

From Closed Capital to Open Metropolis: Transformation of Capital City in Tang and Song China, ca. 700-1100

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Abstract. Chang'an of the Tang dynasty (630-907) and Kaifeng of the Song dynasty (960-1127) represents two major stages in the development of the capital city in premodern China. In contrast to Chang'an, a semi-autonomous walled "urban village" separated by wide expanse of transitory space, Kaifeng was a dense city criss-crossed by ad hoc commercial streets filled with a variety of urban activities during days and nights. Indeed, during this period, a number of significant changes took place, which helped to erode the Tang urban structure and to give birth to a new, one in which the closed walled city transformed into an open market city. Based primarily on textual and material evidence, this paper outlines the characteristics of the layout and structure of the two cities and examines various aspects of the daily life in both cities. This comparative analysis sheds light on the unique pattern of transformation of cities in medieval China.

Keywords: Chinese capital city, city transformation, Chang'an, Kaifeng, Tang dynasty, Song dynasty.

Introduction

Historians of premodern Chinese urbanism have long assumed that the origins of the Chinese imperial city plan stem from a passage in the *Kaogong ji* (Record of Artificers) section of the classical text *Zhouli* (Rituals of Zhou), which describes the city of the King of Zhou (Fig. 1):

‘When the artificer build the capital, [the city should be] a square of nine *li* on each side, with three gates on each side. Within the capital are nine longitudinal and nine latitudinal streets, each of them nine carriages wide. On the left side is the Ancestral Temple, on the right are the Altars of Soil and Grain, in front is the Hall of Audience and behind, the markets’ (*Kaogong ji*, 2: 12a-12b).¹

Certainly Chinese imperial cities constructed during the last 2,000 years have much in common, but this does not mean that the above stipulation is the single source of all Chinese capitals. One should not be surprised to find that few, if any, capitals throughout the history of China conformed to the perfect diagram recognised by the *Kaogong ji*.² If the clearly articulated and directed spaces confined by nearly perfect geometric shapes as in Sui-Tang Chang'an and Ming-Qing Beijing share many similarities that somehow correspond to descriptions in the *Kaogong ji*, other cases of Chinese capitals demonstrate that an imperial capital was sometimes more extendedly created and defined by a complex nexus of political,

¹ For other versions of the translation, see in Steinhardt 1999, p. 33; Wheatley 1971, p. 411; Heng 1999, p. xvii.

² For the ideal layout of Chinese city as described in the *Kaogong ji*, see Sit 2010, pp. 94-100.

social, economical, and cultural forces (Steinhardt 1986; Sit 1995; Thilo 1996; Zhu 2004). A vivid example is Kaifeng, which as the imperial capital of the Five Dynasties (907-960) and the Northern Song dynasty (960-1127) links Chang'an and Beijing both geographically and chronologically. The transition from the late Tang to the early Song in the tenth century, as argued by Dieter Kuhn, 'marks the most decisive rupture in the history of imperial China' (2009, p. 1).³ Indeed, this transition is not only important in many aspects of Chinese social, cultural, and economic history, but also critical in the history of Chinese urbanism. After a brief introduction of ideal (capital) cities in traditional Chinese thoughts, the premier focus is laid on two capital cities in middle period China: Chang'an of the Tang dynasty (618-907) and Kaifeng of the following Song dynasty. Drawing on historical records as well as archaeological finds pertaining to Chang'an and Kaifeng, I shall show in this paper that the closed city as characterised by Tang Chang'an, rooted in the highly stratified society with a strong aristocratic impact, slowly eroded under the combined forces of political and economic changes to yield the seed of the open city in the middle of the tenth century. In concluding the article, some general remarks will be drawn to emphasise that parallel to this physical transformation, partly as the result and also partly as the reason of this breakdown, China entered a period of unprecedented growth of urbanisation, accompanied by the loosening of city controls and the emergence of a recognisable urban culture.

Chang'an: Capital of the Cosmopolitan Tang Empire

Hundreds of houses, hundreds of houses—like pieces on a chess-board,
 The twelve streets like the orderly paths between vegetable plots.
 In the distance I see faint and small the torches of riders to Court,
 Like a single constellation of stars lying to the west of the five gates.

