

Sacred treasures as cultural text and “Symbol of new life”

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Abstract

This research paper focuses, first, on semiotic status of the “Sacred Treasures” of Japan, i.e. “Sanshu no Jingi” (三種の神) (hereinafter referred to as - Sanshu no Jingi), which symbolize a divine origin of imperial power, and second, how this concept has been actualized in collective memory of Japanese people in the second half of 50-s of XIX century as a symbol of “new life” or the so-called “ideals of new life” during the postwar economic restoration of Japan. The methodological basis of research is presented by one of the basic principles of semiotics, according to which the texts of culture are considered as “texts” that formed by means of signs. The identification of their meaning (semantics) makes it possible to fully understand the meaning of the text. In particular, by considering the expression “sacred treasures” as “cultural text”, we refer to such semiotic categories as “scope of sign”, “invariance of symbol” proposed by Yuriy Lothman (1992) and “denotation shift” that is illustrated in “Frege triangle” (Frege, 1892). This paper highlights that sacred symbols constitute the cultural core of any nation and the context of its application can be quite broad. Accordingly, the symbols can be actualized in the collective consciousness in various “sign situations”, for instance, in crisis, transitional periods in order to overcome or construct a certain “reality”, as in the case of postwar Japan.

Key words: imperial Regalia, cultural text, semiotics, sign system, invariance of symbol

Introduction

As S.A. Arutyunov and N.L. Zhukovskaya (1987) and highlight, at the root of patriotism of any nation we shall find certain symbols that have a great significance and associated with the most important historical events of the nation, therefore, these symbols are to be rightly regarded as a sacred one.

Accordingly, the sacred symbols serve as a tool for maintaining “special emotions”, and as a kind of eloquent witness for certain historical events, too. Moreover, sacred symbols, relics, which form the cultural nucleus of a particular society, can be transformed depending on the context, meanwhile, they can also transform the society in different contexts as well, as we shall see further in case of Japanese sacred symbols.

This paper focuses, first, on the semiotic status of “Sacred Treasures” of Japan, i.e. “*Sanshu no Jingi*” (三種の神器) (hereinafter referred to as - *Sanshu no Jingi*), which symbolize a divine origin of imperial power, and second, how this concept has been actualized in collective memory of Japanese people in the second half of 50-s of XIX century as a symbol of “new life” or so-called “ideals of new life” during the postwar economic restoration of Japan.

The methodological basis of research is presented by one of the basic principles of semiotics, according to which culture is considered as “text” that was formed by means of signs. The identification of the meaning (semantics) of these “signs” makes it possible to fully understand the meaning of “cultural text” as well allows to interpret the signs of culture and reconstruct the process of their semantization and actualization in the collective memory.

Research Methodology

The properties of symbols for “vertical self-reproduction” in various contexts was considered by Y. Lotman (1992), the founder of Moscow-Tartu School of Semiotics, who states that, “Symbol goes behind semiotic environment and easily enters into a new textual environment. This is connected with its essential property: symbol never belongs to any single synchronous culture, it always percolates synchronous culture vertically, coming from the past and going into the future. The memory of a symbol is always older than memory of its non-symbolic textual environment (Lotman, 1992).

In addition, we should mention the dualistic nature of symbol that can be explained by uncertainty between the “notion” and its “content”, which in its turn expresses the “invariance of symbol”.

By notion of “sign” (symbol), we mean an object (real or imaginary, such as an abstract concept) that carries a certain “meaning” in various sign situations and requires interpretation.

We use the notion of the scope of the sign, which expresses a large cultural and semantic property of symbol when semantic meaning of a particular sign can be much wider than its notion.

In addition, we shall refer to a semiotic concept as “denotation shift”. This term was introduced by German mathematician and logician G. Frege (1892) and is most graphically demonstrated in the so-called “Frege triangle” that illustrates a dual nature of sign (Frege, 1892) (see Figure 1).

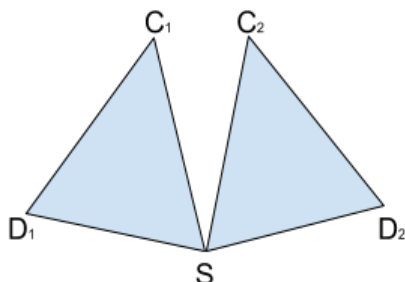


Figure 1: The Frege triangle. Triade: Sign (S), Concept C, Denotation (D).

