
The Impact of Chinese Seals on the Structure, Design, and Usage of the Īl-Khānids Seals and Coins

Mahnaz Shayestehfar¹, Erfan Khazaie

¹Associate. Professor, Department of Islamic art, Faculty of art, Tarbiyat Modares University, Tehran, Iran; E-mail: shayesteh@modares.ac.ir

²MA in Industrial Design, Department of Industrial Design, University of Tehran, Tehran, Iran; E-mail: khazaei.erfan@gmail.com

Abstract:

Īl-Khanid seals and coins are a type of seal featuring figurative patterns typically characterized by the Rectangular style of Kufic script, the absence of figures, extensive use of calligraphy, geometric, and abstract patterns. Although it is based on the Persian seal-carving tradition, the Īl-Khānids seals and coins exhibit various elements from the Chinese seals (印章), and also similar in their style to the Mongolian writing systems. While the Silk Road, the central path for trade and economic purposes, brought together China and Persia, the two nations had strong influences regarding culture, tradition, and religion, and Persian art has applied many Chinese artistic elements, particularly in the art of seal making. Indeed, the historical evidence suggests that the Mongolian Empire employed the Chinese seals (印章) throughout their territory, stretching from China to Persia.

The intercultural influences through the Silk Road seem to be well-rooted in Central Asia, and for the first time, Chinese culture is seen abundantly in the Īl-Khānids seal history, as well as the Rectangular style of Kufic script on the seals and coins, influenced by the Uighur script. This paper uses an interdisciplinary approach to analyse the Chinese and the Īl-Khānids seals and coins to survey transmission of the Chinese tradition through Silk Road cultural exchanges. The results show that there exists a strong possibility that the manner in which the writing of Arabic characters in the Rectangular Kufic writing system was inserted at the top to the bottom unexpectedly followed the style of Mongolian words.

Keywords: The Mongol Empire, The Īl-Khānids, The Silk Road, Inter-cultural influences, The Rectangular Kufic calligraphy art, Uighur script.

I. INTRODUCTION

In general, a seal, in an East and Southeast Asian context, is a general name for printing

stamps and impressions thereof which are used in lieu of signatures in personal documents, office paperwork, contracts, art, or any item requiring acknowledgement or authorship. The process started in China and soon spread across East Asia. As an established category of Chinese art, seals are considered among the most significant representatives of Chinese aesthetics. Their form and function evolved from a history of over 3000 years, and the consistency, compared to seals from other cultures, for example the cylinder seals of Mesopotamia, is worth noting (Chen, 2018).

Hence, it can be said that the art of seal engraving is a cornerstone of Chinese fine arts. The seal was originally used as a signature or sign of authority, but it came to be used by all social classes and in much of Asia. In China such seals were utilized even before the invasion of the Mongols. Also, from ancient times, seals have endured an inimitable place within the culture of Persia. One of the fundamental issues regarding the history of seals is understanding the evolution of various types of calligraphy applied on the seals.

In the thirteenth and fourteenth centuries, Chinggis Khan and his heirs established and ruled the largest contiguous empire in world history, an empire that, at its height, extended from Korea to Hungary, and from Iraq, Tibet, and Burma to Siberia. Ruling over roughly two-thirds of the Old World and profoundly impacting also regions beyond its reach, the Mongol Empire created remarkable mobility across Eurasia, with people, ideas, and artifacts traversing vast geographical distances and cultural boundaries (Biran et al, 2020). The vast Mongol empire Chinggis Khan created stretched from China to Europe, across which the Silk Routes functioned as efficient lines of communication as well as trade (Strathern, 1994). The formation of the Mongol empire marked a break in the history of Eurasia, as countries with a long sedentary tradition, such as China and Iran, were made subject to a single people of the steppes for over a century (Aigle, 2008).

The Mongols' defeat of the Song dynasty (960-1279) in the 1270s enabled them to extend Yuan rule (1260-1368) into South China, and opened a gateway to the "maritime Silk Roads," a series of trade routes and commercial networks that had developed long before the Mongol era. They connected China with major commercial and political centers along the shores of Southeast Asia and the Indian Ocean, leading up to the Persian Gulf, the Red Sea, and the shores of Africa. Access to these routes was crucial for the Yuan: it enabled them to tap into the lucrative and rich trade (Biran, 2020).

Establishing rule over most of West Asia, including Iraq, Iran, Khurasan, the Caucasus, and parts of Asia Minor, Hülegü (r. 1256–65) assumed the title of "Il-Khan," meaning lesser Khan, subordinate to the Great Khan ruling in China. This branch of the Mongol dynasty, which became known as the Īl-Khānids (1256–1353 AD), centered its power in northwest Iran. Although Mongol conquests initially brought devastation and affected the balance of artistic production, in a short period of time, the control of most of Asia by the Mongols created an environment of tremendous cultural exchange (Yalman, 2000).

In this period, the official documents of the Mongol regime in Eurasia shared certain common aspects, despite the influence of traditional documents in cultural regions like China and Iran (Yokkaichi, 2010). The official documents of the Īl-Khānids dynasty in Iran, also exhibited style similar to that of the Mongol regime. While Mongolian language was used at the upper level of

the command structure of the Īl-Khānids administration, in which the Mongol royal families were at the central, both Mongolian and Turkic were used at the level of Amirs or Noyans. On the other hand, Vazirs and government officials from the local societies in Iran and Central Asia acquired traditional writing skills in Arabic and Persian, with some of them even mastering Mongolian and Turkic (Paul, 1995). Some Īl-Khānids official documents have the Chinese Tamyas (seals). Such seals are called al Tanya (red seals) or Altan Tanya (golden seals) (Mostaert, 1962).

In the Īl-Khānids era, coins widely had geometric designs, especially during Abū Saīd¹ period which architectural elements and architectural scripts were largely used. The coins of the later Īl-Khānids are unique documents for the history of the period, particularly in view of their broad geographic range, high quality, and most of all, their profusion. On the other hand, they are contemporary sources useful in elucidating the economic system (Blair, 1982).

Among the remaining seals and coins are works of art created by the Īl-Khānids artists who applied angular lines known as Rectangular Kufic in which angular calligraphy is fixed within a limited space usually in a geometric design. Square or geometric Kufic is a very simplified rectangular style of Kufic widely used for tiling. Also, the Kufic script was used in the reproductions of the Holy Quran. Thus, today it is accepted that the Islamic calligraphy art starts with the Kufic script (Tan, 1999). Today, seals that bear the Rectangular Kufic style are still popular.

So, this research focuses on the appearance and script style of the Īl-Khānids seals and coins, and we analyze the impact of the Chinese seals (印章) on the structure, design, and usage of the Īl-Khānids seals and coins. The purpose of this paper is to describe similarities and demonstrate the importance of the Silk Road as a cultural bridge between ancient China and Persia by examining similarities between the Chinese seals (印章) and the Īl-Khānids seals. The key question that this article attempts to answer is the following: To what extent did the Īl-Khānids seals and coins affected by the Chinese seals (印章)?