—Bai Juyi, "Deng Guanyintai wangcheng" (Bai 1960, p. 5041).⁴

The orderly image and the silence of the Tang Chang'an at night were evoked by the poet Bai Juyi (772-846), written in 827. Nearly 250 years before Bai Juyi composed this poem, Yang Jian (541-604) seized power and founded the Sui dynasty (581-617). Motivated by his political vision of reuniting China under the rule of a single monarch, he ordered the construction of a city of glory in the Wei River valley (Yan 1997, p. 155). The gigantic new capital, with its wall measured 9.7 kilometres by 8.6 kilometres, was expected to become the symbol of his imperialist ambition (*Chang'an zhi*, 7: 7). Although the dynasty did not last so long as its founder wished, the capital Yang Jian built was inherited by their dynastic successor, the Tang. In the first decades of the new dynasty, substantial renovation and new construction was made to the capital, including a new imperial palace outside the northwestern city wall. In many respects the planning of the capital city followed the cosmological ideal of the antiquity, and it was designed by the Tang rulers as a symbol of the entire Chinese realm and of the new emperors' virtuous rule.

First, the capital walls were aligned on a squared grid which reflects the cosmic unity of heaven and earth shown in the assertion from the Warring States period: 'The Way of

³ The enormous differences between the Tang and Song dynasties and their historical importance was first inaugurated by Naito Konan in the 1920s, known as the "Naito Hypothesis", and this topic has since then attracted increasing scholarly attention. For the discussion on the Tang-Song transition, see among others Naito 1947; Hartwell 1982; Bol 1992; Lee 1999.

⁴ This translation is adapted from Waley 1961, p. 161.

heaven is circular, that of the earth is square' (Loewe 1998, pp. 997-998). The Palace City (*gongcheng*) was built in the north center of the outer walled enclosure and such a location is commonly believed to be attributed to the Confucian political philosophy that likens a benevolent ruler to the North Polar Star around which all starts orbit (*Lunyu*, 2:1).⁵ As Bai Juyi observed, what characterized Chang'an was a clear division of the city into distinct sub-blocks separated by wide avenues, not unlike a chessboard or a tablet of chocolate. Such a grid layout was formed by nine longitudinal and twelve latitudinal main streets (or eleven and fourteen if those on foot of the wall are counted), which divide the whole city into an axially symmetrical plan of 110 rectangular walled wards (108 wards + 2 markets), large and small (Fig. 2).⁶ On each side of the city, except the north side, three gates allowed entry. The number of the main streets and gates are not randomly selected since in Chinese numerical categories, the number three referred to the three powers of nature: Heaven, Earth, and Human; nine represented the canonical division of China into nine provinces by the legendary ruler Da Yu; and twelve corresponded to the twelve star constellations which in turn represented twelve months of the year (Lewis 2006, p. 239). The central axis linking the imperial complexes to the main south gate, the Gate of Bright Virtue (*Mingde men*), was the Avenue of Vermilion Bird (*Zhuque dajie*), measuring 150 to 150 metres wide (not including the 3-metre-wide ditches to both sides) (Fig. 3).⁷

It shall be noted that there is a very clearly defined separation of official functions and state machinery from other functions of the city to be observed in Tang Chang'an, although a few of the less important official departments were located in the wards next to the Avenue of Vermilion Bird. Most government offices of both civil and military functions, headquarters of imperial guards, and residence and offices of the crown prince were all located within the large walled enclosure of the Imperial City (*huangcheng*), which accounted for the administrative heart of the empire (Heng 1999, pp. 7-8) (Fig. 4). In the many two- or three-story mansion houses in the wards near the Imperial City lived the aristocratic families ranked just below the emperor, followed by families of officials with respected genealogies (Fig. 5). Rich merchants and well-educated people, as well as Buddhist monasteries and temples, came next in the social hierarchy (Heng 1999, p. 16, fig. 14; p. 25, fig. 17). A rather strict distinction by class—which kept aristocrats from living near officials, and officials from living near commoners—were reflected in the size and location of the wards (Fig. 6).

