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A Note on Sasanian Glassware and Zoroastrian Sacred Numbers (Sasanian to Post-Sasanian Periods)

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Abstract

The Sasanian Empire was one of the most important periods in ancient Iran and one that experienced flourishing of the Zoroastrian religion. As the official religion in the Sasanian to post-Sasanian period, Zoroastrianism can be understood better by studying evidence of the religion's impact on artifacts such as glassware, coins, silver vessels, pottery, and textiles. This paper shows the importance of "Zoroastrian sacred numbers" on glass fabrication and its impact on a specific type of glassware. Based on his assumption that glassware designs reflect the beliefs of artisans, the author focuses on the number of the facets on the related glassware. To test this hypothesis, the Sasanian glassware is compared to other concomitant objects such as royal necklaces and flower petals used in the Zoroastrian Pahlavi manuscripts. This religion-inspired decorative technique continued into the Early Islamic period, during which Shiism strongly preserved the Zoroastrian legacy in glassware.

Keywords: Sasanian, Zoroastrianism, Sacred Numbers, Glassware, Islamic Period.

Article Type: Research Article

Introduction

The Sasanian Empire (224–651 AD) was one of the most brilliant periods in the history, an era where culture, arts, music and politics linked Iran with other regions. The long history with the Hellenistic borders (the West), and trade relationships with East Asia grew extensively in this period, especially in the late sixth century AD.

The empire's collapse furnished a significant reason for the Sasanian art to strongly impact East Asia (China, Japan and Korea). Migration of the empire's royal family was an important reason for such strong influence (Ghirshman, 1971: 333)[1]. The plethora of Sasanian artifacts discovered in East Asia (China, Korea and Japan) cannot be studied without this historical perspective. This paper will reinforce that claim from a new aspect.

In this paper I reexamine a sample of Sasanian "honeycomb glassware" as a case study. From this new perspective I stress the relation between the pertinent facets (geometrical patterns) and "Zoroastrian sacred numbers." I show that the Zoroastrian religious technique started in Iran's mainland and impacted East Asia following the collapse of the Sasanian Empire. This study shows the strong relationship between religious beliefs and glassware designs over a vast geographical area. However, I believe that the sixth century AD was the most significant period for the use of this technique on the glassware; the technique can regularly be seen on the objects.

I will refer also to Islamic examples to demonstrate clear continuation of this decorative technique on glassware in the post-Sasanian periods. I will stress that this "religious technique" (or a "technical tradition") transitioned uninterrupted

[1]Yazdgird, the last Sasanian monarchy, was defeated by the Arabs in 651 AD. His son, Firuz, along with thousands of artists, musicians, generals and other companions migrated to China. The Tang Emperor Gao-Zong accepted him as the legitimate king of Persia and supported him against the Arabs. This migration left a significant artistic impact as Sasanian art strongly affected China and its neighbors.

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from the Sasanian to the early Islamic periods.

For this purpose, I cite published catalogues from museums in China (Anonymous: 2010), Korea (Silla Meets West Asia: 2007; also my photos) and Japan (Nara) (Fukai 1992), and my photos of the objects taken in these Iranian museums: the National Museum of Iran, the Abgineh (Glass) Museum (Tehran), the Azerbaijan Museum (Tabriz), and the Shahr-e Kurd Museum.

Sacred Numbers in Iran

Iranians use of the "sacred numbers" probably dates to Indo-European periods. The social and geographic circumstances of Indo-European tribes as well as contact with native peoples during their historical migrations can be considered significant factors for such beliefs in the ancient world (Martinez and De Vaan 2014, "Preface"). Many scholarly works have been recently published about sacred numbers based on Zoroastrian texts (Dustkhah, 1991: passim), the Royal Inscriptions, and some of the bas-reliefs (Lecoq, 2002: 182–185). Mole (1993), Hinnells (1993), Gnoli (2004: online) and other mythologists frequently referred to Indo-European impact on ancient Iranian beliefs. They cite, for example, social triple castes as an archaic factor which reflected in Zoroastrianism and created the holiness of the number 3. Despite the popularity of the number 3[1], the numbers 5[2] , 6[3] and 7[4] were very important in Zoroastrianism. Based on the Zoroastrian texts, it is possible to refer to other sacred numbers such as 9[5] , 10[6] , 12[7] , 14, 15[8] , 21[9] , 30 [10], 40 [11], 50[12] , 72[13] … as a part of the belief[14]. There are numerous examples of sacred numbers in Zoroastrianism, most of which likely date to the Indo-European periods.

