditional methods, including the use of paleontological, archeological, and historical records, as well as anecdotal information and local traditional knowledge can be combined with more conventional ecological approaches, such as field monitoring and molecular analyses. All of these reveals proper link of art and fisheries. Art has a variety of other dimensions and perspectives associated with nature/environment including marine or freshwater bodies. Nature is perceived in a variety of forms, and the perception of nature can also be expressed in different ways by different peoples, including those who look at the fish or fishing methods.

There are a variety of methods used to catch fish. The majority of methods have an adverse effect on the marine environment, in terms of bycatch, damage to the seabed, and negative effects on the marine food web. It can also embody perception, imagination and

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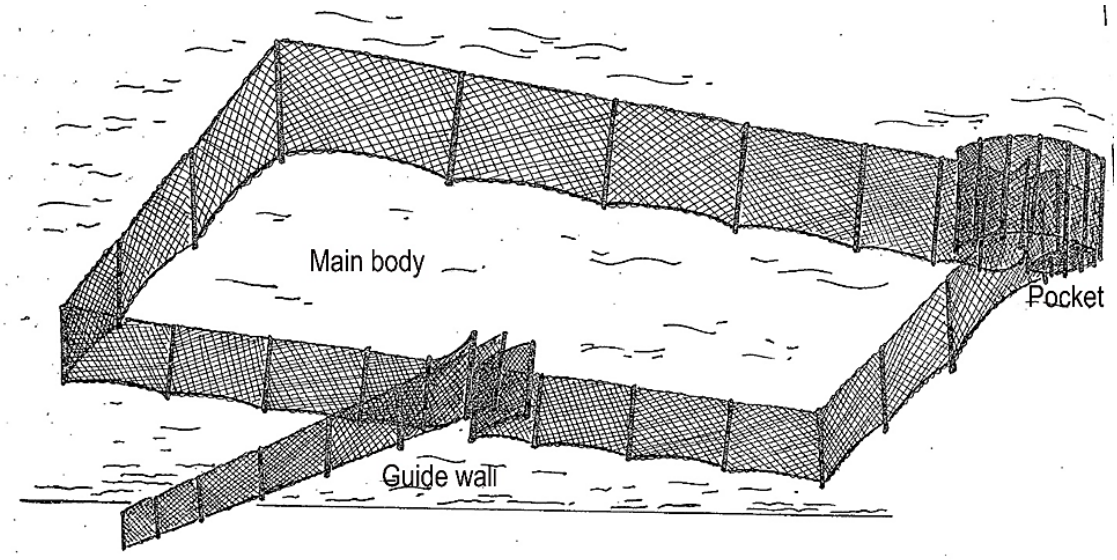

Figure 1. Schematic drawing of a Moshta showing its three main parts.

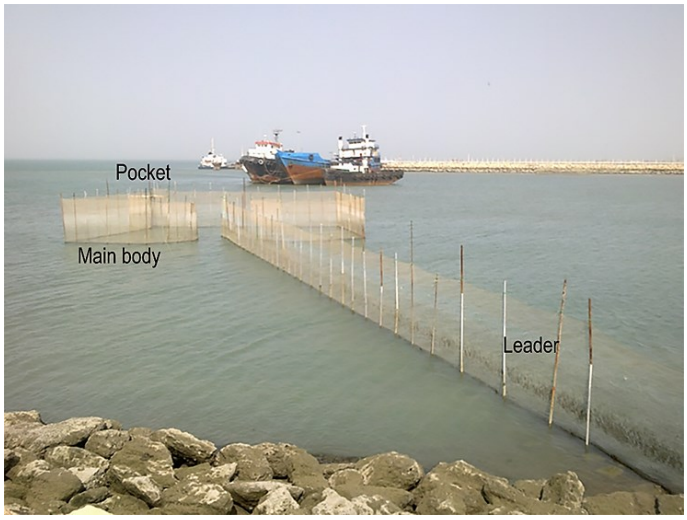

Figure 2. General view of Moshta showing its three main parts in low tide.

wisdom of photographers and painters. These fishing methods can reflect how these people interact with nature. One of these fishing methods is Moshta which has provided a platform for artists to represent their perceptions from the nature to show concept of repeatability. Local set-net fishing known as Moshta (Fig. 1) is a passive gear which is left in place for a period before retrieval. Moshta (in Iran and hadrah in Kuwait) is a traditional fishing gear in the Persian Gulf, since the 1800s, with set nets (fixed stake net trap). It is interesting for the photographers and painters due to the facts that, (1) it is fixed at the coastal area and thus easy to access it and (2) the caught fishes attract the artists. Following the idea of

Figure 3. General view of Moshta at moderate tide.

linking art, fish and fisheries and the marine environment, in this study, we used Moshta as a traditional fishing gear at the coastal area of Bandar Abbas, Iran to present concept of repeatability.