As G. Frege (1892) notes, direct meaning of a sign is objective, while its transitional meaning can be both objective and abstract (i.e. significative). In both cases, by identifying with a direct meaning, transitional meaning shall be endowed with all its basic properties (Frege, 1892).

In any act of communication, it is important to understand meaning of the “text” as well as to recognize a “signified”. Since there is a word written or pronounced, and there is also an image of the word in the mind of the bearer of certain language tradition, which allows to recognize the word in its different forms and expressions (Plokhotnyuk, 2011).

Therefore, we shall focus not only on semiotics of “signifier” (including, semantics), but also on the process of “semantification”, i.e. signification. Since the culture and history of any nation constitutes not only an established “worldview”, but also presents an endless process of constant development and transformation.

In this regard, by considering sacred treasures of Japan as “cultural text”, we shall, first, consider semiotic status of “Sanshu no Jingi” as symbols of imperial power, then discuss the process of self-reproduction of the symbol, i.e. demonstrate how the

concept of “Sanshu no Jingi” has been actualized under the conditions of Japan's rapid postwar economic development, and then, lead to discussion and conclusions.

Results

3.1. Etymology of “Sanshu no Jingi”

“Sanshu no Jingi” is widely known as three sacred treasures of Japan, but if we look at the etymology of this notion, one can find difference between translation of Japanese-Chinese reading of hieroglyphic inscription of term “Sanshu no Jingi” (三種の神), and its generally accepted translation.

In Sino-Japanese reading, this hieroglyphic complex is translated as “divine utensils of three kinds”, as in Japanese reading “Mikusa no Kami no Utsuva”, it is also translated as “Divine utensils of three kinds” (Feldman et al., 2002).

However, it is commonly accepted to use another interpretive reading of this hieroglyph, in particular, as “Mikusa no Kami no Takara” (shorter reading: Mikusa no Kandakara), which means “Divine treasures of three kinds”, since the hieroglyph 三種の神器 has no meaning of “treasure”. Therefore, the interpretive reading of hieroglyph as “treasure” is an exceptional translation, and it has become conventional meaning of this term.

3.2. Semantics of “Sanshu no Jingi”

The most earliest information on sacred treasures are given on the pages of the most ancient written monuments of Japan, like Kojiki (古事記- Record of Ancient Matters) and “Nihon Shoki” (日本書記, or Nihongi 日本記 - Annals of Japan), mythological chronicles, compiled in VII-VIII centuries.

According to legend, once God Susano, when he visited the Kingdom of Sun Goddess Amaterasu, caused her a lot of trouble. Amaterasu got scared and retired within the heavenly rock-grotto. From that time on, the World was plunged into deep darkness. Alarmed by the situation, the Gods decided to lure out Amaterasu back into the open world with the help of jasper jewel, mirror and white robe hung on a tree and began to call out Amaterasu from dark rock-grotto in chorus. The Goddess Amaterasu getting enchanted by her reflection in the mirror, allows to pull her out from the rock-grotto, and as legend narrates, the sunshine was returned to the world (Chamberlain, 2005). God Susano presented later the magic sword Kusanagi to Amaterasu as a token of apology. Subsequently, Amaterasu handed to her grandson Ninigi no Mikoto all these items - jewel, mirror, and sword, when he descended from Heaven to Earth to rule the country of Izumo (Japan). Ninigi is the great-grandfather of the first legendary Emperor of Japan Jimmu-tenno (660-565 BC) (“tenno” means “Heavenly Lord”). Since 690, handing out of sacred regalia has become culmination of enthronement ceremony in Japan. This legend has laid foundations for the start of the history of sacred treasures in Japan.

Returning to semantic meaning of sacred treasures, we shall adhere to the order as these sacred items were mentioned in Kojiki and Nihon shoki, i.e. jewel, mirror, and sword (see Figure 2).



