

A COMPARATIVE STUDY OF THE IRANIAN TOWERS OF THE SALJUQS AND THE CHINESE PAGODAS OF THE SONG DYNASTY

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This article compares two Iranian towers (burj) of the Saljuq period (c.1037-1194) with two Chinese Pagodas (t'a) of the Song dynasty (c.960-1279) in order to identify common cultural trends in medieval Iranian and Chinese architecture. To this end, the Iranian towers of Tuqrul in Rayy and Chihil Dukhtar in Damghan are compared with their Chinese counterparts of the Iron Pagoda in Kaifeng and the Pizhi Pagoda in Changqing. The two Iranian towers have much simpler architectural decorations compared to the splendid Song pagodas, which are decorated with statues and colorful paintings. The similarities in form, however, suggest common functions provided by the architecture. Both the Saljuq and Song towers had astronomical and military functions, position identification for travelers, and symbolic meanings, as well as their main functions as tombs. By applying comparative studies on the forms and functions of the Tuqrul and Chihil Dukhtar towers on the one hand, and the Iron and Pizhi Pagodas, on the other hand, this article aims to contribute new insights regarding common social trends shared by the medieval Iranian and Chinese and illustrated by their architecture. Extensive and distinguished publications on the general subject of art and architecture during the reign of the two dynasties under discussion already exist, as fully referenced below, but the specific comparative themes regarding the individual sites discussed here are the first in any study of this kind.

Keywords: Saljuq Dynasty, Tuqrul Tower, Chihil Dukhtar Tower, Song Dynasty, Iron Pagoda, and Pizhi Pagoda.

Medieval monuments and buildings are among the main sources from which social trends of the time may be inferred and illustrated, particularly in the absence of lost historical texts

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and documents. Comparative studies of the forms and functions of architectural buildings can therefore assist historical researchers to discover new findings about the common features shared by different civilizations.

In this context, there is evidence of significantly similar political and social circumstances experienced by the Saljuq and Song dynasties of medieval Iran and China respectively, which led to some interesting parallels in cultural affairs, in addition to their long reigns over vast territories. This common factor is particularly recognizable when we learn that as in medieval Iran, the Song dynasty moved its capital from the city of Bianjing (Kaifeng) to Linan (now Hangzhou) in the southern region of the Yellow River, when it was conquered by the Jin dynasty and lost control of the northern China.¹ The history of this dynasty then, is divided into the Northern Song (960-1127) and the Southern Song (c.1127-1279) periods. In a similar way, the Saljuq dynasty in Iran (c.1037-1194) had capitals in Rayy, Marv and Isfahan and its name survived under the Saljuqs of Rum (c.1093-1308).

The declines of these two dynasties also show remarkable similarities. The nomadic tribes of Mongols living in the steppe areas of Central Asia invaded the civilized territories of China to the East and Iran to the West under the leadership of Chingiz Khan (r. c.1206-1227) and his descendants. After defeating the Khwarazmshahs (c.1077-1231) who had conquered the Saljuqs of Iran, Hulegu, another Mongol ruler, founded the Ilkhanid dynasty in Iran and subsequently conquered the Saljuqs of Rum. In a similar vein, the Jin Dynasty, Western Xia, and the Dali Kingdom were also conquered by the Mongols to be followed by the invasion of the Southern Song dynasty by the Mongol forces under Kublai Khan (c.1260-1294), who founded the Yuan dynasty.

Besides the obvious similarities at the beginning and end of their respective long reigns, the Saljuq and Song dynasties also shared an age of flowering in the expansion of their territories. In central Asia, for example, the Turkmen Saljuqs originated from the Qynyk branch of the Oghuz Turks, converted to Islam, and gradually migrated from the periphery of the Muslim territories in the Aral northern Caspian and the Oxus to the more central Khurasan. The Saljuqs began as less civilized nomadic tribes but through the guidance of Iranian ministers such as Amid-al-Mulk (c.1072-1092) and Khwaja Nizam (c.1018-1092)² and under the leadership of Tuqrul Beg (r.c.1037-1063) they eventually dominated vast territories from Transoxiana to the Mediterranean Sea, a feat unprecedented among the local Islamic dynasties in Iran.

The Saljuqs established a strong political structure based on Iranian bureaucracy as well as their own tribal customs. By applying a centralized feudal political system which relied on local authorities to sustain their power on such vast territories for more than two centuries, the

¹ Arthur Cotterell, *The Imperial Capitals of China, An Inside View of the Celestial Empire*, Great Britain: Pimlico, 2007, p. 147.

² Jawad Tabatabaie, *Khwaja Nizam al-Mulk*, Tehran: Tarh No', 2006, pp. 41-43.

Saljuqs provided the conditions for art³ and especially architectural development. Drawing on Iranian-Islamic traditions, they introduced significant innovations in architectural forms and functions and so provided future researchers with a detailed picture of Iranian society in medieval times. Innovations in plastering,⁴ tiling,⁵ and brickwork decorations⁶ were so outstanding that they developed a whole new style of architecture named *Razi* (originating from the word Razy).⁷ Social buildings were particularly innovative. These included such gathering places as markets (*bazar*),⁸ common baths,⁹ bridges,¹⁰ and subterranean water storage.¹¹ There were also underground refrigerators, and *Kaboutarkhana* (the nest of pigeons)¹² constructed

³ The Saljuqs had many ceramic art productions; Robert Hillenbrand, *Islamic Art and Architecture*, London, Thames and Hudson, 1999, p. 92; such as paintings, Barbara Brend, *Islamic Art*, Cambridge, Harvard University Press, 1991, p. 83; metal works, *ibid*, p. 90 and pottery, Richard Ettinghausen & et.al, *Islamic Art and Architecture*, New Haven, Yale University Press, 2001, pp. 176-177.

⁴ Plastering in the forms of flower, plant and geometrical patterns; see Arthur Upham Pope, *A Survey of Persian Art from Prehistoric Times to the Present*, London, Oxford, American Institute of Persian Art and Archaeology, VIII, Tehran, Asia Institute of Pahlavi University, 1967. p.147. Plastering was also in Eslimi patterns; see Pourjafar Mousavi Hejazi and Muhammad Reza Bahar, "Ta'sirpaziri-yi Nehzat-i Hunar wa Pishina-yi Englestan az Hunar-i Eslami", *Nashri-yi Hunarha-yi Ziba*, 2002, 12 p. 124; Vahida Ramezani, "Barresi-yi Waziyat-i Me'mari dar Iran ba Ta'kid bar Mafhoum wa Karbari-yi Banaha", *Tarikh-pajouhi*, 2005, 24-25 p. 22; Siawash Qandi, "Naqsh-i Kashi dar Me'mari-yi Irani", *Hunarha-yi Tajassomi*, 2003, 20 pp. 183-185; Asiya Jawadi, *Me'mari-yi Iran*, 84 Maqala be qalam-i 33 Pajouheshgar-i Irani, Tehran, Mujarrad, 1984, , pp. 713-717). Inscriptions of Masjid-i Jami (1130) and Masjid-i Heidariya in Qazvin, Masjid-i Alavian in Hamedan, Masjid-i Jami in Ardestan (1160), altar of Imamzada Karar in Bouzan (1133), Kufic inscriptions of Madrase-yi Khargerd in Turbat-i Jam (c.1054 to 1092), Mahnaz Shayestefar, "Maqbare-yi Chihil Dukhtaran-i Damqan", *Hunarha-yi Tajassomi*, 2002, 16, p. 65; Muhammad Yousuf Kiani, *Tarikh-i Hunar-i Me'mari-yi Iran dar Dure-yi Eslami*, Tehran, Samt, 1995, p. 25.

⁵ Tiling was used in decorating buildings. The first Glazed tiles of the Saljuqs were used in Gunbad-i Surkh (1148) and Gunbad-i Kabud (1197) in Maragheh, and dome of Masjid-i Khwaja Atabak in Kerman (1136), Qulam Ali Hatam, *Me'mari-yi Eslami-yi Iran dar dure-yi Saljuqian*, Tehran, Jihad Daneshgahi, 2000, p. 98; Hillenbrand, *The Art of the Saljuqs in Iran as Anatolia*, pp. 68-69; Ettinghausen & et.al, *Islamic Art and Architecture*, p. 176.