Materials and Methods

To make a link between art, fish and fisheries and environment, we visited Moshta fixed in the coastal sites of Bandar Abbas during the years 2018 and 2019 and different photographs were taken. We also made a variety of paintings on fishes, to express the feelings on this subject.

Results and Discussions

Moshta (Set nets): The use of Moshta (Figs. 1-3) has a very long history in Iran and in the past, palm leaves were used for this purpose. In the indigenous culture of the people of Hormozgan Province, Moshta refers to any enclosed area whose walls are made of plant materials. The term has been used in rural areas for enclosed agricultural lands or livestock pens. The

fences of this fishing tool in ancient times are made of palm tree leaves and today are made of cotton nets and wooden bases. Due to the presence of cotton nets in its walls in some areas, it is also called Jal. In the south of the country, there are other nets that, like the Moshta, use tidal phenomena to catch coastal fish, including Sakar (in Bushehr Province at the mouth of the estuary) and Milan (in the Arvand River, which is similar to the Moshta). Moshta nets (Figs. 1-3) are usually used to catch the littoral fish like Mugilidae, Clupeidae and Sillaginidae and also shrimps *Metapenaeus affinis* and *Penaeus mergueinsis* (see Akbari and Asadi, 2000; Akbari, 2002; Asadi et al., 2002).

The nets that used in this method do not follow specific rules. The height of body depends on high tide. The lower part of body net hold under bottom and like a wall covers the whole water from bottom to surface. The Moshta structure consists of three main parts, including (i) the guide wall (leader) which includes vertical wooden stakes fixed with a net to guide fish or other aquatic animals to the main body, (ii) the main body in the form of a square or rectangular that is created by fixing vertical wooden stakes with nets and at specific intervals, and (iii) the pocket which is located in one or two corners of the main body and usually is triangular or crescent shaped.

During the high tide, when littoral fish swim toward the leader, after doing 8-shape movement, goes to the body and then to the pocket (Gerami and Dasbaz, 2013). Moshta is installed in the coast areas that have the following characteristics: (i) the desired location should not be exposed to waves and storm, (ii) the bed is soft and can be drilled so that wooden beams of Moshta walls can be placed in it and (iii) the installation site of Moshta should be exposed to tidal currents and the difference in tidal amplitude should be significant, so that during the high tide, the Moshta is completely covered by water and at low tide the water goes down and leaves the Moshta, and (iv) in these areas, the slope of the coast is usually low and the width of the tidal zone is significant.

Taxonomic groups caught by Moshta: The results of this study and the previous data reveled that teleosts, shrimps, crabs and cephalopods constitute the main catch of Moshta. Although the other groups such as elasmobranches, reptiles (sea snakes: Elapidae / Hydrophiinae and sea turtles: superfamily Chelonioidea) are also found in Moshta. Birds are also use Moshta to catch the aquatic animals (see Akbari and Asadi, 2000; Akbari, 2002; Asadi et al., 2002).

Figure 4. Photograph of Moshta fixed in the coastal area of Bandar Abbas catching different fish species.

Figure 5. Photograph of Moshta fixed in the coastal area of Bandar Abbas catching different fish species.

Moshta and Art (concept of repeatability): Moshta is one of the interesting tools in hands of artist to show their emotional state and concept of repeatability using photos (Figs. 4-7) and paintings (Figs. 8-13). One of the main factors in the process of art creation is its reproducibility. It can be showed in different

Figure 6. Photograph of Moshta fixed in the coastal area of Bandar Abbas catching different fish species.

Figure 7. Photograph of Moshta fixed in the coastal area of Bandar Abbas catching different fish species.

ways using various elements including daily fish catch in Moshta traditional fishing gear. This process (i) repeats almost every day, (ii) stimulates emotions, (iii) brings deaths to fishes, (iv) supplies food to peoples and birds, and (v) contributes to the economy of local families. Hence, there is always a reproducibility creation in a man-made fishing gear. Figures 4-10 show this process in a worthy way a bring lights to the crating different links between fish and fisheries from one hand and art in the other hand.