Figure 2: Sacred Regalia of Imperial Power in Japan. Retrieved from: <http://www.bujinkan.com.ar>

The first sacred treasure is presented by jasper jewel (Yasakami-no Magatama), which is considered to be the oldest of all three sacred treasures.

In folk tradition, sacred jewel is represented in the form of jasper stones, oblong in the shape and slightly curved on one side. Beads that were made of such stones, were called “magatama”, which existed in Japan from ancient times and were often found in burials. The sacred jewels are also credited with religious meaning. The Japanese people traditionally regard magatama as a symbol of human spirit.

Shogoro Tsuboi (1863-1913), one of the founder of Japanese anthropology and archeology, by interpreting the symbolism of sacred jewel, states that the prototype of magatama may well be regarded as the tooth of a wild beast, which was worn as a trophy and an amulet in ancient Japan, however, as he suggests, the magatama found in burial mounds is very similar to the Moon in its shape.

In this connection, Shogoro Tsuboi, by analyzing the scene of extraction of Sun goddess Amaterasu from rock-grotto, states that the goddess was invited back into the open world by symbols of two luminaries - the Sun and the Moon, i.e. mirror and jasper (Saito, 1971).

Second sacred treasure is the bronze mirror “Yata-no kagami”. In Japanese culture, mirror is symbolized with wisdom and justice. At the same time, mirror is recognized as an embodiment of Sun Goddess Amaterasu. There is a belief that Amaterasu’s soul is stored in the mirror.

E.A. Kuznetsova (1997) points out that the cult of mirror in Japanese tradition combines several religious and mythological traditions, like solar cult of ancient population of Japan, the veneration of mirror as a magical object, which goes back to mainstream shamanistic ideas, and mythology of Japanese national Shinto religion, recorded in the VIII century AD.

Third sacred treasure is presented by sword. A special cult of sword in Japan is well known. Swords were found even in the ancient barrows of Yayoi era (200 BC - 250 AD). In ancient times, according to A.N. Meshcheryakov and M.V. Grachov (2010), swords were buried in the ground, along with other objects like bell, and were presented to community only during ritual action.

In Japanese culture, swords are regarded as objects that have magical properties, and it is believed that they can move in space, heal diseases, and also protect their owners that can be evidenced in mythological and folklore narrative. For instance, Nihon shoki tells the story of how the Emperor before his death decided to change the place

of storage of the sword from Temple to the Palace, since according to the predictions, it was said that the illness of the Emperor had been caused by the sacred sword (Yermakova, 1997).

Kitabatake Tikafusa (1293-1354), a Japanese court noble, warrior and writer of the 14th century, writes in *Jinno Shotoki*, “Record of the Orthodox Transmission of Gods and Sovereigns” that “since ancient times, the Heaven and Earth does not know change; the Sun and the Moon does not stop shining; longer and further with three sacred treasures in the world, the Imperial throne is eternal ...”. (Varley, 1980). Moreover, Kitabatake Tikafusa interprets sacred treasures as Sun, Moon, and stars, and identifies mirror with the yardstick of wisdom, sword with courage, and jasper jewel with generosity and benevolence, thereby giving them an ethical dimension.

However, E.M. Dyakonova (2002) argues that sacred regalia of Imperial family represent a “triple unity” of Sun, Moon and lightning, since, in ancient times, the sword was associated with lightning, as can be evidenced by frequent representation of the images of mythical deities with such attributes as sword and blade.

Meanwhile, A. Yoshida (1977) by further developing the “Trifunctional hypothesis” proposed by French comparative philologist Georges Dumézil (1997), considers that these three sacred items has been introduced to Japan through Koreans, along with the gift-symbols mythology of Indo-European peoples, including Kazakhs, which expresses three basic functions of society: sacred, military and economic. In this regard, Japanese people, has experienced influence of Scythian ideology (Yoshida, 1977).

Sacred treasures of Japan, endowed with a symbolical meaning, comprise one of the most mysterious regalias in the world, and history still lacks reliable information on how they really look like, and about who had the chance to witness the sacred treasures, and where they are located exactly. However, despite these facts, it is believed that the sacred sword is kept in Atsuta Shrine in Nagoya; jewel - in the Imperial Palace in Tokyo; and the sacred mirror - in the Ise Grand Shrine, in prefecture of Mae.