⁶ To learn more about the Brickworks of the Saljuq Dynasty see Seyyed Qayoum "Tarikhche-yi Me'mari dar dure-yi Salajeqe, Helal, 1972, 117 p. 74; Hillenbrand, *Islamic Art and Architecture*, p. 95.

⁷ Muhammad Karim Pirnia, *Sabkshenasi-yi Me'mari-yi Irani*, ed. by Qulam Hussein Me'marian, Tehran: Pajouhandeh wa Me'mar, 2001, pp. 158-162.

⁸ Kiani, *Tarikh-i Hunar-i Me'mari-yi Iran dar dure-yi Eslami*, p. 141; Pirnia, *Sabkshenasi-yi Me'mari-yi Irani*, p. 123.

⁹ Muhsen Tabasi, & Muhammad Reza Pourjafar, "Ta'sir-i Me'mari-yi Garmabeha-yi Iran bar Hammamha-yi Eslami-yi Felestin", *Mudares-i Hunar*, 2007, 1, pp. 64-65; Qayoum, "Tarikhche-yi Me'mari dar dure-yi Salajeqa, p. 70.

¹⁰ Hillenbrand, *The Art of the Saljuqs in Iran as Anatolia*, pp. 269-274.

¹¹ Kiani, *Tarikh-i Hunar-i Me'mari-yi Iran dar dure-yi Eslami*, p. 142; Tabasi, & Pourjafar, "Ta'sir-i Me'mari-yi Garmabeha-yi Iran bar Hammamha-yi Eslami-yi Felestin", p. 166.

¹² Kabutarkhana (the nest of pigeons) is one of the prominent Iranian medieval towers whose background refers to the pre-Islamic times; Seyyed Ayatullah Mirzaie, "Muqayese-yi Barkhi Wijegiha wa Karkerdha-yi Iran and England", *Ulum-i Ejtema'i-yi Allama*, 2007, 37 p. 132). The Kabutarkhana were mainly constructed in areas of mild temperatures, beside rivers, canals, and aqueducts. The further they got from the plains, the fewer were the number

under Saljuq patronage.¹³ The main buildings of the Saljuq era however, were religious constructions and included mosques,¹⁴ minarets,¹⁵ schools,¹⁶ and mausoleums.

Similarly, in the Far East, the period of the Song dynasty was one of the most dynamic of all Chinese dynasties in terms of technological innovations and economic developments.¹⁷

of Kaburakhana; Marjan Muhammadinejad, "Burj-i Kabutarkhana", *Rushd-i Amuzesh-i Hunar*, 2011, 28 pp. 13-14. Kabutarkhanas were also constructed in Yazd and Azerbaijan; *ibid*, p. 115. In ancient times, breeding pigeons was common in Isfahan and there were special markets in which birds such as pigeons were sold; Ala'al-Din Azari Damirchi "Kabutar wa Kabutarkhanaha-yi Esfahan", *Hunar wa Mardum*, 1972, 115 p. 34.

¹³ Hillenbrand, *the Islamic Art and Architecture*, p.110; Zahir al-Din Zahiri Neishabouri, *SaljuqSaljuqnama*, ed. by Mirza Esma'il Afshar, Muhammad Ramezani, Tehran, Asatir, 2001, p.3.

¹⁴ In Iran, mosques are religious buildings of the Islamic era which were constructed on the foundations of the Zoroastrian fire temples. Atiq or Masjid-i Jami in Isfahan, Pope, *A Survey of Persian Art from Prehistoric Times to the Present*, VIII, pp. 265-266, 396; Lutfullah Hunarfar, "Az Masjid-i Deilami-yi Jurjir ta Qubbe-yi Saljuqi Taj al-Mulk, Razha-yi Me'mari-yi Asil Irani", *Hunar wa Me'mari*, 1994, 25 p.70; Ezzatollah Rukoui'e, "Negahi be Me'imari-yi Masajid-i Avvaliyeh wa Murouri dar Se Masjid-i Saljuqi", *Chista*, 1998 & 1999, 156-157, p. 498; Richard Ettinghausen, et.al, *Islamic Art and Architecture*, pp. 139-141; Brend, *Islamic Art*, p. 75; Masjid-i Jami in Zavareh, see Rukoui'e, "Negahi be Me'imari-yi Masajid Avvaliye wa Murouri dar Se Masjid-i Saljuqi", p. 503), Masjid-i Jami in Qazvin and Gulpayegan, Namazgah in Bukhara, see Seyed Muhammad Tariqi, "Wijegiha-yi Me'mari Masajed-i Eslami", *Hunar*, 1995, 33 pp. 542-543; Masjed al-Ala'adin in Minor Asia, Muhammad Khazaie, "Huzour-i Anasur-i Taz'ini Irani dar Ravand-i Sheklgiri-yi Taz'inat-i Me'mari Saljuqian Rum dar Asiya-yi Saqir, *Ketab-i Mah-i Hunar*, 2007, 103 & 104, p. 41 are some examples of the outstanding mosques of the Saljuq era.

¹⁵ The minarets of Masjid Damghan or the minaret of Tarikhana; Pope, *A Survey of Persian Art from Prehistoric Times to the Present*, V. VIII, p. 359; Muhammad Karim Pirnia, *Ashnaie be Me'mari-yi Eslami-yi Iran, Sakhtemanha-yi Duroun-shahri wa Buroun-shahri*, ed. Gulamhussein Me'marian, Tehran: Soroush-i Danesh, 2005, p. 162. To learn more about the architecture of minarets in the Islamic countries see Jonathan Bloom, *The Minaret*, Edinburgh, Edinburgh University Press, 2013.

¹⁶ At the beginning of Islamic rule in Iran, education was primarily conducted in the mosques. Due to the development of diverse fields of science many schools were established as independent constructions. However, their forms are in accordance with those of mosques. Khwaja Nizam al-Mulk developed many schools throughout the Saljuq cities called Madrese-yi Nizamiya. Madrese-yi Rayy and Khargerd are two examples of the Nizamiyeh schools in the Saljuq Era. Kiani, *Tarikh-i Hunar-i Me'mari-yi Iran dar dure-yi Eslami*, pp. 139-140; Jawad Askari Chawurdi, "Hunar, Farhang wa Tamaddun-i 'Asr-i Saljuqi, *Ketab-i Mah-i Hunar, No*, 2010, 146 pp. 114; Zaki Muhammad, Hasan, *Sanaie' Iran bad az Eslam*, tr. Muhammad Ali Khalili, Tehran, Eqbal, 1941, p. 12; Shiela S. Blair, *The Monumental Inscriptions from Early Islamic Iran and Transoxiana*, Studies in Islamic Art and Architecture, v.5, Leiden, Netherland: Brill, 1992, p. 130.

¹⁷ Franz Michael, *China through the Ages, History of a Civilization*, Boulder and London: West View Press, 1986, pp. 125-128. The inventions of the Song, including the magnetic maritime compass, printing with wood blocks and movable clay type, gunpowder and firearms, and large-scale porcelain production had worldwide importance when they spread eventually to the rest of the world, along with profound consequences for China in the economic, military, and social realms; Robert, L. Thorp & Richard Ellis Vinograd, *Chinese Art & Culture*, New York, Harry N. Abrams, INC. Publishers, 2001, p. 60; Paper money was first used in the Song dynasty, Patricia Buckley Ebrely & et.al., *East Asia: A Cultural, Social, and Political History*, Boston: Houghton Mifflin, 2013, p. 167. J.A.G. Roberts, *A History of China*, London: Palgrave Macmillan, 2006, pp. 85-86.