As the recent archaeological discovery shows, the walls of the wards measured 3 metres high and 2.5 to 3 metres thick (Zhongguo kexueyuan kaogu yanjiusuo Xi'an fajuedui 1961, p. 601). Each ward and crossroads were guarded and social contacts between the wards were limited to the official hours, because the wards were closed off at night by the ward headman (*fangzheng*) who was responsible for keeping order and for seeing tax collection and labor duties (*Tanglü shuyi*, 8: 199; Kuhn 2009, p. 189). Only temples or monastic establishments and officials above rank 3b were relieved from curfew constraints and were allowed to have a door that opened directly to the street, whereas houses of commoners were confined to the interior of the wards (*Tang huiyao*, 86: 1576; Kuhn 2009, 190). As the capital of the cosmopolitan Tang empire, which situated at the eastern end of the silk roads, Chang'an enjoyed brisk trading activity and was a international bazaar. However, all these

⁵ Such attribution was claimed by many scholars, including Qian 1958, p. 20; Shang 1991.

⁶ Size of the wards varies from 500 to 590 metres by 580 to 700 metres for those flanking the main axis, to 600 to 883 metres by 1020 to 1125 metres for those to both sides of the palaces. For a study of the size of wards, see Twitchett 1968, pp. 63-65.

⁷ Like all other roads in the city, this road was made of compacted earth; see Zhongguo kexueyuan kaogu yanjiusuo Xi'an fajuedui 1961, p. 600.

commercial activities took place in the two especially designed markets within the city, the East Market and the West Market, also known as Duhui and Liren, respectively.

Order in Tang Chang'an was disrupted when An Lushan (703-757), an eminent military governor of the Tang, rose to rebellion in 755. When he marched towards Chang'an in 756, the capital was abandoned to the rebel forces and only recaptured a year later. The capital once again suffered enormous destruction when the Tibetan Tubos stormed and torched the city in 763. Although the rebellion was eventually quelled, the once all-powerful central government could never recover its control over many provinces and it was besieged by problems more pressing than that of urban control.

Immediately after the turmoil of the mid eighth century, the breakdown of the stringent urban system in Chang'an was witnessed. For instance, a series of imperial edicts were issued in the late 750s to prohibit commoners from piercing private doors in ward walls for direct access to the avenues (*Tang huiyao*, 86: 1867). Consequent memorials and edicts calling for restoring order to those streets that had been encroached upon by walls and structures were seen in the following decades, suggesting that measures of the government were of no avail and urban order further deteriorated (*Tang huiyao*, 86: 1867, 1874, 1877). When the Japanese monk Ennin (793-864) and the Arab traveller Ebn Wahab visited Chang'an during the third quarter of the ninth century, they noted that the rigidly zoned city made up of regulated walled wards was gradually loosening up and small scale commerce appeared in many wards (Heng 1999, p. 71; Kuhn 2009, p. 189). In 880 Chang'an again fell into the hands of the forces of the peasant uprisings of 874-884 and it took the imperial forces three years to recapture the capital. Although the rebellion was suppressed, it had thrown the empire into disarray and its capital could never recover its former glory and prosperity: "[w]hat remained of useable building materials was rafted down river to a warlord's capital and farmers gradually moved back to claim the land where, for more than three centuries, the great city had stood" (Wright 1965, p. 668).

Kaifeng: Prosperous Capital of the Song Dynasty

Any inhabitant of the early Tang Chang'an transposed to the Song Capital Kaifeng would have found an urban environment vastly different from his own. Instead of the walled wards he would have seen a dense city crisscrossed by ad hoc commercial streets filled with a variety of urban activities. In addition, the layout of the capital lacked fixed symmetry, nor was there proper north-south alignment or a strict boundary defined by a city wall (Fig. 7). Rather than a perfect square as Chang'an, Kaifeng had such an irregular shape that it was described as a 'crouching cow' (*Song Dongjing kao*, 24: 339; Kuhn 2009, p. 194). Neither the wall nor the streets were organised as a grid compass, representing a sharp contrast to Chang'an. Such an unusual shape of the imperial capital was created out of a number of practical reasons. First, it was constructed mainly out of defensive reasons rather than cosmological symbolism. Well-connected by rivers, canals, and roads, Kaifeng enjoyed easy access to the grains and commodities from the fertile southern and southeastern provinces. But at the same time, its geographical position on the open north China plain made it extremely vulnerable to military attacks by northern nomads (and Kaifeng indeed fell when the Jurchen cavalymen attacked from the north in 1126).

Second, the Song capital was physically much smaller than Chang'an, because it was not built from scratch, but was cased on the foundations provided by the site of the earlier prefectural government of the Tang, when Kaifeng was only the seat of the prefecture.