The paintings of fishes in the Moshta net (Figs. 8-14) which are all from the Arrest Collection/Ac (to show a sudden stop in vital activities), are drawn on canvas 70x100 using the Mix Media Technique

Figure 8. A painting from the Arrest collection (canvas painting, 70x100, mixed media technique). Beach sand is used to create texture and collage, bandage and tapes is used to dress wounded fish, cold colors express the marine environment and triangular composition presents danger.

Figure 9. A painting from the Arrest collection: canvas painting, 70x100 cm, mixed media technique using beach sand, cold and warm colors and circular composition showing both the trapped and un trapped fishes to present emotional state and concept of repeatability.

(MMT), and the beach sand is used to create texture and the gas and bandage are used for fish collage. In these series of paintings, the first author (SM) has tried to show her fillings about the fishes caught in the Moshta fishing gear. The injured fishes in Moshta net are seen with frightened eyes and a triangular composition that indicates a recurrence of danger in the coming days (Fig. 8). Although this experience is new and unpleasant for them, the fishes know that this repetition continues as long as they are alive. The use of texture, gray color and forms (fishes) is repeated in

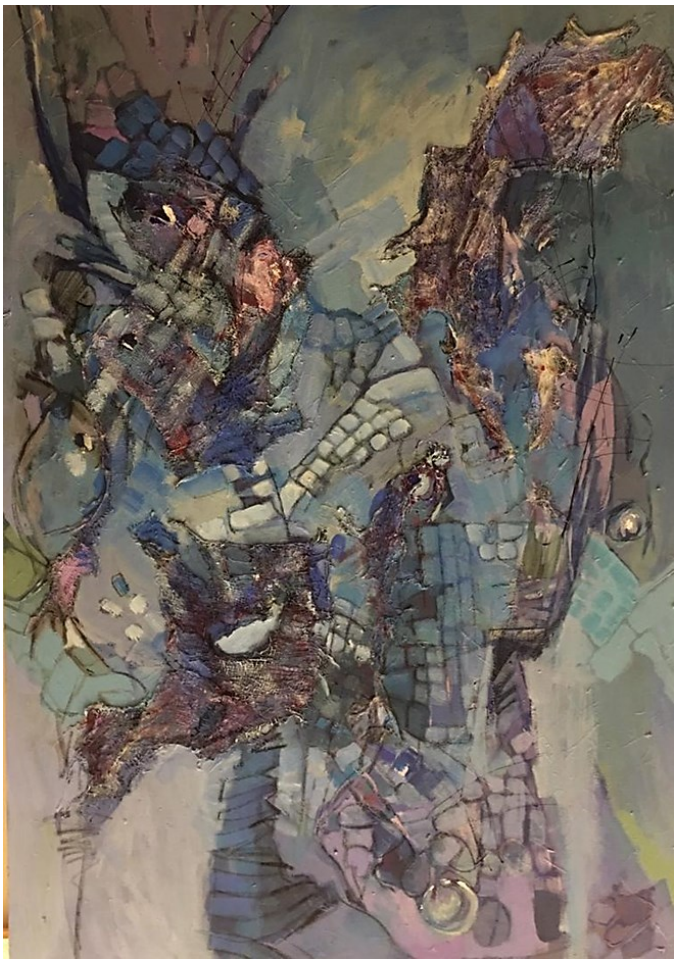

Figure 10. A painting from the Arrest collection: canvas painting, 70x100 cm, mixed media technique using beach sand, bandage (for wounded fishes), gray colors and triangular composition.

Figure 11. A painting from the Arrest collection: canvas painting, 70x100 cm, mixed media technique using beach sand and hemp yarn, colored grays and circular composition to show integration of fish and net and also reproducibility in nature.

this painting and in the rest of the Arrest Collection in order to not only show reproducibility in a painting, but also to remind the audience, the concept of reproducibility in the collection.

In the next painting from the Arrest Collection (Fig. 9), both the trapped and un trapped fishes (with tense memory and a background of bitter repetition) are illustrated. The net is seen with repetitive forms and lines throughout the trap. The inevitably trapped and injured fishes in the net, induce a repetition of the experience of a miserable life to the audience. The circle composition which again indicates the repetition of the event is shown in the painting. Textures, gray color and repetitive forms (fish) can also be seen in this painting (Fig. 9). The color gray which is used in these paintings, is an unemotional color. It is detached, neutral, impartial and indecisive - the fence-sitter, revealing the status of worried and scared fishes in the trap/Moshta.