Moreover, the bureaucratic system led by great ministers such as Wang Anshi (c.1021-1086)¹⁸ brought about remarkable developments in literature,¹⁹ art,²⁰ and architecture. Under their patronage, new cities were established and a great number of functional buildings as well as creations such as palaces, gardens, and bridges, as well as institutions of higher learning²¹ and observatories,²² were designed. These were in addition to the numerous mausoleums. Taoist, Confucian and particularly Buddhist temples attested to the range and depth of Song religious attitudes.²³

In order to explore the similarities between the Saljuq and Song architectural styles, the reader must envision a journey from Iran to China. In Iran, the two Saljuq towers of Tuqrul in Rayy and Chihil Dukhtar in Damghan, and in China, the Iron Pagoda in Kaifeng and Pizhi in Changqing present the most interesting opportunities for comparison. Common features of the two Saljuq towers in Iran, and the two Pagodas in Kaifeng and Changqing include their specific functions as symbols of their respective dynasties. This was a period of the construction of numerous towers in all parts of Iran, which had begun with earlier dynasties such as the Ziyarids (ca.931-1090) and the Buyids (ca.931-1090). Their initiatives in building towers (*burj*) became one of the main characteristics of Saljuq architecture.²⁴ They also decorated them with novel techniques and turned the towers into symbols of the Saljuq dynasty itself. Similarly, many pagodas were constructed during the Song dynasty to manifest

¹⁸ Michael, *China through the Ages, History of a Civilization*, pp. 125-128; Roberts, *A History of China*, pp. 86-91; Cotterell, *The Imperial Capitals of China, An Inside View of the Celestial Empire*, pp. 158-160.

¹⁹ Michael Leowe, *The Pride that Was China*, New York: Sidgwick and Jackson, st. Martin's Press, 1990, p. 100; Willard, et.al. 1994, p. 63.

²⁰ Franz Michael, *China through the Ages, History of a Civilization*, Boulder and London: West View Press, 1986, p. 119; In ceramics, for example, there were technical innovations in manufacturing and the rise of landscape painting as an independent genre may have been linked to urbanization and changing land economics. In the Song era the culture of foreign, border peoples, and the status of women as active participants in artistic culture, as well as the diversity of Buddhist religious arts were encouraged, Thorp & Vinograd, *Chinese Art & Culture* p. 226; Roberts, *A History of China*, pp. 98-101. Michael, *China through the Ages, History of a Civilization*, pp. 131-133; Michael Sullivan, *The Arts of China*, Los Angeles & Berkeley: University of California Press, 1967, pp. 161, 181-182; Morris Rossabi, *A History of China*, Chichester, West Sussex, Malden, MA, Wiley Blackwell, 2014, pp. 198-199.

²¹ Liang Ssu-Ch'eng, *Chinese Architecture, a Pictorial History*, Cambridge: The Massachusetts of Technology, 1984, p. 175.

²² Wang Qijun, *Chinese Architecture*, Shanghai: Better Link Press, 2011, pp. 70-71.

²³ Willard J. Peterson & et.al., *The Power of Culture*, Studies in Chinese Cultural History, Hong Kong: Chinese University Press, 1994, pp. 170-171; Qijun, *Chinese Architecture*, p. 9; G.H.R., Tillotson, *Paradigms of Indian Architecture, Space and Time in Representation and Design*, England: Curzon Press, 1998, pp. 33-35; Michael, *China through the Ages*, pp. 129-130.

²⁴ Eric Broug, *Islamic Geometric Design*, New York: Thomas and Hudson, 2013, p. 17; Issam El-Said, *Islamic Art and Architecture, the System of Geometric Design*, ed. Tarek El-Bouri and Keith Gritchlow, general editor Salma Samar Damulji, Lebanon: Issam El-Said Foundation, 1993, pp. 121-123.

the power of the Emperor.²⁵ The Iron Pagoda in Kaifeng and the Pizhi pagoda in Changqing were two specific examples of pagodas that were redesigned under the patronage of the Song dynasty. These towers and pagodas which now seem so heterogeneous in the context of modern buildings are profound traces of the medieval eras of both Iran and China.

REVIEW OF RELATED RESEARCH

A number of research works such as *Islamic Art and Architecture* by Robert Hillenbrand²⁶ and *The Formation of Islamic Art* by Oleg Grabar²⁷ have examined the architectural features and aesthetic values of medieval Islamic architecture. These are in addition to *A Survey of Persian art from Prehistoric Times to the Present* by Arthur Upham Pope,²⁸ and *Sabkshenasi-yi Me'mari-yi Irani* by Muhammad Karim Pirnia²⁹ which have addressed the particularities of the architectural features of Iran including the Saljuq Dynasty. The essays in the volume *The Art of the Saljuqs in Iran as Anatolia, Proceedings of a Symposium held in Edinburgh in 1982* ed. by Robert Hillenbrand provide additional information about the topics and scholars related to the Saljuq period and include achievements such as the architecture of mosques and minarets. When considering the Saljuq towers, *The Monumental Inscriptions from Early Islamic Iran and Transoxiana* by Shiela Blair³⁰ have helped scholars learn more about the details of Saljuq monuments such as the Chihil Dukhtar. This book focuses on the architectural and commemorative inscriptions of medieval Iran from Mesopotamia to Transoxiana, and from the Persian Gulf to Caucasus during the first five centuries of the Muslim Era but could not have included an examination of the second Saljuq site, the Tuqrol Tower, since its inscription is missing. The short entry of Bernard O'Kane on "Borj-i To ġrol" manages to provide rich information about the date of this Saljuq tower.³¹

With regard to Chinese Architecture in Medieval times, on the other hand, *Chinese Architecture, a Pictorial History* by Liang Ssu-Ch'eng³² describes, by means of photographs

²⁵ Ssu-Ch'eng, *Chinese Architecture*, pp. 124-125.

²⁶ Robert Hillenbrand, *Islamic Art and Architecture*, London, Thames and Hudson, 1999.

²⁷ Oleg Grabar, *The Formation of Islamic*, New Haven and London, Yale University Press, 1973.

²⁸ Arthur Upham Pope, *A Survey of Persian Art from Prehistoric Times to the Present*, London, Oxford, American Institute of Persian Art and Archaeology, 1938.

²⁹ Muhammad Karim Pirnia, *Sabkshenasi-yi Me'mari-yi Irani*, ed. by Qulam Hussein Me'marian, Tehran: Pajouhandeh wa Me'mar, 2001.

³⁰ Shiela Blair. *The Monumental Inscriptions from Early Islamic Iran and Transoxiana*, Studies in Islamic Art and Architecture, v.5, Leiden, Netherland: Brill, 1992.

³¹ Bernard O'Kane, "Borj-i Toqrol", *Encyclopedia Iranica*, [http://www.iranicaonline.org/articles/borj-i Togrol-tomb-tower-of-the-Saljuq-period](http://www.iranicaonline.org/articles/borj-i-Togrol-tomb-tower-of-the-Saljuq-period).

³² Ssu-Ch'eng, Liang, *Chinese Architecture, a Pictorial History*, Cambridge: The Massachusetts of Technology, 1984.

and drawings, the development of Chinese structural systems and the evolution of their types. To learn more about Chinese pagodas in general and the Pizhi and Iron Pagodas, in particular, one must turn to the scholarly work of *Ancient Pagodas in China*, Beijing, Foreign Languages Press, 1994 by Zhewen, Lou. This volume is particularly helpful, especially considering that there are few English scholarly works written about the Song Pagodas. Such studies remain to be written.

Despite individual studies of Saljuq and of the Song architecture, however, no comparative studies have been performed regarding either the architectural forms or functions of the two dynasties or the common cultural trends behind them. Nor are there any individual studies of the four towers which form the subject of the present analysis and comparison. To bridge such gaps, this article begins with a brief description of these four constructions, continues with a comparative examination of their architectural forms and functions, and concludes by addressing the origins and cultural trends shared by the Muslim Saljuqs and the Buddhist Song Empires.

INDIVIDUAL ARCHITECTURAL SITES

Tuqrul Tower

Tuqrul Tower is located in the northern west of Rayy, in the center of Iran, near the two Shiite shrines of Imamzada Abdul Azim³³ and Ibn Babwayh.³⁴ Rayy, the first capital of the Saljuq dynasty, in the vicinity of the present Iranian capital, Tehran, was well known as a center of Shiite Islam during the Saljuq period, and had long been a central site of Shiite tombs. All the houses and gardens which once surrounded the Tuqrul tower³⁵ have been replaced by discordant houses, a giant factory and a newly constructed mosque next to the tower.

Measuring 20 m. in height, 16/6 m. in exterior diameter and 11 m. in interior



Tuqrul Tower

³³ Abdul-Azim (795-866) was the grandson of Hasan ibn Ali, the second Shiite Imam.