Duality was a fundamental part of the Zoroastrian doctrine. In this light, we can understand that numbers can carry both positive and negative connotations. This is clearly seen in the Avesta texts where words and terms (chang and dast) are "devic" (negative) or "Ahuric" (positive). Numbers that are associated with the archaic calendar, social casts, astrology and zodiacs, mythological geography and governance have been depicted as sacred. Especially important are the duality of numbers from various chapters of the Avesta, and those associated with the world after death.

Sasanian Glassware

Uninscribed archaeological evidence can be considered the most important research materials to understand, analyze and re-study ancient beliefs. Sasanian glassware had been variously used for normal daily life, decoration, cosmetics and religious purposes. Glassware in blue, green, yellow, white and other colors has been discovered in Iran and nearby territories. The "honeycomb" pattern is perhaps the most distinctive style in this category of work. In addition to the honeycomb pattern, the depression and appendages techniques are frequently seen on glass and pottery finds.

There are two basic questions about honeycombs in this paper: did the numbers of the facets represent a religious or purely artistic structure? How much did the beliefs of the artisans affect creation of the facets?

A review of reports on Sasanian glassware and other similarly decorated objects such as potteries reveals this technical point: the interrelationship between the creators' belief (or the official religion of the Sasanian period) and decoration of the objects has been overlooked on previous finds from

[1]Tistar. no. 18–22 (Dustkhah, 1991: 333–334).

[2]Five Gahans (Dustkhah, 1991: 1079); Bahar, 1986: 41.

[3]Six Holy Immortals; Bahar (1986: 38-50): Ohrmizd created those Six Holy Immortals that they are Seven (creatures) including him; Six type of creatures created by the God: Watre, Sky, Earth, People…The God created the world in six specific periods (times)…

[4]Avesta (Haft Yasht/12: we worship who fight against enemies of Mazdian religion with supports of Seven Holy Immortals. Also: Seven Yashts; Seven goodness; Seven Salutes; Seven countries; Seven Skies; Seven kings, Seven Zodiacs and etc. (cf. Dustkhah, 1991: 284, 277, 290, 298-340; Tafazzoli, 1997: 28).

[5]Khordad Yasht (Dustkhah, 1991: 294); Bahar (1986: 35): Ohrmizd proposed Ahriman to determine a conflict for nine thousand years…

[6]cf. Tishtar. 24–25; Hormizd Yasht (Dustkhah, 1991: 335, 278; also, Haftan Yasht and Khordad Yasht).

[7]Bundahish, 1986: 36, 41, Passim.

[8]Tishtar. 13 (Dustkhah, 1991: 332); MU 15. 211.

[9]21 Yashts of Holy Avesta or Holy pray with 21 words (also Appendix).

[10]Bahar, 1986: 41.

[11]Aban Yasht. 3 (Dustkhah, 1991: 298).

[12]Tishtar Yasht. 55 (Dustkhah, 1991: 307).

[13]72 Ha/ts of Yasna.

[14]Apart from the texts and objects, there are numerous flower designs with 3, 5, 6,7,9, 12 petals among the folios of the Zoroastrian manuscripts (K4 MS, D 90, R 11) where they have been changed to dots (as full stops or in the beginning of the lines to fill out spaces).

Fars, Khuzistan, Ray and Gurgan in Iran. This is also true for reports on items found in parts of the Central Asia, Xinjiang, Ningxia, and Shaanxi etc. in China[1](Anonymous, 2010: 88, 172, passim), Nara in Japan and finds from king's tombs in Korea Republic's Gyeongju region (National Museum of Korea, 2007: 78).

Zoroastrian Sacred Numbers and Sample Glassware

I selected the following honeycomb glassware to study the number of the facets. The example in (Figure. 1) has five double circular facets. I personally counted the facets with the help of the Azerbaijan Museum's curator.



Figure. 1: *Sasanian glassware with five double circular facets. (After: Azabaijan Museum).*

In Figure 2, the object from the Abgineh Museum, Tehran show five circles in the upper and six overlapping ovals in the lower body.

The piece in Figure 3, a footed bowl probably from China, bears nine face-cut protruding knobs in the upper row and five in the lower one, not counting the single appendage that forms the base.



Figure. 2: *A vessel with "five" circles (upper body) and "six" ovals (lower body), representing the two sacred numbers in ancient Iran. (After: Abgineh Museum).*

[1]It means that only the objects from the Tang period.