The hypothesis here emphasizes on the fact that according to the many similarities between Rectangular Kufic calligraphy and Uighur script², which are mostly due to cultural ties that bind in the relations of two nations though the commercial trade of the Silk Road, many scholars consider that Rectangular Kufic style is devised and influenced by the Chinese seals (印章); however, the accuracy of such a theory is not established; nonetheless, research in this field is believed to be necessary. These similarities revolve on the following two axes:

- The political and financial management of Mongolia and the eastern part of Central Asia was controlled directly by Yuan China and the Yuan dynasty promoted the management of maritime trade and strengthened connections with merchants in the Islamic and Turkic world. (Yokkaichi, 2008). So, the cultural ties that bind in the relations of Iran and China, led to the further promotion of close relationships in the Īl-Khānids period.

- During the Īl-Khānids period, there was great prosperity or rapid economic growth in the context of the expansion of intercultural exchange following the Mongol conquests during the mid-thirteenth century. In other words, booming jobs and increased orders for newly minted coins

produced.

Overall, the presentation of similarity information achieves more balanced scientific communication and can help address this research. So, this study reflects on the similarities of this historical art in accordance with composition and calligraphy display that may shed light to a relatively unknown era in history and therefore is of interest to scholars around the world. Moreover, for a researcher facing a historical seal and coins designs, it is the taste of a treasure hunt to discover repeating words and phrases in complex Rectangular Kufic patterns and Chinese calligraphy. Furthermore, there are a very large number of different words hidden making it difficult to track even for an expert. So, this study synthesizes historical information from Chinese, Arabic, Persian, and Latin sources that are otherwise inaccessible to English-speaking audiences.

This study offers the perfect starting point for any discussion of the Mongol Empire's impact on Iran, the expansion of trade in Central Asia, the Persian and Arabic calligraphy evolution of seals and coins and illustrate the scale, diversity, and creativity of cross-cultural exchange along the continental and maritime Silk Roads.

II. Inter-Cultural Influences Through the Silk Road

Historical and archeological evidence can reveal how societies have responded to changes in the past. These show that societal responses could not have been predicted in advance and that successful adaptations to new political and economic conditions depended on the good or bad choices that people made. One of the consequences of these changes is the intercultural communication that is created as a result of the interaction between cultures.

An intercultural communication is the communication between people whose cultural perceptions and symbol systems are distinct enough to alter the communication event (Samovar & Porter, Stefani, 2000). Different ethnic groups interacted and integrated during the development process of the Chinese nation. The Silk Road dates back to the 2nd century B.C. when ancient Chinese people communicated with people from Central Asia, west Asia, Africa and Europe. The introduction of Indian Buddhism, the eminent monk Jianzhen's (Chien-chen 鑑真; 688–763) visit to Japan, and Zheng He's (鄭和; 1371–1433) Voyages to the Western Oceans, all these activities included complex processes of intercultural communication (Hu & Fan 2011). The inter-cultural communications among different nations, ethnicities and regions along the Silk Road became increasingly intense with the expansion of nomadic people who served as the catalysts and agents for that communication (Chen, 2018).

The Silk Road trade played a significant role in the development of the civilizations of China, Iran opening long-distance political and economic relations between the civilizations (Bentley, 1993). The Silk Road itself began when traders and explorers found their passage from China to Europe and the Middle East in the second century BCE, mostly as a trade based on silk and silk products but also including precious stones and jewelry (Peters, 2020).

The Silk Road did not only promote commodity exchange but also culture. Along with spreading goods, cultural samples in the applied art, seals exchanged. Old traditions between China and Iran exchanged by the Silk Road are all preserved and represented in the usual cultures of that time. In the meantime, calligraphy was one of the elements that has intercultural influences. “Calligraphy is one of the most significant art practices in Chinese culture and in Islamic worlds. This may result from the specific status accorded to canonical and foundational texts, namely the Quran and the Confucian canon, during the classical periods of their respective art histories” (Tillinghast, 2007). In the flourishing of Islamic artistic expression that followed the consolidation of Mongol control over China, Persia and Central Asia in the late 13th century, the Kufic script became the standard script used for the invocations inscribed in the inner walls of mosques and for verse headings of the Quran.

This geographic distribution corresponds to the region under the direct control of the Ming dynasty (1368-1644). Trade and travel restrictions during the Ming period broke the intimate links that had existed under Mongol rule between the Muslim communities of China and those of Central Asia and Persia. It is from around the Ming period that distinct Chinese Islamic traditions of writing began to develop, including the practice of writing Chinese using the Arabic script (xiaojing) and distinctly Chinese forms of decorative calligraphy (Tillinghast, 2007).

The Mongol invasions of the Islamic East which culminated in destruction of Baghdad in 1258 had serious disruptive effects on the religious and cultural lives of Muslim people of the conquered areas. However, the early Mongols became essentially Persianized³ and transferred the Persian literary and high culture to South Asia, thus forming the base for the Indo-Persian culture and the spread of Islam in South Asia (Canfield, 2010). Finally, the eventual triumph of Islam over the Mongol and the conversion of them to the Islamic faith lead to relatively settled times in which the calligraphic achievements of former generations continued to prosper. There was under the enlightened the Īl-Khānids rulers, the direct descendants of the early Mongols, great support and patronage for the art of calligraphy and illumination (Jazayeri, 2017).

So, the study of Chinese and the Īl-Khānids Seals and Coins as a major cultural heritage can certainly help us to better understand the Impact of the Chinese seals script (篆書) on the Structure, Design, and Usage of the Īl-Khānids Seals and Coins in question under the influence of commercial trade on the Silk Road.

III. The background of Chinese seals

Chinese chops, or seals, are used to inscribe a person’s name or family name onto items such as government documents, art, and literary works. People have long used seals for various purposes, such as commercial purposes. Another use of seals is authentication, and a large number of studies has been focused on this area. In ancient China, seals revealed one's identity and were commonly used by various classes of people. Traditional Chinese seals (印章) can also be considered as a form of art, for people to appreciate and to learn about the culture at different dynasties (Leung, 2004).

Seal engraving or Zhuanke (篆刻) is a common name for this fine art; it is named Zhuanke since the calligraphy of the seals is mostly the Zhuanke script. The basic element of this art is a special set of knives each with an accurate precision able to create cuts with various magnitudes and proportions. The seal inscriptions are initially written on the face of a seal and then carved out by the proficient hands of the artist. Overall, the main features of seal engraving are calligraphy, layout arrangement and blade usage (Wang Zhuan, 2019).

Chinese seals contain one of the five Chinese scripts that include: 1. Lee Shoo (李寿) (official script) 2. Kei shoo (祺商店) (script with theorem) 3. Sin Shoo (罪恶店) (round script) 4. Kao Shoo (花王) (scribal script) 5. Zhuan Shoo (转徐) (published script- seal). A novel intelligent system uses a constraint-based analogous-reasoning process to automatically generate original Chinese calligraphy that meets visually aesthetic requirements (Xu et al, 2005).

Chinese seals are typically made of stone, sometimes of metals, wood, bamboo, plastic, or ivory, and are typically used with red ink or cinnabar paste (朱砂). The word yìn (印) specifically refers to the imprint created by the seal, as well as appearing in combination with other ideographs in words related to any printing, as in the word "印刷", "printing", pronounced "yìnshuā" in Mandarin, "insatsu" in Japanese. The colloquial name chop, when referring to these kinds of seals, was adapted from the Hindi word "Chapa" and from the Malay word "cap" (Yule and Coke, 1903), meaning stamp or rubber stamps.