³⁴ Abu Jafar Muhammad ibn Ali ibn Babwiah al-Qummi (923-991) is a well-known Shiite scholar in the Buyid era.

³⁵ Seyed Ahmad Muhit Tabatabai, "Burj-i Tuqrul ya Maqbare-yi Ebrahim Khavas", *Keihan-i Farhangi*, 1987, 40 p.28.

diameter, the Tuqrul cylindrical tower is located in a beautiful courtyard. Because the Kufic inscription of the tower is missing, the exact date of its construction is unknown. Blair posits that it was built in 1140;³⁶ however, the anonymous author of *Mujmal al-Tawarikh* (1126) reports that he visited the tower³⁷ and so it had to have been constructed during Tuqrul's rule (c.1037-1063), based on the author's life span. Of particular help in establishing a date is an iron plaque, now in the Museum of Art at the University of Michigan, Ann Arbor. It has been established that this plaque, which contains a craftsman's signature and the date Rajab, 534/March, 1140, was originally located over the door of the tower³⁸, though it is not clear whether the iron plaque is specific to the tower itself or to its door alone. Hillenbrand remarks that the date is well in keeping with the form of the stalactite cornice.³⁹ It may, therefore, until any conflicting evidence emerges, be taken as the probable date of the tower itself.⁴⁰

Like Gunbad Qabous, the Tuqrul tower is composed of zigzagged cross-sections on its exterior. Twenty-four triangular flanges on the exterior, resembling a sundial, contribute to the stability of the structure of the tower against earthquakes. Its dome is missing because of the earthquake in c.1176, in addition to the Mongol invasion of Rayy in c.1229.⁴¹ Considering the shape of the chamber and the evidence provided by other medieval tombs, the Tuqrul was possibly built with a conical roof. On his way to Mashhad, Nasir al-Din Shah (c.1848-1896) ordered restorations to be made to the top section of the tower, which was collapsing in c.1882.⁴² Nineteenth-century drawings show that before the restoration a Kufic inscription was originally present above the cornice.⁴³

Parallel to the wooden doors of the courtyard, the Tuqrul tower has two arched niche entrances to the north and the south facades. The doors to these two rectangular framed entrances are missing. The upper area of the exterior is comprised of three decorative bands with no inscription.⁴⁴ The interior of the chamber is made simply of plain bricks in keeping with Islamic tradition. The holes in the inner walls, which were once used to hold up the upper parts of the walls and the conical dome, are now inhabited by pigeons and other birds. The Tower manages to resist moisture by allowing air to pass through channels at the bottom of

³⁶ Blair, *The Monumental Inscriptions from Early Islamic Iran and Transoxiana*, p. 146.

³⁷ *Mujmal al-Tawarikh wa al-Qesas*, ed. by Muhammad Taqi Bahar, Muhammad Ramezani, Tehran, Khawar, 1940, p. 465.

³⁸ Oleg Grabar, "The Earliest Islamic Commemorative Structures," 1966, *Ars Orientalis* 6, pp. 46.

³⁹ Robert Hillenbrand, *The Tomb Towers of Iran*, Ph.D. thesis, University of Oxford, 1974, p. 85.

⁴⁰ Bernard O'Kane, "Borj-i Togrol", *Encyclopedia Iranica*, <http://www.iranicaonline.org/articles/borj-i-togrol-tomb-tower-of-the-saljuq-period>.

⁴¹ Hamdullah Mustowfi, Nuzhat al-Quloub, ed. Muhammad Dabirsiaqi, Tehran, Tahouri, 1957, p. 53.

⁴² Muhit Tabatabai, "Burj-i Tuqrul ya Maqbare-yiEbrahim Khavas", p. 28.

⁴³ O'Kane, Bernard, "Borj-i Togrol", *Encyclopedia Iranica*. Saljuq

⁴⁴ Ettinghausen & et.al, *Islamic Art and Architecture*, p. 146.

the walls. The spiral staircase within the wall, reaching to the northern entrance, allows access to the roof level.⁴⁵

Chihil Dukhtar Tower

The Chihil Dukhtar or Chihil Dukhtaran Tower is located within the enclosure of Imamzada Jafar,⁴⁶ in Damghan, in central Iran.⁴⁷ This site was originally outside the *hisar* or city wall of Damghan and was probably situated in an old cemetery. It was developed some time later due to its location on the road from Tehran to Mashhad and now is located in the center of Damghan.⁴⁸ Based on the Kufic inscription above the single entrance, the tower was constructed under the patronage of a Daylami Commander named Amir Abu Shuja Asfar ibn Kurdwayha in c.1054.⁴⁹



Chihil Dukhtar

This cylindrical 14.8 m. high tower with interior diameter 5.5 m. and exterior diameter 7.80 m. also has a conical roof. The title “Chihil Dukhtar” or “Chihil Dukhtaran” (female) is related to the Iranian pre-Islamic Era. It is probable that the Chihil Dukhtar tower in Damghan,

⁴⁵ Parviz Varjavand, *Tazi'nat-i Me'mari-yi Eslami, Ajurkari, Me'mari-yi Iran*, Hunar-i Eslami, ed. Muhammad Yusef Kiani, Tehran: Ershad-i Eslami, 1987, pp. 307-309.

⁴⁶ He is known as the son of Ali ibn Hussein, the fourth Shiite Imam.

⁴⁷ Damghan is one of the central cities of Iran. As the main city of Ghumes, Damghan flourished during the Buyid, the Ziyarid and the Saljuq dynasties. The presence of many monuments confirms this fact. Ibn Faqih Hamedani, Ahmad Ibn Muhammad, *Mukhtasar al-Buldan*, tr. H. Masoud, Tehran, Bunyad-i Farhangi-yi Iran, 1970, p. 167; Ahmad ibn Eshaq Yaqubi, *Al-Buldan*, tr. Ebrahim Ayati, Tehran, Tarjuma wa Nashr-i Ketab, 1968, p. 52; Muhammad Khan Hakim, *Ganj-i Danesh*, Tehran: Zarrin, 1975, p. 862; Muhammad Hasan E'temad al-Saltana, *Matla' al-Shams*, ed. Timur Burhan Limudehi, Tehran: Farhangsara, 1983, v. 3, p. 256; Abu al-Fada, Isma'il ibn Ali, *Taqvim al-Buldan*, Tehran: Bunyad-i Farhangi-yi Iran, 1966, p. 498; Yaqut ibn Abdullah Hamawi, *Mu'jam al-Buldan*, v. 4, Tehran: Sa'di, 1965, v. 4, p. 203; Abdul Rafi' Haqiqat, *Tarikh-i Ghumes*, Tehran: Kumes, 2001.

⁴⁸ Alireza Anisi, *Early Islamic Architecture in Iran, 637-1059*, Ph.D. Thesis, University of Edinburgh, 2008, p. 309; Blair, *The Monumental Inscriptions from Early Islamic Iran and Transoxiana*, p. 123.

⁴⁹ Nikolai Khanykov, *Safarnamaya Khanykov*, tr. into Persian. Aqdas Yaqmaie & Abul Qasim Bigunah, Mashhad: Astan-i Quds, 1996, p. 87.

like the one in Simnan, was originally constructed primarily of adobe and was reconstructed in the 11th century with the brick and semi-conical roof.⁵⁰

The courtyard has two entrances. It is worth noting that women must be shrouded with *chador* within the shrine. However, if they enter from the back entrance of the Chihil Dukhtar tower, there is no need to be shrouded with the *chador*, so women feel safe in the privacy of the tower. The primary entrance to the tower is 1/87 to 2/55 m. with a crescent arch. Its inner wall is covered with plaster and is very simply paved with bricks. On the basis of its inscription, the Chihil Dukhtar Tower seems to be a family tomb.⁵¹ At the present time, there is a tomb which does not fit the structure of the tower. It seems evident that this was established later.