As D.L. Miller (2004) writes, during the last days of World War II, Emperor Hirohito was more concerned with evacuation of mirror, sword and jasper jewel to a safe place, than with fate of the whole country. It can be seen from the documents dated on July 25 and 31, 1945, which evidence how the Emperor insistently demanded to save Imperial Regalia “at all costs” (Miller, 2004).

The cult of sacred regalia of imperial power is still strong in Japan, though there are still many blank spots in historical knowledge concerning the authenticity of sacred relics. These sacred items serve as an indispensable attribute of Japanese enthronement ceremony. As it can be illustrated by the ritual practice of using these attributes - mirror, jasper jewel and sword, attached to a high pole and decorating of pole with the branches of sacred Sasaki tree, which is used as an embodiment of World Tree (Feldman et al., 2002).

All this confirms a high semiotic status of sacred treasures, and provides certain understanding of its actualization in collective memory during the years of economic revival of Japan after the II World War. Semantics of the notion “Sanshu no Jingi” in its new content will be discussed below.

3.3. Sanshu no Jingi as a symbol of new life

In the late 50s, when Japan had been experienced a period of deep economic transformation, the concept of “Sanshu no Jingi” was actualized again. In a new sense, the “sacred treasures” were presented in the form of three sets of household electric appliances, also known as “san setto” (三セット), i.e. three sets, which

comprised different categories of electric appliances along with further development of electronic technology in Japan.

The very first set of “sacred treasures” included black and white TV, refrigerator and washing machine, and then, in subsequent years, the set composition has been changed, accordingly, as “color TV, air conditioner and car”, “flat screen TV, digital camera, and DVD player”. This series can be continued further, as Japan has gradually become a world leader in production and export of high-quality electric equipment, which has been rapidly popularized not only within the country, but all over the world.

With a catchy name of the “three sacred treasures” that originally denoted the sacred regalia of the imperial power, these electric appliances had been widely advertised in Media as essential items and a symbol of “new life”, therefore, it has become an embodiment of the ideals of a new, Dream life, and to some extent, new consumption habits.

Consequently, the term “Sanshu no Jingi” has began to denote the symbol of wealth and prosperity in Japan, thanks to the export of which, Japan managed not only restore its economy, but also take the second place in the world in terms of economic development.

In 1956, the Japanese government officially declared completion of postwar economic reconstruction. Three sets of electric appliances - “black and white TV, washing machine and refrigerator” were officially announced as country’s sacred treasures “Sanshu no Jingi” (see Figure 3). In addition, it was also officially proclaimed that everyone can afford to buy “Sanshu no Jingi”, if they make proper efforts and work hard.



Figure 3: Sacred treasures as symbols of “New Life”. Retrieved from <http://blogimg.goo.ne.jp>

At the end of construction of the Tokyo Tower in 1958, and the family boom that began in the country, the sale of electric appliances reached its peak. As it is known, the Tokyo Tower was built as a symbol of successful completion of postwar economic reconstruction in Japan. Followed by the family boom, “Sanshu no Jingi” that represented electronic appliances has become an essential part of every bride’s dowry.

In this regard, it is interesting to note the statement of N. Inose (1991), a famous Japanese journalist, historian and social critic, who points out that, Japanese people did not have any concept of household furniture (technique) (Kagu 家具) before, rather they had a traditional concept of Dōgu that was referred to household tools, like tea box or a set of needles. As N. Inose (1991) writes, the traditional Japanese bride's dowry included mostly only these items. And the new electric equipment, which was popularized as sacred treasures "Sanshu no Jingi", has greatly changed the way of life of Japanese people, thereby these items has become an integral part of every Japanese family and influenced to the development of the concept of Kagu in Japanese culture (Inose, 1991).

Incredible success in the economic development of Japan is associated with the name of Konosuke Matsushita, a great innovator and manager, who is revered in Japan as "God of Management". It is considered that this very man changed the way of life of Japanese people surrounded by electric appliances, with his concept of turning to an inexhaustible resource, like water, any electric equipment manufactured in country. Thus, the term "Sanshu no Jingi", which designates imperial regalia, by incorporating a new meaning, has occupied a firm place in everyday life of Japanese people, by becoming the symbol of new life.