Chinese seal carving (篆刻), a hybrid art integrating calligraphy and carving techniques is cogitated as a delicate art articulating the aesthetical features of painting. Seal engraving a genuine characteristic of Chinese culture can be categorized as a minor group of graphic design since in both fields various methods are used to create and combine words, symbols, and images to create a visual representation of ideas and messages. The culture, implications, and interests implied on the designs of the Chinese seals (印章) are fully apparent when imprinted on paper and convey a specific message (or messages) to a targeted audience⁴.

The use of seals and the practice of seal carving in China have a history of over 3.000 years. The earliest Chinese seals (印章) were in the form of engraved pictographic characters and simple decorative patterns. From archaeological finds, bronze seals engraved with pictographic characters are known to have existed in the Shang (商) Dynasty⁵ (c.1600-1300 B.C) (Sun, 2004). These bronze seals, simple in shape, were rather crudely made and were utilitarian in nature; additionally, they were not an indicative of a high art form. The pictures and characters engraved on the seals were quite similar to the illustrations and patterns found on the bronze ware of the Shang (商). Such seals are the earliest known of their type to have appeared in China 3700 years ago in the Qin (秦) dynasty⁶, where seal engraving reached its uppermost definitive and individuals engraved their names on utensils and documents (of bamboo and wood) to demonstrate possession. Out of this grew the cutting of personal names on small blocks of horn, jade or wood, namely the seals as we know them today (Chio, 2017).

Ancient seals, like those found in later dynasties, could be classified into different categories.

The first category was in terms of function-official or private. The second was the presentation of their script positive or negative, that is, carved in relief or as an engraving, the third was the techniques used in making- casting or carving, in terms of artistic styles, these included formal, natural, exquisite, or romantic. These styles, of course, were closely related to the techniques of carving, script composition, and overall functionality. In general, ancient seal art was a direct reflection of calligraphic scripts, casting or carving techniques, and the social and cultural milieu of the time (Sun, 2004).

“It was thought that the seal originated from jade tablets used by the Emperor and members of his Court in religious rituals. Later seals were used to seal articles in the same way as we use sealing – wax nowadays” (Li T., 1962).

Many such impressions of clay seal have survived from imperial times, some from the pre-Qin (秦) and a few seals, perhaps, even from the Shang (商朝). Seals reflect the development of written Chinese. The earliest ones, especially the red-ink seals appear from the Qin (秦) and Han⁷ (汉朝) bear the Zhuanke (篆刻) or curly script, which explains why the art of seal engraving is still called Zhuanke (篆刻) and also why the Zhuanke (篆刻) scripts styles appeared one after another on the Chinese seals (印章), which may now be cut in any style except the cursive at the option of the artist. Characters on seals may be cut in relief or in intaglio. The materials for seals vary according to position and public. Average individuals normally have wood, stone or horn seals, whereas noted public figures would probably prefer seals made of red stained Changhua (彰化) stone, jade, agate, crystal, ivory and other more valuable materials. In preceding stages, monarchs used gold or precious stones to make their imperial or royal seals. Today Chinese government offices at lower levels use wooden seals (Zhou, 2003).

Seals were cut either in relief; yang (杨) in order to produce a positive imprint⁸ of the characters, or incised in intaglio; yin (阴) to create a negative imprint. In both cases they were cut in a mirror, as were the molds used in casting characters in bronze, and as much later were the wood blocks for printing. The Qin (秦) Dynasty (221-206 B.C) was a turning point in the history of the development of the Chinese seals (印章). Under the Qin (秦) Dynasty, China became a unified empire, and a centralized feudal administration system was established. Roads, money, and weights and measurements were standardized (Sun, 2004).

The Han (汉朝) dynasty was the golden age of seal making. During the Han (汉朝) Dynasty, a form of calligraphy was specially proclaimed for seal making. It is regular, simple and upright, most suitable for seal making (Li, 1962). After the Han (汉朝) Dynasty, the art of seal making suffered a great setback during the Sui (隋朝) (600 A.D), Tang (唐朝) (618-907 A.D), Sung (宋朝) (907-1280 A.D) and Yuan (元朝) (1280-1368 A.D) periods.

III. The History and Origin of the Kufic Script

Kufa in southern Iraq that was the Islamic capital in the caliphate of Ali, was the first of

the styles to develop. The straight lines and sharp angles of Kufic are especially suited to working with hard materials, such as the hide on which early Quran manuscripts were written and the carved stone of early mosque decoration (Tillinghast, 2007). Square Kufic (kufi mrabba'), sometimes known as bannâ'i ("masonry script") is a particular style of Kufic that is going to allow us to create composition using the basic structural forms of the letters. Indeed, Square Kufic (abbreviated SK) is the barest of all Arabic writing styles, and an interesting precursor to calligraphy art.

“Rectangular Kufic is the most important of several variants of Arabic scripts. Kufic takes its name from the city of Kūfah. Before the emergence of Islam, this city was known as “Heyre”. Heyre was a city of commerce where Arabs travelled for trade and merchandise” (Rahjiri, 1970).

In the second decade of 1st Hejira and 7th AD, the city of Kūfah underwent fundamental changes and initial alterations. Therefore, a new script, Kufic Script, began to emerge with a definite structure and composition. It shows quadrangle and square words that are continued with short vertical strokes and horizontal lines, which are well-known as Khate- Kufi. This type of script not only replaced the later styles of writing and scripts, but also had a fundamental effect on Islamic calligraphy in all aspects (Safadi Yassin, 2002).

The Quran was written in Kufic for more than 300 years. Later, it is applied to inscriptions. Over time, the Kufic script was mainly used as an element of ornamentation rather than merely a script. The early Kufic writings mostly reflected the harsh social and cultural environment of its birthplace. From the initial years of the second 8th AD, the ornamented Kufic script became a paramount feature in Islamic art (Li, 1962).

Many consider this Rectangular Kufic to be influenced by the Uighur script⁹ (Jeddi, 2007). The most salient feature of the Uighur script is its vertical direction. This is because the Uyghurs rotated their script 90 degrees anticlockwise to emulate the Chinese writing system (Janhunnen, 2006).

In the Islamic ages, Muslims and the Chinese enjoyed many cultural and artistic coalitions; to the extent that Islamic and Persian art influenced Chinese art and vice versa. Also, scripts underwent changes.