The decoration above the exterior flanges also comprises three decorative bands but in this case, there is an inscription. The bands encircle the tomb below the corbelled cornice.⁵² The scripts used for the inscriptions on the Chihil Dukhtar are delicately elongated and the knots are frequent, so that the brick decoration of the upper zone forms a complete match with the bodies of the letters in the lower one.⁵³

THE CHINESE PAGODAS

Iron Pagoda

An important innovation of the Song dynasty was the construction of brick towers, of which a good number similar to the Iron Pagoda survive. The octagonal Iron Pagoda is located at Yougou Temple in Kaifeng, in Henan Province in the north of China. Kaifeng, along the southern bank of the Yellow River, was the capital of the Northern Song dynasty.⁵⁴ It is the oldest and largest extant pagoda of red, brown, blue and green glazed bricks, but it resembles iron from a distance and so has been called the Iron Pagoda for hundreds of years.⁵⁵

⁵⁰ Haqiqat, *Tarikh-i Ghumes*, Tehran: Kumes, p. 315.

⁵¹ Shayestefar, "Maqbare-yi Chihil Dukhtar-i Damqan", p.67. The Kufic inscription of the tower is "رما لمحبب مبرت همونل ادعشم مبونذ {رفغ} ا و ن ع طلا یضرن افضصا ریپ یگب رافسا عاجشوبال لیلجل ریمالا هبقلا هذہ انا بب طلا محبب» زین و «ہیام عبرا و نیعبرا و تس تنس یف ہی ع طلا یلص دمحم انیبنب فقا و مهل طلا رفغ دالو الو مل «طل کلما افضصا ریپ یگبرافسا عاجشوبال لیلجل ریمالا

Its translation: Basmala. The exalted Amir Abu Shuja Afsar Begi, Pir of Isfahan, may God be pleased with him and forgive his sins, ordered the construction of this cupola, preparing for his sleep a tomb for himself and his sons, may God forgive them and join him to our Prophet Muhammad, may God bless Him, in the year four hundred forty-six {12 April 1054- 1 April 1055}” and also “In the name of God. The exalted Amir Abu Shuja Asar Begi Pir of Isfahan. Dominion belongs to God”, Blair, *The Monumental Inscriptions from Early Islamic Iran and Transoxiana*, p. 123.

⁵² Anisi, *Early Islamic Architecture in Iran*, p. 310; Ettinghausen & et.al. *Islamic Art and Architecture*, p. 146.

⁵³ Blair, *The Monumental Inscriptions from Early Islamic Iran and Transoxiana*, p. 125.

⁵⁴ Cotterell, *The Imperial Capitals of China, An Inside View of the Celestial Empire*, pp. 145-147.

⁵⁵ Maarten Prak, “Mega-structures of the Middle Ages: the Construction of religious buildings in Europe and Asia, c.

The predecessor of the Iron Pagoda was a huge octagonal thirteen-storey wooden pagoda called Lingwei. About 1044, during the Northern Song Dynasty, Lingwei was struck by lightning and collapsed. Around 1049, Emperor Renzong ordered that another pagoda to be built on the same site. This time, it was constructed of fire-resistant glazed bricks. About 1841, the Yellow River overflowed and the Yougou Temple was destroyed in the flood, but the Iron Pagoda remained firm, despite winds, torrential rains, and earthquakes.⁵⁶

The thirteen-storey brick structure, modeled after its wooden counterparts, is 56.66 m. high. At the center of the pagoda stands a large column, a feature of Chinese architecture in pagodas that was discontinued sometime after the Song and Yuan periods. The eaves of the Iron Pagoda project outwards to support the interior skeleton and they also permit light to penetrate to the interior of the building, despite its wide overhang. Within the interior, there is a spiral stone staircase leading to the thirteenth floor and there are intermittent openings which allow for light and air to flow through.⁵⁷

Underneath the main structure is a high stone pedestal that has long been buried by mud due to frequent flooding when the Yellow River overflows. The present pagoda has doors on four sides, but people can only approach by the steps on the north side for this reason.

The doors, windows, pillars, bracket supports, pent roofs and balconies on the pagoda exterior are all modeled after wooden ones. The glazed bricks are lined with ordinary bricks, perhaps for reinforcement. The outer walls, corner pillars, doors, windows and bracket supports are all composed of glazed bricks of various colors. On these component parts more than fifty ornamental designs are carved. Inside the Pagoda is painted with classical Chinese tales, such as “the Journey to the West”.⁵⁸



Iron Pagoda

1000-1500”, *Journal of Global History*, 2011, v. 6, 3 p. 386; Lou Zhewen, Lou, *Ancient Pagodas in China*, Beijing, Foreign Languages Press, 1994, p. 111; Ssu-Che’ng, *Chinese Architecture*, p. 148.

⁵⁶ Lou Zhewen, *Ancient Pagodas in China*, p. 111; Else Glahn, “Chinese Building Standards in the 12th Century”, *Scientific American*, 244, 5, 1981, p. 132; Lothar Ledderose, *Ten Thousand Things: Module and Mass Production in Chinese Art*, Princeton, NJ: Princeton University Press, 2000, pp. 106, 110.

⁵⁷ Ssu, *Chinese Architecture, a Pictorial History*, p. 12.

⁵⁸ D. Leeming, *Journey to the West*, (a part of *A Dictionary of Asian Mythology*), Oxford: Oxford University Press, 2001.

Pizhi Pagoda

The brick Pizhi (P'i-chih) pagoda is located at the Lingyan Temple in Changqing, in Shandong Province, in the east of China. Originally built around 753, during the reign of the Tang dynasty, it was reconstructed several hundred years later during the last reigning years of Emperor Renzong of Song, who ruled from about 1022 to to 1063.⁵⁹ Pizhi is the Chinese translation of Pratyeka or Pratyeka-Buddha, and was used to refer to people who lived in the times after Sakyamuni died. He had gained insights through self-study and cultivation and became a Buddha.⁶⁰

This octagonal-based, nine-story , brick and stone pagoda stands at a height of 54 m. The basic structure of the pagoda is built of brick, although the exterior facade has carved stone elements. The first, second, and the third stories feature balconies supported by *dougong*⁶¹, typical Chinese brackets. From the



Pizhi Pagoda

fourth story to the ninth, there are only pent roofs and no balconies. A large brick pillar and brick stairway leads all the way to the fifth floor, but after that only a winding brick staircase exterior to the pagoda is available for people to climb to the top.⁶²

Small iron statues of celestial guards are positioned on the corner ridges. At the base of the pagoda is a stone pedestal carved on all four sides with scenes of the Buddhist afterlife and torture scenes in Hell.⁶³

⁵⁹ Ssu-Ch'eng, *Chinese Architecture, a Pictorial History*, p. 148.

⁶⁰ Zhewen, *Ancient Pagodas in China*, p. 111.

⁶¹ To learn more about *dougong* see Yan Sui & et.al. "Experimental Study on Stiffness of Dougong in Chinese Ancient Buildings", *Advanced Materials Research*, 2011, v. 368-373, pp. 819-822.

⁶² Zhewen, *Ancient Pagodas in China*, p. 111.

⁶³ *ibid.*

COMPARISONS

Forms of Both Towers and Pagodas

Towers were usually constructed near religious buildings such as Mosques and Shrines honored by Muslims. Having conquered the Shiite city of Rayy, Tuqrul ordered his tomb to be constructed near the Shiite Shrines of Abdul Azim and Ibn Babwayh.⁶⁴ Chihil Dukhtar is also built within the enclosure of Imamzada Jafar, a notable Shiite figure. It seems this fact that these two towers were adjacent to religious buildings contributed to their durability over time.

In a similar way, pagodas, multi-storey, solid or hollow structures, made of stone, brick, or wood, are usually associated with Buddhist temple complexes.⁶⁵ The Iron Pagoda and the Pizhi Pagoda are both part of temple complexes that no longer remain. Built in the open air in the form of a high earth platform far from halls or palaces,⁶⁶ the Iron Pagoda is located at Yougou Temple in Kaifeng. Likewise, the brick Pizhi (P'i-chih) pagoda is located at the Lingyan Temple in Changqing.



Tuqrul Tower



Chihil Dukhtar

⁶⁴ Muhit Tabatabaie, "Burj-i Tuqrul ya Maqbare-yi Ebrahim Khavas", p.28

⁶⁵ Ssu-Ch'eng, *Chinese Architecture, a Pictorial History*, p. 124.

⁶⁶ Qijun, *Chinese Architecture*, p. 60.