Figure. 3: *"Nine" and "five" protruding knobs. (After: Anonymous, 2010: 88).*

The bowl in Figure 4 is decorated with a row of six circular patterns formed through double faceting



Figure. 4: *A bowl with "six" circular double facets, with six being a popular number in Zoroastrianism. (After: Abgineh Museum).*

Figure 5 shows a Sasanian glassware design that reflects the number seven.

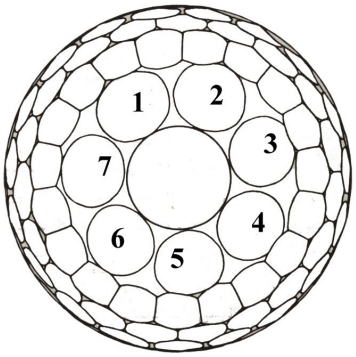


Figure. 5: *A design of the glassware with 7 facets. The number seven is the most sacred number in Zoroastrianism. (After: Fukai, 1992: 54).*

A piece from the National Museum of Iran (Figure. 6) highlights the number fourteen at the upper row and seven at the bottom.



Figure. 6: *"Fourteen" facets in the upper body and "seven" at the bottom. (After: National Museum of Iran).*

A seven-petal design occurs on a piece of glassware (Figure. 7) from Nara (Shosoin Collection).



Figure. 7: *A glassware with a flower with "seven" petals. (After: Fukai, 1992: 38).*

A piece of Sasanian glassware (Figure. 8) with five larger facets above a row of six shallow facets in the lower half of the vessel is kept at the Gyeongju National Museum, Korea (Silla Meets West Asia, 2008: 78).



Figure. 8: *A glass vessel with rows of "five" and "six" facets, reflecting the two sacred numbers. (After: Gyeongju National Museum, photo by author)*

A piece on display at the Abgineh Museum (Figure. 9) underscores the number six, while another piece from the same museum (Figure. 10) has a body embellished with five facets in the upper and six facets in the lower row.



Figure. 9: *A glass object from the Abgineh Museum that reflects a Zoroastrian sacred number (viz. "6").*



Figure. 10: *A glassware from the Abgineh museum with rows of "six" and "five" facets.*

In the piece illustrated in Figure 11, a honeycomb pattern was accomplished by a row of ten circular facets encircling the upper body and another of five similar facets at the mid-body.

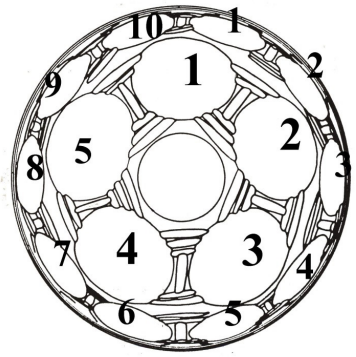


Figure. 11: *A glass piece from Rudbar, Gilan, reflecting the sacred numbers 7 and 10. (After: Fukai, 1992: 62).*

On the piece in Figure 12 from the Abgineh Museum, three rows of 9–10 circular patterns girdle the central body.



Figure. 12: *A glassware with 9–10 facets. (After: Abgineh Museum).*

A charming design consisting of nine circular patterns decorates another glass piece at the Abgineh Museum (Figure. 13). The number nine is also attested on a clay model of a fire-temple (Figure. 14) from Uzbekistan.



Figure. 13: *A glassware showing 9 circular patterns (pearl design?). (After: Abgineh Museum).*



Figure. 14: *A clay fire-temple reflecting the number "nine" in the number of the pearl motifs in relief*
(After: National Museum of Korea, 2009: 129)

The number ten is clearly seen on the king Hormizd II's pearl necklace in Figure 15.



Figure. 15: *The pearls on the king's necklace reflect the number ten. (After: Reza Abasi Museum, photo by author).*

The royal bust in Figure 16, deriving from Iraq, supports the numbers fourteen (7+7) as well as nine.



Figure. 16: *Shoulder strips reflecting the sacred number fourteen (After: Paris Musees, 2007: 53).*

The necklace and pearl chain on Hormizd IV's shoulder in Figure 17 highlights the numbers nine and fourteen.



Figure. 17: *Shoulder strips (9), necklace 14 pearls (After:Reza Abasi Museum, photo by author).*

From Dunhuang comes an object (Figure. 18) that contains 6+6+6+6 = 24 pearls, a number that is important in the Iranian calendar.