The emergence of the seal script goes back to 1200 AD. Seals can be the key source for the development of publishing. Today, Chinese people use the word “seal” for the act of publishing and therefore this script is also known as the published script. The published script on the Īl-Khānids seals and coins has the most similarity with the Rectangular Kufic script, since seals are situated within a square or other geometrical patterns. “Quadrangle shapes have always been a source of interest and were written according to specific calligraphy rules. Each word or letter is situated within the quadrangle and all shapes are equivalent. According to Mongolian art, quadrangle shapes and Mongolian scripts were intertwined with Rectangular Kufic with the same appearance only with Islamic meanings. Therefore, one of the elements of impact is the

compilation of Chinese calligraphy and Mongolian Tamaki with the Kufic script which was the base for the emergence of Rectangular Kufic especially its Moaleghi kind. Later on the Īl-Khānids era¹⁰, this script was applied on seals, coins, and tile work. It appears that Rectangular Kufic was mostly influenced by Mongolian Tamaki, and probably it is best to regard it as Tamaki Kufic or the Tamaki script (Jeddi, 2007). The Rectangular Kufic script remained the predominant style until the seventh/ twelfth century on coinages in the Islamic world. In 1258, with the Mongol conquest of Baghdad and the final downfall of the Islamic Empire, the canon of standard inscription for coinage changed in Mongol Iran and Central Asia. Political authority was now derived from the family of Genghis Khan which governed an empire from the borders of Silesia to Korea. New scripts and languages, such as Uighur, Phagspa, and Chinese entered Islamic coin design to address the new authorities (Heidemann, 2010).

III. Similar Features in Chinese Seals and the Rectangular Kufic Script

Engraving on seals is an ancient art that is blended with calligraphy and expresses a practical need for signing documents and other official papers. According to the historical documents, Persia and China enjoyed close relations in the Īl-Khānids era (Aigle, 2008). Calligraphy on monumental architecture also influenced coin design. In eastern Iran beginning with the seventh/thirteenth century we find an odd rectangular Kufic on broad thin, debased fiduciary dirhams in Central Asia (Heidemann, 2010). There is extensive use of had geometric designs in the coins of the Īl-Khānids era. Most of the coins are circles, although there are also some with four, five, or eight sides. The use of geometrical designing with circles or concentric circles in early Islamic coins, and just in some limited cases, some geometrical layouts on coins were applied. Some designs were taken from architectural elements, such as the Rectangular Kufic script and the use of geometrical patterns developed gradually over time.

It seems that the Persian artists inspired by Chinese art created a new method of a script, known as Rectangular Kufic. But, some researchers believe that the Square Kufic style was under the influence of religious monuments of the period of the Abu Sa'id Bahadur Khan (Salehi et al., 2015). Nevertheless, it must be admitted that the new script has many similarities with the Chinese seals (印章) by using vertical and horizontal lines in a confined geometric shape, where the Arabic words such as Allah (الله) and Ali (علي) are written in a similar way to Chinese seals (印章); in other words, the Arabic holy words are inspired by the Chinese seals (印章).

According to this thinking it should be possible to relate this similarity to the holly concepts within Chinese calligraphy and the connection between the Daoist philosophy of Yin and Yang (陰陽), and Islamic concepts. So this issue is not still looked at very much from a new perspective. According some specialists (Jin and Wang, 2000) the Daoist philosophy of Yin and Yang (陰陽), and the dialectic of diversity within unity have nurtured and fundamentally

determined the character of the art of calligraphy.

For example, list of twenty pairs of opposing concepts to illustrate the aesthetic dimensions of Chinese calligraphic art, including square (方 fāng) versus round (圓 yuán), curved (曲 qū) versus straight (直 zhí), skilful (巧 qiǎo) versus awkward (拙 zhuó), elegant (雅 yǎ) versus unrefined (俗 sù), large (大 dà) versus small (小 xiǎo), guest (賓 bīn) versus host (主 zhǔ), and so forth (Jeddi, 2007). In writing practice, the artist manipulates and elaborates on the balance between opposites, emphasizing diversity within parts, and the harmony or unity of the whole. The study of Chinese calligraphy is not only a study of Chinese writing. In many ways, it is also a study of Chinese philosophy and the Chinese worldview. Aesthetic principles and standards are rooted in cultural and philosophical tenets, and Confucianism and Daoism form the basis of Chinese culture. Of the two Daoism has the stronger influence on art. It is no exaggeration to say that Daoism, from its place at the core of Chinese culture, is the spirit of Chinese art. Many characteristics of Chinese calligraphy reflect Daoist principles (Li, 2010). As mentioned, this method is also applicable to components of Arabic script. In the early examples of the Rectangular Kufic style, go back in the Īl-Khānids era can be found, for example, in the David collection. The following selection of examples gives an idea of the possibilities of the impact of Shinese Seals offered by this style. In this way, this similarity may be due to the fact that the Rectangular Kufic style tries to convey the holy aspects of the Arabic Script, as shown in Figure 1 and 2. The two words of ‘La’ (لا) and “Allah” (الله) are depicted on the coins of Abu Sa‘id Bahadur Khan¹¹.



Fig 1: The Gold double dinar coin of Abu Sa‘id Bahadur Khan ibn Uljaytu, (716-736 H/1316-1335 CE), The Īl-Khānids of Persia, Iraq and Anatolia, (654-757 H/1256-1356 CE), (The Astan Quds Razavi Museum, 2020).

The design on the obverse of this coin shows central square. The inner square of the coin depicts the following carved words are “la ilah illah allah / muhammad / rasul allah / arsalahu bi’l-huda / wa din al-haqq”, translated to “no god but God (لا اله الا الله), Muhammad is the

messenger of God (محمد رسول الله), who sent him with guidance and the religion of truth (أرسله (بالهدى ودين الحق). In margins, at 12:00‘; tabarak allah (تبارك الله), at 9:00‘; bi-yadihi al-mulk, at 6:00‘; wa huwwa ’ala, at 3:00‘; kull shay qadir “blessed be He in whose hands is dominion; and He over all things hath power (ولديه سلطة على كل شيء)” Sura 67 (al-Mulk). The verse of the Qur'an composed in the shape of the square, itself in Square Kufic.

The design on the reverse of this coin featured inscription that reads: fi dawlat al-mawla al-sultan (في دولته مولي السلطان) / al-a‘zam malik riqab (الاعظم ملك رقيب) / al-umam ilkhan al-‘alim (الامام ايلخان العليم) / abu sa‘id khallada allah (ابو السعيد خالد الله) / mulkahu (ملكه). It translated to “struck in the prosperity of our Lord the Supreme Sultan, King of the Necks of the Peoples, the enlightened Īl-Khān Abu Sa‘id May God perpetuate his sovereignty”. There is no proportion between the words inscribed on the reverse of this coin. So, the design on the obverse of this coin shows Arabic words inscribed within a rectangular frame on the basic lines.



Fig 2: The Gold double dinar coin of Abu Sa‘id Bahadur Khan ibn Uljaytu, (716-736 H/1316-1335 CE), The Īl-Khānids of Persia, Iraq and Anatolia, (654-757 H/1256-1356 CE), (The Astan Quds Razavi Museum, 2020).

It is in square Kufic script “la ilah illa allah, muhammad rasul allah, salla allah ‘alayhi”, translated to “no god but God (لا اله الا الله)”, “Muhammad is the messenger of God (محمد رسول الله)”, “God’s blessing be upon him (صلي الله و عليه و آله)”. Around of in Naskh script, in the four corners of the square with the use of movement and connected lines, there are the words the names of the four “Rightly Guided” Caliphs

at 12:00‘; Abu-Bakr (ابوبكر), at 3:00‘; Omar (عمر), at 6:00‘ Othman (عثمان), at 9:00 ‘; Ali (علي).