The towers of Iran are usually in octagonal or cylindrical forms. However, like the Tuqrul and Chihil Dukhtar Towers, cylindrical towers were more common in Saljuq times. The main characteristic of the towers is their emphasis on height. Even though it was built near the Shiite Shrines, the Tuqrul Tower perches on an isolated spot to emphasize the height of the building,⁶⁷ although the height of Chihil Dukhtar is overshadowed by the shrine of Imamzada Jafar. These two towers are only one storey, high, so rarely does their height exceed 40 meters.⁶⁸

On the other hand, a pagoda is the combination of two principal components: the indigenous multi-storied watch towers (*lou*) of the Han era and the Indian *stupa*.⁶⁹ Generally from its first appearance up to the present day, the Chinese pagoda has remained essentially a multi-storey tower surmounted by a pile of metal discs. The two pagodas of Iron and Pizhi from the Song dynasty, like other pagodas of their time, are octagonal, composed of several stories, which are usually even numbered. The forms of these two pagodas are characterized by the unique introduction of vertical and horizontal masonry interior divisions in the form of galleries and built-in stairs. These divisions are a significant departure from the old hollow shell and present an entirely different aspect to the interior.⁷⁰ There are increasingly lightened areas made by enlarging the galleries at each level until the structure becomes vertically a brick masonry core with a semi-detached shell.⁷¹ So the sources of light in the towers and pagodas, though unique, functioned by utilizing the increasing height for access to sunlight.



Iron Pagoda



Pizhi Pagoda

⁶⁷ Anisi, *Early Islamic Architecture in Iran*, 637-1059, p. 88.

⁶⁸ Some Ziyarid towers are also taller, for example the Gunbad Qabous built in 1018 is 57m. high see Human Sharif, "Mil-i Gunbad-i Qabous", *Rushd-i Amuzesh-i Hunar*, 2007, 11 pp. 11.

⁶⁹ Thorp & Vinograd, *Chinese Art & Culture*, p. 166; combining the indigenous multi-storied watch towers (*lou*) of the Han era and the Indian *stupa*, the Chinese pagoda may be classified into four principal types: one storied, multi storied, multi eave, and *stupa*; Ssu-Ch'eng, p. *Chinese Architecture, a Pictorial History*. 124.

⁷⁰ Ssu-Ch'eng, *Chinese Architecture, a Pictorial History*, p. 140.

⁷¹ As the one-storied pagoda gradually disappeared, changes also took place in the taller structures. The octagonal plan became the norm, and the wooden floors and stairs that used to divide and connect the stories gave way to masonry floors and stairs. Ssu-Ch'eng, *Chinese Architecture, a Pictorial History*, p. 141.

Because Islamic architecture was founded on Islamic beliefs, paintings and sculptures were not usually used to decorate the monuments.⁷² Hence, the towers of Tuqrul and Chihil Dukhtar were decorated with brickwork only in order to showcase their delicate simplicity and nakedness. The Tuqrul Tower in Rayy⁷³ and Chihil Dukhtar in Damghan are two Saljuq towers whose brick structures are reminiscent of naked beautiful bodies lying under the sunlight. The brick bands around these towers are basic decorations. In Chihil Dukhtar, the decorative bands flanked its broad Kufic inscription band around the tower.

The brickwork decorating the Saljuq towers also contributed to its stability. The Tuqrul cylindrical shaft is broken by 24 huge triangular flanges that start from the plinth and rise to the corbelled cornice supporting the conical roof which is now missing. These triangular flanges show the role of structural elements themselves as decoration, and they create a new structural/decorative type, characterized by the so-called star-shaped shaft.⁷⁴

Based on Islamic architectural tradition, paintings and sculptures were not used to decorate the towers.⁷⁵ Hence, the Saljuq towers usually have a plain interior and a decorated exterior. Both the corbelled cornice of the roof and the area around the entrance of the tower are ornamented with decorative patterns and inscriptions. The main entrance to the Tuqrul tower with its decorative bricks is like the mouth of an angry snarling lion protecting its territory. The Saljuq towers frequently have conical roofs such as the missing roof of the Tuqrul Tower or semi-conical domes like Chihil Dukhtar's. Employing a conical roof both increases the height of the building and protects its structure in rainy conditions.

Unlike the Saljuq towers, the Iron Pagoda and the Pizhi are designed with a greater variety of form, materials, colors, and decorations. The arts of painting and carving are employed to decorate the pagodas with more elegance. There are more than fifty ornamental designs carved into the component parts, including images of the Buddha and bodhisattvas. The decorative extravagance also runs to flying apsarases, heavenly kings, standing monks, celestial guards, singers and flying dancers, musicians, lions, unicorns, peony and lotus flowers and figurines. Furthermore, inside the Pagoda classical Chinese tales have been painted in order to convey religious notions more effectively. The tale of "Journey to the West", painted inside the Iron Pagoda and the scenes of the Buddhist afterlife and torture scenes in Hell carved on the stone

⁷² Varjavand, *Tazi'nat-i Me'mari-yi Eslami*, pp. 307-309; Grabar, *The Formation of Islamic Art*, p. 77.

⁷³ The city of Rayy, known to Greeks as Rhages and officially called Muhammadiyya during the Abbasid Caliphate, is one of the oldest cities in the world. It owed its long life and prosperity to its situation at the junction of main roads, one running east-west from Mesopotamia and Baghdad through Rayy and Khurasan, the other north-south from Azerbaijan down to the Persian Gulf; Guy Le Strange, *The Lands of the Eastern Caliphate: Mesopotamia, Persia and Central Asia from the Muslim Conquest to the Time of the Timur*, New York, AMS Press, 1976, pp. 216-218; V. V. Barthold, *An Historical Geography of Iran*, Princeton, N.J.: Princeton University Press, 1984, pp. 121-26.

⁷⁴ Anisi, *Early Islamic Architecture in Iran, 637-1059*, p. 89.

⁷⁵ Parviz Varjavand, *Tazi'nat-i Me'mari-yi Eslami*, pp. 307-309.

pedestal in the basement of the Pizhi are but two examples of Song decorative and educational patterns.

The decorative patterns also cleverly reinforce the stability of the pagodas. In Pizhi pagoda, the small iron statues of celestial guards were positioned on the corner ridges near the chains in order to keep the chains firmly in place as well as to decorate the exterior. Moreover, the frequent danger of fire also persuaded the Song architects to construct pagodas with brick. The Iron Pagoda had been struck by lightning and so was rebuilt with the fireproof red, brown, blue and green glazed bricks.

Aside from fire, the pagodas also had to cope with problems of high winds and earthquakes. It was for this reason that the wooden post-and-beam method of building was often used, set on a concrete platform but not inserted into it. The curved shape of the roofs helped the wind skid over the structure while the extension of the roofs also protected the wooden frame from the rain.⁷⁶

FUNCTIONS OF IRANIAN TOWERS AND CHINESE PAGODAS

Due to the small amount of usable interior space, the towers of the Saljuqs including the towers of Tuqrul and Chihil Dukhtar, do not have many useful functions. Located near the main roads, in particular the Silk Road, the tall towers guided travelers to find routes leading to the cities. Based on the relationship between the earth and the sun, *Burj* literally means the months of a year. Keeping this in mind, towers were constructed in specific spots to help people learn more about the time of the day and even the seasons.⁷⁷ This is particularly true of the Tuqrul Tower, whose twenty-four triangular flanges on the exterior turn the tower into an impressive sundial. These locational and temporal uses were specific to the Iranian towers and the needs of the people of the territory and are not exhibited in Chinese pagodas.

The Song pagodas, however, helped travelers find their way home rather than being a stop on a larger trade route.⁷⁸ In addition, they had more varied functions. Ascending to enjoy a distant view was one of the earliest uses of ancient Chinese pagodas and was part of a long tradition. Because pagodas were usually the highest buildings in any city, they tended to dominate the skyline and so profoundly impacted the perception of the constructed environment among residents and visitors alike.⁷⁹ The ancient pagoda builders created many

⁷⁶ Prak, *Mega-Structures of the Middle Ages: the construction of religious buildings in Europe and Asia, c. 1000–1500*, p. 385; Glahn, ‘Chinese Building Standards in the 12th Century’, *Scientific American*, p. 132; Ledderose, *Ten Thousand Things: Module and Mass Production in Chinese Art*, pp. 106, 110.