Therefore, the concept of "Sanshu no Jingi" implies in fact both sacred and profane items, which do not diminish its symbolic significance.

Discussion

Accordingly, the actualization of the concept of "Sanshu no Jingi" in collective memory of Japanese people in postwar Japan is not at all accidental, as evidenced by great semiotic status of sacred treasures in the history of country and national self-consciousness of Japanese people. To prove our statement, we shall further consider events and socio-political mood of that period in Japan in order to reconstruct the process of semantization of the notion "Sanshu no Jingi" in its new content.

After the defeat in World War II, Japan was in a state of deepest crisis, completely demoralized, lost faith in the ideals of "Kokutai" (国体), when the country was literally plunged into a deep depression, economic recession, unemployment and poverty, along with rise of sharp criticism against imperial system, by accusing the authorities of getting involved in the war, and subsequent defeat of Japan.

At the same time, the occupation authorities, headed by MacArthur, which feared any manifestation of the so-called "mysticism" in Japanese culture, tried to destroy any symbols and rituals of militaristic regime, by forbidding even the use of terms connotation of which was considered to be linked with Shinto, militarism and ultranationalism (USSBS, 1947).

Japan faced the need for a radical review of the old way of development under the influence of growing internal crisis, as well as the occupation authorities. In such conditions, Japan had to re-construct its national identity and find the ways to restore the economy and statehood.

The beginning of Japan's postwar development is associated with the name of Yoshida Shigeru, who saw the way out of the crisis in building an alternative concept of Japan's development based on postwar economic reconstruction and improving of country's well-being.

The Yoshida doctrine underlies Japan's foreign policy since the early 1950s, which allowed Japan to take its place as one of the world's leading economies. This doctrine is regarded in scientific world as a "policy of economic nationalism", sometimes referred to as "the policy of practical nationalism" (Pyle, 2008), the essence of Yoshida doctrine stated the development of Japanese economy under the roof of the US nuclear umbrella (McVeigh, 2004).

At the same time, authorities tried to find ideological links between prewar and postwar Japan, i.e. from the concept of “Kokutai” to a new “peaceful state”, so-called “Heiwa kokka”, by adopting such fundamental principles as loyalty and national unity of Japanese people, in order to build a new state with a strong economy.

According to A. Yoshida (1977), American economic assistance and the “nuclear umbrella” had become a kind of “Gift from the God” for Japan of those years, contributing to the country's rapid economic growth.

In a record short time, the Japanese government managed to find an effective way of development and ensure high economic growth rates by the second half of the 50s.

Moreover, it should be noted that the accelerated economic development of country not only allowed Japan to restore its economy, but also to become the second world economic power after the United States. Japan has maintained this position for 40 years, since 1968, prior to 2010 when China has surpassed Japan in terms of economic power.

V. Ovchinnikov and O. Zhigarkova (2004) explain success of Japanese postwar economic reforms as follows: “The essence of Japanese miracle is in amazing mutual trust between supreme power and big business ... In Japan, the state together with big business managed to develop an economic strategy ... It was necessary to break the stereotype of 1960s, which stated that Japanese goods were cheap, but substandard. At the price of huge efforts, on their transistors, TV sets, and cars, they convinced the world that the Japanese product is qualitative” (Ovchinnikov & Zhigarkova, 2004).

According to N.I. Poletayeva, V.I. Golubovich and L.F. Pashkevich (1997), Japanese economic science in its development has experienced the so-called “Keynesian period” in the 50-60s, as well as a certain “conservative shift” in the 70-80s, nevertheless in the evolution of Japanese economy there were always specific ethnic features, in particular protectionism.

J.W. Dower (1988) points out that, “The Japanese of the postwar era, like their predecessors of the Meiji Era, has attempted to reinvent themselves. At the same time, they had to do this with materials at hands” (Dower, 1988).

In this view, two pillars that made it possible to reconstruct Japan were undoubtedly a strong sense of national unity and a sense of a single goal, i.e. economic development of the country.

The interest of the world's historical and economic science in the phenomenon of Japanese economic miracle is enormous still, since Japanese experience can serve as an example for other countries.