Figure. 18: *24 pearls (an artistic style that influenced China strongly) (After:Saint-Petersburg Museum, photo by author)*

A glass bowl at the Shahr-e Kurd Museum (Figure. 19) sports a honeycomb pattern that is formed by fifty overlapping circles in four rows.



Figure. 19: *A decoration on a glassware inspired by the sanctity of the number 50. (After: Shahr-e Kurd Museum).*

Furthermore, Fukai (1992) speaks about several private collections of glassware without mentioning the possible interrelation between the numbers of their ornamental facets and Zoroastrianism. A piece published by Fukai (1992: 78, Figure. 3) seemingly bears six or seven facets, numbers that both are valued in Zoroastrianism (see also pp. 62, 65, 68, 69).

With the fall of the Sasanian dynasty, this sacred tradition was clearly not only preserved in the Islamic era but was also strongly retained by Shiism. The sacred character of the numbers 3[1] , 5 [2], 7[3] , 9 [4], 12[5] , 15[6] , 30[7] , 40[8] , 72[9] , etc. in Shiism, as a legacy of Zoroastrianism, can be cited as a corroborating evidence for the claim.

The twelve zodiac symbols on a cylinder seal at the National Museum of Iran dating to 14–15 AD (Figure. 20) has been interpreted as symbolizing the 12 Shiite Imams. (The central inscription on the seal includes a Quranic verse)[10].

Figure 21 shows a golden pendant from the 19th century AD inlaid with seven pearl stones[11].



Figure. 20: *Sacred number 12 attesting to the perpetuation of the tradition in the Islamic centuries. (After: National Museum of Iran).*



Figure. 21: *Sacred number seven continued in use in the Islamic period. (After: National Museum of Iran).*

[1]cf. Belief in three persons: Ali, Fatima and Mohammad; belief in three groups (prophets, scientists and martyrs) who can do intercede in the other world according to Shiism.

[2]It reflects a most basic belief of Shiism i.e., "holy five persons" (Mohammad, Ali, Fatima, Hassan and Hossein).

[3]Seven Imams or Ismailism; also, Seven Skies.

[4]Radicals' belief in this age for marriage of the girls as an old (Islamic) tradition.

[5]A most know belief in Shiism, 12 Imams.

[6]Belief in marriage for the boys.

[7]A part of Zodiac and official calendar now.

[8]Funeral 40th days, after the death.

[9]Entangled with Imam-Hossein, Karbobala.

[10]National Museum of Iran, 2012: 86.

[11]See: National Museum of Iran *(Selected Silver and Golden Objects)*, n.d.: 86.

Discussion

Holy numbers played an important part in Zoroastrianism dating back, most probably, to Indo-European periods. However, the impact of Zoroastrianism on object decoration has never been studied. It seems that the advent of this technique can be attributed to the six century AD. While, the use of some specific numbers (i.e., 12 petal flowers) existed since the Achaemenid period, this technique of using sacred numbers began to be used regularly on objects by the sixth century AD Sasanian artists[1].

Yet, glassware embellishing provided an opportunity for artisans to express their beliefs. Zoroastrian artists knowingly incorporated religious elements into the techniques of glassware manufacture. This incorporation can be seen from the south to north (all parts) of Iran, from radical kings to moderates! In this process they widely reproduced sacred Zoroastrian numbers on their products. For this purpose, they profited from easily available materials such as glass, pottery, silver and clay. The numbers used depended on the space; most of the objects, especially glassware, allowed two or more sacred numbers, based on the form and space, in two, three or more rows.

The number 'three' is rooted in the Indo-European social caste system that placed people into three castes (Molé, 1993: 39). This caste system became one of the most important structures of Zoroastrianism. The three social castes, kings-heroes, priests and common folk (farmers) can reflect holiness of the number three. Also, in the creation of the world, the god Zurvan, Ohrmazd (good) and Ahriman (evil) played a role according to Zoroastrianism. Additionally, fundamental doctrine of Zoroastrianism is represented with "good thoughts, good speech, good deeds." It means that we are able to explain sacred numbers, one by one, based on the texts (mythology).

As many objects with eight facets or patterns have been reported from the Greater Khorasan region[2], the author raises the question as to why the number eight was not among the sacred numbers in the Zoroastrian glassware legacy?

However, there are traces in Zoroastrianism that four can be an important number[3] and the sum of two fours is eight. Meanwhile, I believe that such artistic style with eight facets (glassware) cannot be related to this issue or Hellenic legacy.