This coin has a circular shape and an incomplete peripheral; the main section of the coin is connected to the edges. The use of curved lines in contrast with angular lines is another feature of this coin. Also, the main part beholding the script is ornamented with elegant

decorations. The word Mohammad is created by short and angular lines and is situated on the right side of the coin. in Figure 2, Using short, angled lines, the artist has created a similar combination of the word Muhammad. Also, the letter; s (س) in the word Rasool; one of the names of the Prophet is seen on the second half of the seal.

The design on the reverse of this coin featured inscription that reads: in Arabic: al-sultan al-a'zam al-'adil / darb / in Uyghur: busaida / in Arabic: sabzawar (سبزوار) / bahadur khan khallada mulkahu (بہادرخان خالد ملکہ). “the Enlightened and Just Sultan, struck, Abu Said, Sabzawar, Bahadur Khan, may his (God) perpetuate his sovereignty”. Around the coin, at 12:00 duriba, at 9:00) sana thalath_, at 6:00 (_wa thalathin), at 3:00 al-khaniya, “struck the year three (and thirty) khani”. There is no proportion between the words inscribed on the reverse of this coin, But, we can see Arabic words on the obverse of this coin inscribed within a rectangular frame on the basic lines. In general, the basic lines and lack of decorative motifs in writing flourished in the Islamic period. With the exact analysis of the Arabic words, you can see the basic lines (Fig. 3).

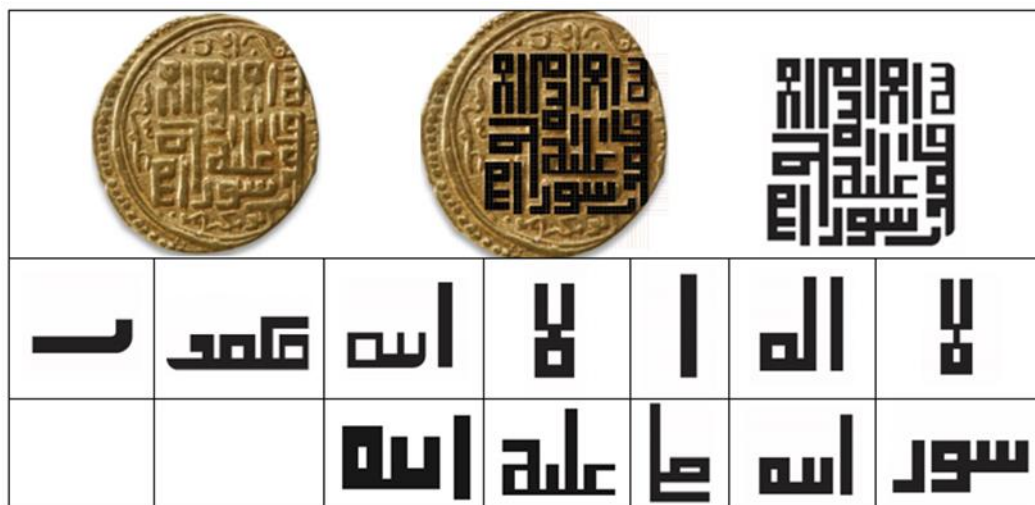


Fig 3: The exact analysis of the words and letters on the Gold double dinar coin of Abu Sa'id Bahadur Khan ibn Uljaytu.

The design of this coin is two intertwined circles, distinguished from each other in equal distances by dark lines with harmonious thicknesses. The artist has positioned the main script in a geometric square shape by using horizontal and vertical angle lines and has therefore engendered a pure geometric arrangement that is more creative than similar designs.

This harmonious combination of words is similar to the composition of lines engraved on the Chinese seals (印章). The lines create an abstract border or path within the square. The relatively long continuation in the word of “La” (لا) can be seen in similar cases in the structure

of the Chinese seals (印章) in Figure 4. If the seal is split into three sections so that a combination of the shapes is located within the two horizontal lines, the created lines have a sharp contrast with other patterns of the seal that are connected to the three lines from above. But somehow, this combination of basic lines resembles the words “La” (لا) and “Allah” (الله) in figure 3, which were first introduced in the Rectangular Kufic. The similarity in these seals can be seen as the outcome of the impact of cultural relations between China and Persia in the Īl-Khānids era. The seal of Mahmud Ghazan, showing the grid underlying the design and combination of calligraphy and geometry.



Fig 4: A seal of Mahmud Ghazan, over the last two lines of his 1302 letter to Pope Boniface VIII. The seal was given to Ghazan by the sixth Great Khan (Emperor ChengZong of Yuan). It is in Chinese script: "王府定國理民之寶", which means "Seal certifying the authority of his Royal Highness to establish a country and govern its people". Overwritten on it vertically, are two lines in Mongolian using the old, Aramaic-based, Uyghur script.

Vatican Archives.

To the Chinese, the world consists of and operates on two great powers that are opposing in nature: yin, similar to a negative force in Western terms; and yang, analogous to a positive one. These two concepts are represented in the Daoist symbol known as the Great Ultimate, shown in Figure 5. In this figure, the black part is yin and the white part is yang (Jin and Wang, 2000).

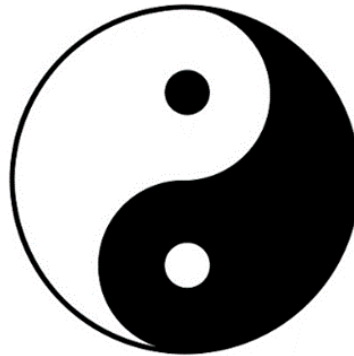


Fig 5: The Daoist symbol of the Great Ultimate.

The Daoist philosophy of yin and yang expresses the early formation and development of the ideal of harmony in ancient Chinese philosophy and ancient Greek philosophy. Unlike the Pythagorean notion of harmony, which is primarily based on a linear progressive model with a pre-set order, the ancient Chinese concept of harmony is best understood as a comprehensive process of harmonization. It encompasses spatial as well as temporal dimensions, metaphysical as well as moral and aesthetic dimensions. It is a fundamentally open notion in the sense that it does not aim to conform to any pre-set order. This broader, richer, and more liberal understanding of harmony has had a profound influence on Chinese culture as a whole in its long history (Li, 2008). The Daoist philosophy of yin and yang and the dialectic of diversity within unity have nurtured and fundamentally determined the character of the art of calligraphy (Lai, 2014).

In figure 6, four kinds of seals are stamped. They consist of two vermilion seals and two black seals. Among them, one is a square-shaped vermilion seal in Arabic script. Another is a square-shaped vermilion seal in 'Phags-pa and Arabic scripts; the two main seals are two red intertwined squares that are positioned in a stepwise fashion. The artist is inspired by the red Chinese seals (*āl-tamgā*)¹² and has created seals similar but with a new outlook with the use of positive and negative spaces. The first red seal was the figure of two squares which the main space, the bigger square, is dedicated to the Uyghur (维吾尔语) script. According to the *Īl-Khānids* sphragistic practice, an *āl-tamgā* seal should be stamped on the joint line of two sheets of paper and the bottom part of the document (Yokkaichi 2010).



Fig 6: Four Imprints on Amīr Čoban’s Decree of 726/1326 (SAMI, s.250, recto), the Īl-Khānids era, Reproduced by courtesy of the National Library and Archives of the Islamic Republic of Iran, (Yokkaichi 2010).