⁷⁷ Seyyed Hussein Nasr, “Mukhtasari darbare-yi Tahqiqat-i Nuwin dar Tarikh-i Nujum-i Eslami”, *Ma’aref Eslami*, 1966, 2 p. 38.

⁷⁸ Richard Gunde, *Culture and Customs of China*, London, Greenwood Press, 2002, pp. 146-147.

⁷⁹ Hu Lin, “Perceptions of Liao Urban Landscapes, Political Practices and Nomadic Empires”, *Archaeological*

innovations in the structure to facilitate the observation of distant landscapes. This required the introduction of easy-to-climb stairs, broadened doors and windows, and large balconies around the trunk of the pagoda. These functions, with their aesthetic purposes, were not part of the Iranian tower traditions.

With regard to military purposes, the pagodas were also used as watchtowers. Ancient pagodas were not only tall but also had large interior spaces to manage the movement of military hardware. Some ancient pagodas became landmarks for harbors or port cities, a precursor of later lighthouses. Other pagodas became symbols for a city, a certain region, or even for a certain scenic area.⁸⁰

Some pagodas were erected solely for geomantic reasons. The tall towers were supposed to have some mysterious effect on *Fung Shui*, the mystic spirit of the mighty Dragon, who rules over wind and water, and controls all human destinies. Several of the finest nine storey pagodas like the Pizhi in the neighborhood of Canton were erected for this purpose, in the belief that through them, any lurking evils would be dispelled, and the general peace and prosperity of the province insured.⁸¹

THE MAIN FUNCTIONS OF TOWERS AND PAGODAS

Regardless of all the secondary functions attributed to the towers and pagodas, they were primarily intended as monumental tombs for important people and this is the main similarity between these two kinds of monuments. Originally developed in two separate and disparate cultures, the Saljuq towers and the Song pagodas have their own histories but serve the same original impulse. With respect to the towers, some scholars believe that the construction of a large number of towers in medieval times and especially under the Saljuq rule is due to the spread of Sufism in Iran. Sufism itself refers to a number of schools of Islamic mystical philosophy and theology and to the phenomenon of religious orders and guilds (*tariqat*) that exerted considerable influence over the development of expressions of popular piety and devotion to shrines found throughout the Islamic world.⁸² Sufi characters were honored by the Saljuq rulers and their bureaucrats. Khwaja Nizam al-Mulk, for instance, was responsible for the construction of many tombs and shrines for the Sufis.⁸³

Dialogues, v. 18, 2011, 2 p. 238.

⁸⁰ Donato Abruzzese & et al., "Mechanical Behavior of Leaning Masonry Huzho Pagoda", *Journal of Cultural Heritage*, 2009, 10 pp. 480-481.

⁸¹ A.H. Longhurst, A.H. *The Story of Stupa*, New Delhi, Asian Educational Services, 1979, p. 4.

⁸² Jamal J. Elias, "Sufism", *Iranian Studies*, 1998, 3-4, pp. 595; see also Saiyid Zaheer Husain Jafri & Reified, Helmut, *The Islamic Path, Sufism, Politics and Society in India*, New Delhi, Rainbow Publishers, 2006.

⁸³ Shayestefar, Mahnaz, "Maqbare-yi Chihil Dukhtaran-i Damqan", p.66.

On the marble plaque made after the restoration of the Tuqrul Tower in Nasir al-Din Shah's rule, the tower is named "Buq'aya Tuqrul". Buq'a usually refers to the tombs of Sufis rather than the tomb of the founder of the Saljuq dynasty. Hence, based on the accounts of Ibn Jwazi, Muhit Tabatabai concludes that this Tower was originally the tomb of Ibrahim Khawas, an outstanding Sufi of the 8th century.⁸⁴

Rejecting this interpretation, other scholars considered the Tuqrul Tower to be the monument of Khalil Sultan, the son of Timur (c.1370-1405) and his wife, Shad al-Mulk. Refusing to take sides in these controversies, Pope calls it the tower of Rayy,⁸⁵ though Blair refers to it as the Tuqrul Tower.⁸⁶ It has also been posited that it was the family tomb made by the order of Tuqrul and meant for himself, his mother or his mistress.⁸⁷ The Chihil Dukhtar Tower is also considered to be a tomb for the family of Amir Abu Shuja Asfar ibn Kurdwayha, a notable Daylami commander.

Even though towers are now considered to be monuments of Islamic architecture, some scholars believe their origins lie in the Pre-Islamic era of Iran. Importantly, regarding the Chihil Dukhtar Tower, Bastani Parizi in *Khatuneh Haftqal'a* examines the origins of the word *dukhtar* in many monuments. These include towers, castles, minarets, bridges, shrines and temples.⁸⁸ He takes readers to all parts of Iran in medieval times, from Transoxiana to Greece in the Mediterranean area.⁸⁹ The identification of numerous examples of the word *dukhtar* on social buildings impresses many readers, such that Chihil Dukhtar tower in Damghan becomes but a single example among myriad historical buildings named *dukhtar*, along with its derivations and equivalents.⁹⁰

Applying a deductive approach, Bastani looks for the common characteristics of these monuments. He concludes that monuments which have sacred features were constructed

⁸⁴ Muhit Tababaie, "Burj-i Tuqrul ya Maqbare-yi Ebrahim Khavas", p.28.

⁸⁵ Pope, *A Survey of Persian Art from Prehistoric Times to the Present*, v. VIII, p. 346.

⁸⁶ Blair, *The Monumental Inscriptions from Early Islamic Iran and Transoxiana*, p. 146.

⁸⁷ Muhit Tababaie, "Burj-i Tuqrul ya Maqbare-yi Ebrahim Khavas", p. 28.

⁸⁸ Muhammad Ebrahim Bastani Parizi, *Khatun-i Haftqal'a, Majmueh Maqalat-i Tarikhi*, Tehran: Ruzbahan, 1989, p. 250.

⁸⁹ Bastani Parizi, *Khatun-i Haftqal'a*, p. 166.

⁹⁰ Towers of Dukhtar in Shiraz (p. 151), Baku (152), Khurasan (p. 152), Miyana (p. 153), Araq (p. 153), Shoushtar, Kanaman in Kerman, Shahrestanak, Qom and Nayin (p. 154), bridges of Miyana, Koru Dukhtar Lorestan (p.172), Behbahan (p.173), districts of Rayy (p.173), spring of Kazerun, Bibidukhtar shrines in Lar, Dome of Chihil Dukhtar Kashan (p.175), Bukhara (p.176) and Yazd (p.178) are just some examples brought in *Khatun-i Haftqal'a*. Regarding his great interest in Kerman, Bastani has dedicated a more detailed chapter to the towers of Kerman (pp. 156-164); *Bibi* (pp. 181-182), *Nane* (pp. 205-282), *Banu* (pp. 210 & 243-251), *Mar* and *Madar* (pp. 251-259), *Daye* and *Mama* (pp. 259-261), *Khahar* (pp. 263-264), *Zan* and *Pirzan* (pp. 264-280), proper names like *Shirin* (pp. 280-282), *Suleiman* and *Belqeis* (pp. 261-263), *Nahid* and *Anahita* (pp. 283-291) are some other words studied by Bastani. Moreover, equivalents of *dukhtar* in Kurdi (pp. 186-187), *Durha* in Bakhtiari (pp. 187-188), *dade* in Luri (pp. 188-189), *Laku* in Gilak (p. 192), and *Khatun* in Turkish (p. 193) accents are examined.

on mountains in pre-Islamic times and particularly during the Sassanid era (ca.224-651).⁹¹ With respect to their common features, Bastani proposes a plausible hypothesis that the word *dukhtar* and its derivations or equivalents refers to *Anahita*, the Iranian pre-Islamic goddess and to all feminine aspects of the ancient Iranian religion before the advent of Zoroaster. Associated with fertility, healing, and wisdom, *Nahid* or *Anahita* is a tall beautiful woman with goodness, courage, and purity.⁹² The ancient Iranian kings highly honored *Nahid* and constructed many *Anahita* temples. The Shush Temple constructed by Ardashir II (404-359 BCE) and the Cyrus tomb in Pasargad show that Anahita was highly honored.⁹³

In a similar way, pagodas in China went through many transformations before the Song era. Their origins seem to indicate that the pagoda moved to China along with Buddhism. They were primarily erected as monumental towers to house traces of a revered past, whether of the Buddha himself or the ashes of the eminent Buddhist monks or any other holy person, place, or thing associated with Buddhism.⁹⁴

The word pagoda in Sanskrit is *stupa*, which originally meant tomb.⁹⁵ Symbolizing sacred mountains, they were used to preserve or bury the remains of *Sakyamuni*, the founder of Buddhism, Buddhist saints, and kings. The *Stupa* is a hemispherical, domed and commemorative monument first constructed in Ancient India. The deceased were placed in a reliquary enclosed in a stone coffin, over which the *stupa* was built.⁹⁶ In India, the *stupa* was

⁹¹ Bastani Parizi, *Khatun-i Haftqal'a*, p. 194.