Clearly Buddhism has a long-entangled history of contacts with Iran through the Silk Road. Since the last century numerous scholarly works have been published about Sogdians and Manichean Buddhists and their relations with Buddhists from the Central Asia to China. However, the number eight frequently appears as "8 rays" of a bright halo around Buddha's head in Manichean painting art (Gulacsi, 2001: 147). Naturally, eight petal lotus, as the seat of Buddha, can be seen in Manichean and Buddhists paintings (Anonymous, 2010: 214).

Also, the term Hašt Behešt, which means "eight heavens," can be interpreted as a legacy of Buddhism in Persian texts. Hašt Behešt is a well-known name for a series of works in Persian literature! In addition to the texts, Hašt Behešt Palace from the Safavid period in Isfahan might corroborate the claim. Iran under the Safavids maintained very good relations with China, as is evidenced by over 1000 pieces of porcelains stored at the National Museum of Iran. Meanwhile, some scholars referred to Čihel-Xāna (forty caves, 25 km east of the city of Borazjan, Bushehr Province) as a Buddhist heritage in southern Iran (Ball, 1976: 103)!

Therefore, citing some objects containing eight decorative facets (mostly deriving from Great Khorasan, not southern Sasanian borderland i.e., Fars) will by no means seem strange[4].

Conclusions

Obviously, the Sasanian rule marked a glorious period in the history of culture, arts, architecture, and political and cultural links with remote and neighboring regions. The Sasanian period, especially in the 6th century AD, was not only characterized by the flourishing of arts but also by the peaking of the technique of producing artistic glassware. However, the legacy of Zoroastrianism, as official religion, can be seen in most of the Sasanian heritage[5]. The

[1]More than twelve thousand Mazdakites massacred by the king and probably his father as the texts mentioned (Yarshater, 1983: 991).

[2]It seems that it did not have a positive aspect in Avesta; see: Dustkhah, 1991: 318). It was probably a Mithraic legacy in ancient Iran!

[3]cf. the four Kust (districts), the four horses of the goddess Anahita.

[4]I would like to refer to Kroger (2006: 133) who cited an "octagonal" plate where "eight" figures (4 Senmurvs and 4 herbs), from Northeast Iran. The number 24 Senmurvs (margin) is notable

[5]One might ask whether the Zoroastrian artists acted freely in the production of their products. Although it is possible to obtain information about the status of social classes in the Sasanian period from the inscriptions and even the Shahnameh, the type of activity and the scope of occupations remain unanswered.

produced objects represent a significant media for the Zoroastrianism propaganda. The sacred numbers were one of the important propaganda devices in this regard. Although the artists were free to use such numbers on glassware, this was presumably not feasible in coin minting.

Depending on the space and materials, sacred numbers like 3, 5, 6, 7, 9, 12… are preserved in the ornamental facets from the top to the bottom of the glassware. The facets tend to take circular, octagonal and sometimes rectangular forms.

Nevertheless, this religious technique or tradition impacted the Islamic era as well. Iranians carried this Sasanian heritage into Islamic periods, most probably as a part of their artistic identity. It means that this technique affected parts of the Islamic world with the demise of the Sasanian dynasty. Obviously, Shiite glassware preserved these sacred numbers in new forms. Elements of Sasanian legacy like sacred numbers continued into Shiism and can be interpreted as a "red line" between Shiite and Sunni.

Also, with the fall of the Sasanian Empire, China not only welcomed Firuz, the son of Yazdgird, and his companions (political refugees), but it began to serve as a bridge between Iran and other territories like Korea (Pulleyblank 1991: Online; Akbarzadeh 2014: 7). It seems that the residence of Iranian artists, in the wake of this event, in the East of Asia, is a notable factor in the expansion of decorated sacred number technique on the glassware in this region. Most probably some of them were created in the East Asia regions thereafter.

In fact, Zoroastrian sacred numbers have been immortalized in glassware and continue until the present thanks to the new social and religious circumstances of Iran! If the Sasanian Empire was founder of such regular religious technique/tradition in the glassware, the "newly arrived" Arabs were central to the perpetuation of those traditions and techniques in the subsequent centuries.

Nowadays, traces of those sacred numbers like 3, 5, 6, 7, 12, 72…can be seen in architectural elements from the shrines (i.e. seven gates) to ordinary residencies, from the funeral ceremonies to the religious practices in all part of Iran!

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