As it turned out, it was the three sacred treasures presented by electric appliances that were destined to become symbols of “new life in Japan. Thus, the concept “Sanshu no Jingi” has been transformed at its semantic level. This substitution can be reflected in the form of “Frege triangle” mentioned above (see figure 4).

Bibliographic references

- ARUTYUNOV, S.A. – ZHUKOVSKAYA, N.L. 1987. Svyatie relikvii: Mif i Deistvitelnost. Moskva: Politizdat. ISBN 5832
- CHAMBERLAIN, B.H. 2005. Kojiki. Records of Ancient Matters. Vermont: Tuttle Publishing. ISBN 978-0804836753
- DOWER, J.W. 1988. Empire and Aftermath: Yoshida Shigeru and the Japanese Experience, 1878-1954. Cambridge: Council on East Asian Studies, Harvard University. ISBN 978-0674251267
- DYAKONOVA, E.M. 2002. Imperatorskie regalii - zerkalo, yashma, mech. Available online: www.east-west.ruh.ru/binary/67096_69.1236344538.08077.doc
- FELDMAN, N. – PINUS, E. – MIKHAILOVA, U. – MAZURIK, V. 2002. Synto. Put yaponskih Bogov. Sankt-Peterburg: Giperion. ISBN 5-89332-058-1
- FREGE, G. 1892. Über Sinn und Bedeutung. In: Zeitschrift für Philosophie und philosophische Kritik, n. 100, pp. 25-50.
- INOSE, N. 1991. Mikado no kuni no kigouron. Shogakkan: Shohan.
- KIMITOSHI, H. 2015. Mitsu sourou to goriyaku ga aru? Available online: <http://bizacademy.nikkei.co.jp>.
- KUZNETSOVA, E.A. 1997. The appearance and distribution of bronze circles in the territory of Japanese islands. Novosibirsk: Publishing house of the Institute of Archeology and Ethnography of the SO RAN. ISBN 5-4361-0172-7
- LOTMAN, Y. 1992. Simvol v sisteme kulturi. Tallin: Aleksandra. ISBN 5-7331-0184-9
- MCVEIGH, B.J. 2004. Nationalisms of Japan: Managing and Mystifying Identity. Lanham: Rowman & Littlefield. ISBN: 978-0742524552
- MESHCHERYAKOV, A.N. – Grachev, M.V. 2010. Istoriya drevney Yaponii. Moskva: Natalis. ISBN 978-5-8062-0327-5
- MILLER, D.L. 2004. D-Days in the Pacific. New-York: Simon and Schuster. ISBN 978-0743269292
- OVCHINNIKOV, V. – ZHIGARKOVA, O. 2004. Slagayemie uspeha Vostochno-Aziatskogo chuda. In: Psihologicheskaya gazeta “My i Mir”, vol. 8, n. 96, pp. 8
- POLETAYEVA, N.I. – GOLUBOVICH, V.I. – PASHKEVICH, L.F. 1997. Economicheskaya istoriya zarubezhnih. Minsk: Ekoperspektiva. ISBN 985-6102-09-X
- PYLE, K.B. 2008. Japan Rising: The Resurgence of Japanese Power and Purpose. New York: Public Affairs. ISBN 978-1586485672
- SAITO, T. 1971. Nihon Kokogaku Senshu. Tokyo: Tsukiji shokan.
- PLOKHOTNYUK, V.S. 2011. Semiotika kultury: antropologicheski povorot. Saint-Petersburg: Eidos. ISBN 9785904745127
- United States Strategic Bombing Survey. 1947. Morale Division: The Effects of Strategic Bombing on Japanese Morale. Washington: United States Government Printing Office.
- VARLEY, P.H. 1980. A Chronicle of Gods and Sovereigns. New York: Columbia University Press. ISBN 978-0231049405
- YERMAKOVA, L.M. 1997. Nihon shoki. Saint-Petersburg: Giperion. ISBN 5-89332-002-6
- YOSHIDA, A. 1977. Japanese mythology and the Indo-European trifunctional system. In: Diogenes, vol. 25, n. 98, pp.93-116. ISSN 14677695.

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