Seals are often used on Chinese calligraphy works and Chinese paintings. A red seal applied to a painting or calligraphic work enhanced its artistic effectiveness (Sullivan, 2008). In the red seal, the artist has managed to produce a geometrical pattern by using a contrasting composition. so that the Uyghur script is located in the peripheral. Figure 7 shows an example of the red Chinese seal with the same specifications.



Fig 7: Chinese Seal- Taken from the Qian Xuan (錢選) Painting, Pear Blossoms (633-701/1235-1301) Yuan dynasty: New York.

Figure 8 shows a seal related to the Īl-Khānids era. In general, this seal is a set of 2 nesting squares. However, it should be noted that the artist has achieved to create this geometric pattern by applying Rectangular Kufic without using decorative lines. In the central square, the name of Sheikh Abushaq, one of the rulers of the Īl-Khānids era, is written in Rectangular Kufic script. Lines moving in such a way so that it fills the whole geometric surface to create a

combination of horizontal and vertical lines in a come and go with a uniform thickness. It should be noted here that Square Kufic generally has only one strict rule: absolute evenness of full and empty spaces. In the following traditional design for the words we can observe, where the initial letter is placed horizontally over the rest of the word so that the overall shape is a square. and you can see where the basic lines are placed to shape these full and empty spaces (Fig. 9).



Fig 8: The seal of Sheikh Abu Eshaq Kazeruni, The Īl-Khānids era (Jeddi, 2007).

ع	ق	ك	ا	ب	ا
	ق	ك	ا	ب	ا
ع	ق	ك	ا	ب	ا
ع	ق	ك	ا	ب	ا
ع	ق	ك	ا	ب	ا
			ق	ق	ق

Fig 9: The exact analysis of the words and letters on the seal of Sheikh Abu Eshaq Kazeruni.

Each square unit is the series of reliefs being equal. The Smaller square unit is not thicker

than the square unit in a grid, as shown by the example in figure 10:

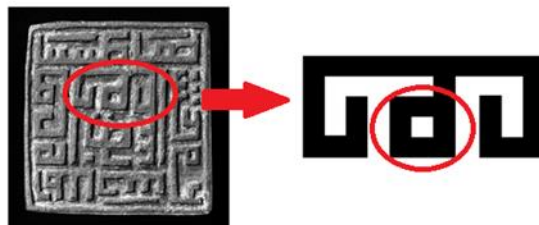


Fig 10: The order of black and white squares unit to the absence the evenness.

There is a block of four full spaces with black and white squares. On the center, a white square surrounded by four black spaces, on the right and the left. Anyhow, the evenness has disappeared. In more complex composition, such structures would stand out as they break the total stability. The rules demonstrate the creation process of Rectangular Kufic scripts is a composition of the space so that no irregular square is left. Each horizontal and vertical structure in the grid of a Square Kufic text is a potential baseline, and each word can face in a different direction.

In figure 11, the same lines can be seen in the Chinese seals (印章). A similar combination of lines, especially in the word Allah (الله), and the letter Ein (ع) can be seen in examples of the Chinese seals (印章). The direction and movement of the parallel lines and the right angles bear a resemblance to the Rectangular Kufic script. In general, horizontal and vertical is the main component of cuneiform and the most basic stroke in Chinese calligraphy and Rectangular is one of the commonest forms of calligraphy (Wu, 2020). Also, the composition of the space in this seal shows regularity in the arrangement of blocks of squares.



Fig 11: Chinese seal, taken from the Qian Xuan painting (633-701/1235-1301) Yuan dynasty, Metropolitan Museum, New York.

In figure 12, other seals mentioned here are an octagon shape and a square with a triangle on top of it. The design of one of the seals consisting of two interlocking octagon-based shapes drawn within a quasi-circle and rows of horizontal and vertical lines has covered the whole geometric space. Rectangular Kufic scripts are shown as vertical and horizontal lines which is the main component of cuneiform and the most basic stroke in Chinese calligraphy. Another seal is a square that contains the horizontal and vertical lines of Rectangular Kufic scripts and at the top of this seal, there is a triangle with the Persian script. However, this seal has artistic patterns that make it an exception to other examples.

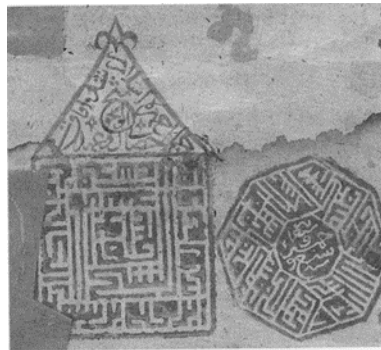


Fig 12: The inscription of two red seals on a decree related to the tomb of Sheikh Abu Eshaq Kazeruni, The Īl-Khānids era (Jeddi, 2007).



Fig 13: The exact analysis of the words and letters on inscription of two red seals of Sheikh Abu Eshaq Kazeruni.

Figure 13, contrasts with other examples; the whole geometrical space is covered with Rectangular Kufic scripts and the Chinese artist has chosen a square space for the contents of the seal. Also, he has allowed the angles of the square within the circle to be empty, therefore it can be similar to the previous example. One can conclude that the artist organizes a

composition in this way to make the resemblance of the word Allah in Rectangular Kufic, with little focus on the combinations of the seal content in the first quarter from the right.

Figure 14 demonstrates not only a circular seal in which the Chinese artist uses angled lines but also demonstrates his creativity by adding curves to the lines.



Fig 14: Chinese Seal, taken from the Zhoo Mengfu painting (652-722/1254-1322), Yuan dynasty Washington Free Art Gallery, Smithsonian Institute.

The method of writing of the name of Muhammad, the last prophet of the Muslims, in Kufic script in Figure 2 is comparable to the Chinese script in Figure 15. The words Muhammad Rasoolullah (محمد رسول الله), there is no god except Allah (لا اله الا الله), and Ali Un Wali Allah (على ولي الله) are noticeable in figure 2; a coin belonging to the Īl-Khānids period, and are related to the Shi'ah beliefs and carved in Rectangular Kufic. The similar line combination can be seen in the next example in figure 15.



Fig 15: Chinese Seal, taken from the Zhao Mengfu painting (1254-1322) Yuan dynasty Washington, Freer Gallery Smithsonian Institution.

The examples of the Chinese Seals calligraphy shown in this article reveal a modest departure from the Rectangular Kufic script, though there are similarities to show. By carefully examining these Rectangular Kufic and Chinese calligraphy lines, one can understand the differences between these two types of lines in coins. “Thus, the meaning of each individual character is used to indicate the intended dimension of variation and many of these abstract

nouns denote aesthetic dimensions. Apparently, combining two words of opposite meaning is a typical way to coin abstract nouns in the Chinese language” (Li, 2010). but it is not a favored method of word formation in Rectangular Kufic.

Some official documents of the Īl-Khānids dynasty have a square-shaped red seal impression of a fixed size. Such red seals are called al Tamyā in Persian historical sources (Yarshater, 1982) The typical square-shaped red seal impression is shown in Figure 16.