⁹² Bastani Parizi, *Khatun-i Haftqal'a*, p. 196; "She is the angel of water" "Four elements of soil, air, fire, and water are the religious principles of the Iranian people. There even were special *Izad* (Gods) and angels like the angel of water to protect these elements", Bastani Parizi, *Khatun-i Haftqal'a*, p. 194.

⁹³ Bastani Parizi, *Khatun-i Haftqal'a*, p. 191.

⁹⁴ Thorp & Vinograd, *Chinese Art & Culture*, 198-199.

⁹⁵ As Christian de Pee points out, a tomb "is a trace of conscious human activity like a text," and "its materiality allows a silent juxtaposition of incompatible worlds that the determinate text precludes." It "preserves in its words and even in its silence, a forgotten space, a prior time, a faint gesture, ancient ways of seeing and feeling," as a text does. Christian de Pee, *Writing of Weddings in Middle-Period China: Text and Ritual Practice in the Eighth through Fourteenth Centuries*, Albany: State University of New York Press, 2007, p. 246.

⁹⁶ Satish Grover, *Masterpieces of Traditional Indian Architecture*, Roli and Jassen BV: Lustre Press, 2004, p. 25; Longhurst, *The Story of Stupa*, p. 13. *Stupa* and being like Persian Persepolis palace, Grover, *Masterpieces of Traditional Indian Architecture*, p. 15; In all probability, it was during the reign of Asuka, after he made Buddhism the religion of the State, that the royal umbrella first became associated with the stupa in India, Himanshu Prabha Ray, *Sacred Landscapes in Asia, Shared Traditions, Multiple Histories*, prefaced by Kapila Vatsyayan, Manohar: Indian International Center, 2007, p. 66. These emblems of sovereignty are portrayed in the bas-reliefs and stone models as fixed to the lid of the tee in such a manner as made it impossible for anyone to open or tamper with the tee without first removing the umbrella. In this manner, the umbrella seems to have been a means of proclaiming to the public that the *stupas* were under the protection of the State, Longhurst, *The Story of Stupa*, pp. 16-17. In all these sculptural representations of *stupas* the tee is always shown surmounted by an umbrella, or a group of umbrellas to which banners or streamers are sometimes added, Longhurst, *ibid.*, p. 15. It is in Asia, however, that the umbrella plays an important part in the life and history of the people. Here it is not only the symbol of sovereignty, but partakes

simply a round domed tomb,⁹⁷ but once it was introduced to China in the first century CE, it immediately acquired the characteristics of Chinese classical architecture. Its design gradually became more elongated and cylindrical until the *stupa*'s upper portion took on an attenuated tower-like appearance.⁹⁸

Besides their primary functions as tombs of well-known characters, towers in Iran and pagodas in China became symbols of the Saljuq and Song rule throughout time. The rulers of these dynasties and the architects serving them established these magnificent towers in their capitals and other important cities to perpetuate their own names and their own political structures through architectural edifices. Though flourishing in the Ziyarid and Buyid periods, the towers later became symbols of power in the Saljuq dynasty. This was sufficient reason for the Sultan of Iran and the Song Emperors of China to construct towers all over their territories, and particularly in the capitals they ruled. Hence, the Tuqrul Tower was established in Rayy, to manifest Tuqrul's power. For similar reasons, pagodas gave expression and meaning to the landscape of China.⁹⁹ The Song, like other Chinese dynasties, tried to construct ever more splendid pagodas to exhibit their power.¹⁰⁰ The successful construction of a pagoda was a mark of great merit and evidence of power. Building a pagoda also constituted an act of propagating religion, since a pagoda visualized Buddhist order and power.¹⁰¹ As political symbols of the Song emperors, these pagodas, along with the temples and monasteries, which arose within the walls of Kaifeng and other important cities, assisted in legitimizing the rule of the new dynasty.¹⁰²

of a religious character, and is sometimes an object of veneration. This is particularly the case in Buddhist countries like China; *ibid.*, p. 3. There seems to be a good reason to assume that the idea first came from Persia, which led to its adoption in India as the emblem of sovereignty; Grover, *Masterpieces of Traditional Indian Architecture*, p. 24.

⁹⁷ Pema Dorjee, *Stupa and its Technology: A Tibeto-Buddhist Prospective*, forward by Joshi, M.C., New Delhi: Indira Gandhi National Centre for the Arts, 1996, p. 20; H. Sarkar, *Studies in Early Buddhist Architecture of India*, Delhi: Munshiran Manoharlal, 1966, pp. 25-28; Ray, *Sacred Landscapes in Asia, Shared Traditions, Multiple Histories*, pp. 63-64.

⁹⁸ Except for tombs with *sariras*, the ashes of *Sakyamun*, buried in them, the Indians built or carved pagodas in temples or stone caves. Abruzzese et al, "Mechanical Behavior of Leaning Masonry Huzhou Pagoda", pp. 480-481.

⁹⁹ Ssu-Ch'eng, *Chinese Architecture, a Pictorial History*, p. 124.

¹⁰⁰ Prak, "Mega-Structures of the Middle Ages: the construction of religious buildings in Europe and Asia", pp. 381-406; James W. P. Campbell, *Brick: A World History*, London: Thames & Hudson, 2003, p. 92.

¹⁰¹ K. Tosa, *Biruma-no-Weiza-Shinko, The Weikza Beliefs in Burma*, Tokyo: Keiso-shobo. 2000, pp. 129-133; Yoko Hayami, "Pagodas and Prophets: Contesting Sacred Space and Power among Buddhist Karen in Karen State", *the Journal of Asian Studies*, 2011, 70, 4 pp. 1086; Michael, *The Pride that Was China*, p. 99.

¹⁰² Pee, "Purchase on Power: Imperial Space and Commercial Space in Song-Dynasty Kaifeng, 960-1127", 2009, 53 pp. 155 & 176; Lin, "Perceptions of Liao Urban Landscapes, Political Practices and Nomadic Empires" p. 238.

CONCLUSION

Through comparing the Iranian towers of the Saljuq period with two Chinese Pagodas (*t'a*) of the Song period one can infer common cultural trends from the forms and functions of medieval Iranian and Chinese architecture. Cylindrical or octagonal brick Saljuq towers had a much simpler architectural decorative style in comparison to the splendid taller octagonal Song pagodas, which were decorated with statues and colorful paintings. Towers were usually constructed near religious buildings such as Mosques and Shrines to be honored by Muslims. Likewise, pagodas, the multi-story, solid or hollow structures, made of stone, brick, or wood, are usually associated with Buddhist temple complexes.

The Saljuq and Song towers had astronomical, military, and travel guide functions as well as being symbols of political power. They were, however, primarily intended as monumental tombs for notable people and this is one of the main similarities shared by these two types of monuments. Even though the Saljuq towers are now regarded as monuments of Islamic architecture, some scholars have identified the origins of such towers in Pre-Islamic temples of *Nahid* or *Anahita* in Iran. Likewise, 'pagoda' in Sanskrit is *stupa* and the construction came to China from India along with Buddhism. These too were primarily used to house some traces of the revered past, or remembrance of a holy person, place, or thing associated with Buddhism.

In sum, although the Iranian towers and the Chinese pagodas were culturally and religiously diverse, they shared common purposes and realities. And although their architectural styles and particularly the methods of decoration were unique, their functions and even their early history, show a similarity in marking location, establishing the rule, and memorializing the ancients.

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