In the next step (Fig. 10), it was tried to show the disintegrated fishes that are left in the Moshta fishing gear and are eaten by birds and other aquatic animals. By using the triangular combination, it is amid to induce a recurring danger and a kind of violence in the trap. Sand texture, collage with gas and band, gray colors and forms (fishes) are all repeated in this painting to show the reproducibility in the nature (marine environment). In the next painting (Fig. 11), beach sand and hemp yarn were used to create the texture. Reproducibility in Moshta seems to have progressed to the point where fish and net are completely integrated and there is no separate boundary between them. Here, there is no clear form

Figure 12. A painting from the Arrest collection: canvas painting, 70x100 cm, mixed media technique using beach sand to create texture, painting with stencils in some parts, colored grays and circular composition.

(fish) and net, because it must be surrendered to reproducibility in nature. There is a rotation in colors, lines and forms that indicates repetition of the fishing.

In Figure 12, the beach sand and stencils were used to create the texture and the fish body respectively. There is a twist in the Moshta net and fish and it seems that fishes get accustomed to this repetition and consider trapping as part of a biological experience. There is a rotation in colors, lines, and forms that indicates repetition. In the next step (Fig. 13), the net and the fish are completely separated from the background. The fishes are surrendered to this separation which is repeated to them every day. Rotation in colors, lines and forms are seen again in this painting that indicates the repetition. In the last picture (Fig. 14), the thought of portraying this

Figure 13. A painting from the Arrest collection: canvas painting, 70x100 cm, mixed media technique using beach sand and tissue paper to create texture, colored grays and circular composition.

collection which begins with Moshta is illustrated. Moshta is a means of repeating an unfortunate incident for aquatic animals near the shore who are swimming unaware of this trap and are suddenly caught in an untimely event. Repetition of an event that, although provides food for human beings, but it is the end of life for fishes and other trapped aquatic organisms. The image induces an eerie and sad atmosphere.

This paper focuses on the links between Moshta, human and fishes through a series of photographs and paintings to show emotional state and reproducibility concept using some elements (e.g., beach sand, net, bandage, tissue paper and colors). One of the elements is fish. Kind, size, form, color, movement and activity of fishes have inspired painters to create valuable, impressive and unique images. In the present study, these characteristics have been used to express the feelings of the trapped fishes to induce reproducibility concept. Eye size and triangular position of fishes which are seen in these paintings induce a recurring danger and a kind of violence in the trap.

Another important element used in these paintings is color. All architectures and paintings, from prehistoric times to the present time involved some use of color (Meyhöfer, 2008). Colors are all about us and the sheer variety of shades used, for instance in interior decorations, are an indication (Carruthers et

Figure 14. A painting from the Arrest collection: canvas painting, 70x100 cm, mixed media technique using beach sand and fishing net to create texture and collage, cool colors and marine atmosphere.

al., 2010). So, in a deep sense, the architect and painters only ever think in color, builds in color, and huge part of our experience of architecture and art is not as proceeding color from the object but making the color of the object (Kurt and Osueke, 2014). Color is one way to think the whole field of architecture, the same way that ecology is a way to think (see Serra, 2011, Kurt and Osueke, 2014). According to Birren (2006), colors have many emotional impacts, namely, temperature, strong and weak, hard and soft, and active and calm. For hardness and softness, brightness and low saturation create a soft feeling, whereas dimness and high saturation create a hard feeling. Also, weaker contrast and saturation convey calmness as opposed to stronger contrast and saturation, which convey activeness. Warm colors are those that are vivid in nature. Warm colors, such as red and yellow, increase arousal more than cool colors, such as green and blue. The red induces fortunate, fiery and strong feelings (Pamuk and Göknar, 2002). The color gray which is used in the present paintings, is an unemotional color. It is detached, neutral, impartial and indecisive - the fence-sitter, revealing the status of worried and scared fishes in the trap/Moshta. The cool colors, especially blue, are used to show stillness, a sense of coolness and stop which are observed in the fishes trapped in the Moshta. In conclusion, Moshta, a man-made fishing gear is a means a reproducibility concept in nature and hence, brings lights to the creation of different links between fish and fisheries from one hand and art in the other hand.

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