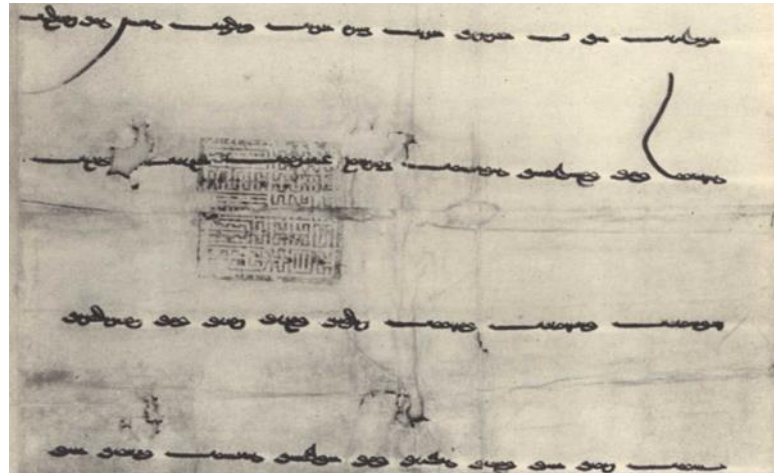


Fig 16: The lines of an Īl-Khānids decree by Abu Sa'id (in Uighur script) containing some common phrases. (document undated), Date based on reign of the Īl-khānids. Pelliot states that this decree was probably issued during the reign of Arghun (1284-91) because the Chinese seal is the same as in a letter from Arghun to Philip IV of France (1289) (Cleaves, 1953).

The lines of an Īl-Khānids decree by Abu Sa'id in Uighur script shows that the Chinese characters, which were hardly used in the Īl-Khānids court and Iranian-Islamic societies, adopted as official seals. “because the Īl-Khānids dynasty considered the Yuan (元朝) as a power, in principle at least, and Chinese Tamyas symbolized the authoritative power of the Mongolian Qayan (蒙古語). This indicates the solidarity between the Yuan and the Īl-Khānids dynasties” (Yokkaichi, 2010).

Mongolian is traditionally written in the vertical (Uyghur-Mongolian) script. The Mongolian vertical script developed as an adaptation of the Old Uyghur alphabet for the Mongolian language (Daniels, 1996). Traditional Mongolian is written vertically from top to bottom, flowing in lines from left to right. This developed because the Uyghurs rotated their Sogdian-derived script, originally written right to left, 90 degrees counterclockwise to emulate Chinese writing, but without changing the relative orientation of the letters (Kara, 1996). This order differs from that given in previous lines of an Īl-Khānids decree in figure 12, which was

based upon the traditional Mongolian arrangement of the script. This is important knowledge, but what is even more important is the existence of a square-shaped red seal impression on the Īl-Khānids decree.

In the general run of survey of seals and coins, while Chinese calligraphy is most readily distinguished by its characters, Rectangular Kufic scripts are neatly contained within a square form. The Chinese seals (印章) are often adorned with Chinese character called zhuan (转); they are also known as Zhuanke (篆刻) (seal cutting). Chinese scripts on seals are square and symmetrical in design, and these features are complemented by the squareness of the characters used in the Rectangular Kufic script and by their symmetrical arrangement.

However, on the seals, one often finds a pair of rectangle shaped lines hedged into the form, hanging in a string of chandeliers. This arrangement looks strange to the eye of someone familiar with Arabic decorative art in Central Asia or Iran, but looks perfectly natural to Chinese eyes accustomed to reading words boxed into a square.

The rotation of the square form of the Kufic script by forty-five degrees to form angles is a usual practice amongst Muslims, and may be an aesthetic choice that resonates with the arrangement commonly found on Arabic architecture, or it may reflect a conscious departure from the Chinese aesthetic veneration of the square. Muslims will also tend to choose a square frame at an angle of forty-five degrees. Common form of the Rectangular Kufic script is rectangular, with one of the names of God or the Prophet wrapped around an extended vertical stroke that is similar to scripts of the Chinese seals (印章). The distinct feature of the Chinese practice is simply the style of the script used, and here again the use of exaggerated rectangular and lithe strokes of Rectangular Kufic script are in evidence.

During the Yuan (Mongol) period (1260-1368) Persian was the primary language in much of Central Asia and a great many people from that area had settled in China. In addition, the Yuan dynasty enjoyed close relations with the Īl-Khānids rulers of Persia, and the Muslim communities in China also included large numbers of Persians and Persian speakers from western Asia (Barthold, 1956). In the light of historical information available, only a small number of people were able to read and write Chinese calligraphy in the Īl-Khānids court. Nonetheless, it can be said that the results of the analysis of the available series of the Īl-Khānids seals and coins do not contradict the Chinese characters. However, the top and bottom of each Chinese seal always takes the same direction. Like Uighur letters, the Mongol official documents were written in a longitudinal fashion. Also, the Chinese seals (印章) were also inserted in the same direction. On the other hand, in Persian documents, Arabic letters were written from right to left. the Chinese seals (印章) were inserted with their direction of top to the bottom, alongside the Persian lines of an Īl-Khānids decree by Abu Sa'id (see Fig. 16). "On the contrary, the seal inscribed in Arabic characters that appeared after the Sultan Oljeitti reign was inserted with their top upward and their bottom downward in the same direction as that of the Persian letters. Thus, there exists a strong possibility that the manner in which the Chinese

seals (印章) in Persian documents were inserted on the right side unexceptionally followed from the style of Mongolian documents” (Yokkaichi, 2010). In a way, the influence of traditional seals is seen in cultural regions like China and Persia.

Moreover, according to documents, in the Īl-Khānids period title of kings were written in Uighur language on coins while at end of this period the names and titles were written in Persian (Khak at al., 2013). Ghazan was one of greatest kings of the Īl-Khānids that during his reign (1295-1304) some reforms were conducted, for economic reconstruction such as reviving money circuit system, establishing a fixed rate for silver coins (a coins had an average weight about 13.6 gr) and forming a weighting system unit and scale for all over the territory. Although these reforms led to a relative economic improvement, this was not significant because of high rates of taxes (Boyle, 1968). Therefore, the usual method of following Mongolian documents and coins shows the influence of Persians as a result of trade and political relations through the Silk Road. Hence, it seems possible that at least the Persian-speaking peoples got their script culture, in some short time during the mongol period from the Uighur script.

IV. CONCLUSION

One of the most important consequences of the Mongol conquest of Iran that from the beginning of the beginning of Islam in Iran until that time was the re-emergence of art among Persian artists which due to the restrictions imposed by the Muslim rulers (Based on the fact that painting is a kind of spread of idolatry), were not permitted to engage in such matters. The rise of the Īl-Khānids dynasty was probably of crucial importance for Iran after the Mongol invasions. During this period, the cultural influence of China was felt in various regions of Iran.

This exploratory study examined the effects of Chinese seals (印章) and the Mon-golian writing systems in the Rectangular style of Kufic script on the Īl-Khānids seals and coins. The brief survey of calligraphy on seals and coins explores a field of Islamic Art, and studying the evolution process of the seals reveals essential issues related to the Inter-cultural influences on the Silk Road. In this case, one of the key issues is surveying the development of calligraphy on seals, both in the design and the following changes have been made by the Inter-cultural influences through the Silk Road.

The engraving on the Chinese seals (印章) goes back to centuries ago and links calligraphy to the art of engraving. The seals that were used to show possession, a practical need for signing documents, papers, and other objects; endured a Chinese calligraphy delicacy and established an artistic shape. Above all, an artist should have the ability to place many letters in a limited space. Therefore, a creative way of writing became fashionable in which words are angular and fitted in a geometrical design.

Because of the many cultural and political ties between the Īl-Khānids Persia and China,

Persian artists admired the Chinese method of seal engraving and endeavoured in creating the same artistic design with the Persian language in a fresh façade. In the Īl-Khānids era in regions under those rulers' control, several changes have occurred on coins both in a language and an image. As, the most important highlights of this art is the usage of vertical and horizontal lines in an angular fashion constrained in a geometric shape, and the Silk Road had played a significant role in increasing Inter-cultural influences between China and Iran, there are similarities between on the structure, design, and usage of the Chinese seals (印章) and the Īl-Khānids seals and coins. Therefore, the repeated Islamic motifs of the rectangular Kufic style, similar to the Uyghur script, is an essential factor in creating special conditions around the monument of authority in the Mongol Empire. So, the Silk Road was the turning point in the history of both countries and played a significant role in increasing cooperation between China and Iran. It facilitated the cultural exchange and people-to-people bonds between the two nations. In fact, from ancient times to the modern day, the influences of Persian and Chinese civilizations have been sensed in every sphere.

Also, in the Īl-Khānids era, there was great prosperity or rapid economic growth. So, booming jobs and increased orders for newly minted coins produced. The art, on the other hand, reappeared among Persian artists once again, which have been limited by the beliefs of Islam. Considering the impact of power of the Yuan (元朝) in the court of the Īl-Khānids, the comparison of the Chinese seals (印章) with the Īl-Khānids seals and coins offer the perfect starting point for any discussion of the Mongol Empire's impact on China, the Muslim world, and the West and illustrate the scale, diversity, and creativity of the cross-cultural exchange along the continental and maritime Silk Roads. Since, knowledge of culture is one of the key elements that allow nations to get a deep understanding of one another's political, economic, and social aspects. So it is necessary that nations have a proper understanding of their respective cultures in order to bolster their cooperation.

Finally, it should be noted that the contents contained in this study are necessarily based on assumptions and should therefore be considered cautiously as their certainty is not demonstrated.

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Khānids seals and coins belonging to various rulers.

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¹ After the death of Uljaytu in Sultaniyya in 716 H (1315 AD), he was succeeded by his son Abu Sa‘id, who was not yet twelve years old.

² At the very beginning of the Mongol Empire, around 1204, Genghis Khan defeated the Naimans and captured a Uyghur scribe called Tata-tonga, who then adapted the Uyghur alphabet—a descendant of the Syriac alphabet, via Sogdian—to write Mongol. With only minor modifications, it is used in Inner Mongolia to this day (Kara, 1996).

³³ Historically, the term was commonly applied to changes in the culture of non-Persian peoples living within the Persian cultural sphere, especially during the early and the middle Islamic periods (Bhatia, 2008).

⁴ The Ming (明) Dynasty (AD 1368–1644) on History of China (中国历史) was possibly the most important era regarding seal engravings in China. This era can be divided into two parts: Initial and developmental stages of seal engraving. Seal engravers were characterized into different schools according to their approach and technique. Among these schools, three techniques had the most influence; Chai Pak Shek (柴白石), Ng Cheong Yen (令角臆), and Chiue Cheehim (邱志谦). The artists of these three schools were also great painters, calligraphers, and poets. The seals were usually made out of wool, ivory, or precious stones and depicted names, political quotes, designs, and symbolic images. The seals are dipped into a red dough mixture and then pasted on the painting. The red dough is made out of Mercuric acid rubbed in silk and various oils.

⁵ The first mentioned dynasty in historical annals is the Shang (商) Dynasty; the Shang (商) ruled between 1766 BC and 1122 BC and enjoyed 600 years of existence and attained development especially in its early times. Direct information about the Shang (商) Dynasty comes from Shang (商) inscriptions on bronze artifacts, but mainly from oracle bones-turtle shells, cattle scapulae or bones on which were written the first significant corpus of recorded Chinese characters used in divination in Bronze Age China. Recently archaeologists became confident that the word “Shang (商)” is evidently distinguished on the oracle bones and turtle shells.

⁶ At the end of Qin (秦) Dynasty of China when epigraphy flourished, epigraphic ethos and metal hobbies spread producing many outstanding epigraphists (Chio, 2017).

⁷ The Han (漢朝) (206 BCE–220 CE) was the second imperial dynasty of China; they governed over large areas of east China. The Han (漢朝) dynasty established appealing policies for its people and endured a rather stable political situation. Therefore, the field of humanity and arts bloomed and handicrafts, merchandise, and natural sciences developed greatly. The trading industry of the age launched promising relations with other nations especially those of the west by means of the Silk Road (Zhou, 2003).

⁸ According to ancient Chinese cosmology, there existed a twofold world based on the principles of positivism and negation that penetrated in all matters; in other words, these elements were symbolically represented between Yin (阴) and Yang (杨). Initially, these concepts were related to the bright and dark areas of mountains and valleys; areas that were lightened up by the sun or darkened by its shadow. Yin (阴) insisted on the feminism, earth, darkness and, moon and inactiveness whereas Yang (杨) indicated masculinity, light, the sun and the sky and active elements of nature (Hall, 2018).

⁹ Uighur script developed from Aramaic-Syriac script and Phagspa developed from Tibetan at the court of the Great Khan Qubilai in Beijing in 1268-69. It was used on coins in the Mongolilkhanid and Chaghatay realms (Heidemann, 2010). Uighur can be defined as the act of fitting together and collaboration. In the Dehkhoda dictionary it is stated

that the Uyghurs initially resided around the Jeyhun River in the seventh/first century and quickly expanded their territory. They succeeded in conquering Mongolia in the early eighth century and overthrew the Tang 唐 dynasty.

¹⁰ The Īl-Khānids named the seal in their native language as “Tamaki”; this was pronounced as “Damga”; among the Arabic and Persian. Tamaki would have been known as “Alton Tamaki” if it were ornamented with gold and if it were accompanied with dark ink it was regarded as “Al Tamaki” or “Tara Tamaki.” The word “Al” in Turkish refers to the sovereign’s seal and “Al Tamaki” (red seal) in Moaleghi refers to the command and seal of the monarch. Furthermore, Tamaki always endures the meaning of toll and tax; therefore, it refers to the seal that is printed on items in trade (Jeddi, 2007).

¹¹ This carefully-struck gold dinar, the first type of Abu Sa‘id’s reign, was struck at the mints of Shiraz and Abu Ishaq in southern Iran. The obverse has the square in circle design first introduced by the Almohad ruler ‘Abd al-Mu‘min ibn ‘Ali in North Africa two hundred years earlier, and repudiates Uljatu’s Shi‘ite beliefs by inscribing the Sunni kalima. The reverse warns Abu Sa‘id’s subjects of his power over them with the alarming title, “our Lord the Sultan, King of the Necks of the Peoples.”

¹² In the Mongol empire, a personal seal in black ink of a noyan or amīr was called qara-tamya or qārā-tamgā (Yokkaichi 2010).