In fact, Kaifeng was in comparison to Chang'an a relatively modest city. Its outer wall has a perimeter of merely 27 kilometres as compared to the ca. 37 kilometres of the Tang capital. Even after reinforcement and extensions, Kaifeng's intramural area was only about 60% that of Tang Chang'an. Not only was the city as a whole smaller than its Tang predecessor, but so was the Imperial City. Chang'an's Palace City alone, which was only a part of the Imperial City, was ten times larger than the size of Kaifeng's Imperial City.

Third, and most importantly, that Kaifeng was not designed with the strict linearity of Tang cities was, as Linda Cooke Johnson notes, "due in large part to the Song government's inability to impose controls and restrictions" (2001, p. 487). After the founding emperors had consolidated the empire, following Song rulers, in particular Zhenzong (r. 998-1022) and Renzong (r. 1023-1063) turned their attention to the increasingly cluttered capital, trying to revive the system of walled wards in the bustling city of Kaifeng. However, we do not know whether the system that was planned was in fact followed. But we do know that in 965, the dynastic founder had already abolished the curfew system, so that city dwellers were allowed to stroll the street of Kaifeng till midnight (Kuhn 2009, p. 194). Probably, the system was though inaugurated but never fully implemented. In the first half of the eleventh century, several decrees were issued to dismantle structures encroaching the roadway, but there was no further mention of the wards. When the maintenance of shops and houses behind the predetermined street limit was becoming ever more difficult toward the end of the century, the Song authorities eventually gave up its measures against the encroachment by charging the offenders a rent for the infringement of roadways, instead of demolition. Business opening directly to the street was now legal, and such pragmatism of the Song reign had given birth to a new urban structure.

By the beginning of the twelfth century, the Song capital had forsaken completely the urban structure of the Sui-Tang period and new urban paradigm was born. The constant presence of spatial and temporal restrictions in the consciousness of Chang'an inhabitants was a thing of the past. As the market system expanded and commercial activity flourished, interior walls were torn down or opened up and. Streets and lanes lined with houses of various types whose doors opened onto the streets, which made up an irregular layout unsuitable for walled wards. The eventual abolition of curfews also made these streets active with market and entertainments throughout the day, and in some places, even through the night (Yan 1997, pp. 206-207; Tian 2011, 29-34). Three major commercial streets and four imperial avenues made up the primary structure of a closely-knit road network in Kaifeng (Fig. 8). Not only were these main streets much narrower than their counterparts in Chang'an, but also the psychological and sociological roles that they played were very different as well.

No single street could show us the complexity of Kaifeng and its different countenance, which was ever changing with the time of the day and the season of the year. A representative example of the busy and multi-functional streets in Kaifeng is one of the three major commercial streets, the Panlou Street that cuts through the city in front of the Imperial City. Along this stretch of about two and a half kilometres, there were magnificent gates of many government bureaus, including the Imperial Army (*dianqian si*), because government offices were not confined to the Imperial City (Heng 1999, p. 152). Scattered along the street were also many religious institutions, ranging from Buddhist monasteries, Daoist temples, Zoroastrian temples, to imperial shrines (*Dongjing menghua lu*, 2: 51, 2: 66, 3: 88-89). Fancy restaurants, wineshops, hotels, numerous drugstores, and peddlers of all sorts, also lined the street (Heng 1999, p. 167). A number of entertainment precincts known as *wazi*, welcomed their guests through the night, where all sorts of performances including story telling, recounting history, singing lyrics, dances, comedy, and acrobatic shows were staged (Yan 1997, p. 207; Tian 2011, pp. 97-99).

The unprecedented flourish in the Song capital attracted people from the countryside. Whereas about 890,000 people lived in Kaifeng between 976 and 984, the number of Kaifeng inhabitants increased to about 1.3 million a century later in 1103 (Kuhn 2009, p. 195). The rapid boom of population soon led to a shortage of affordable living and working space in Kaifeng. In consequence, many moved out the crowded city and an immense population had been living and working in the vast areas between the old and the new city walls. Accommodations catering to both officials and commoners sprang up. The prime minister Cai Jing (1047-1126), for instance, has a residence right outside the Liang Gate of the western wall (*Dongjing menghua lu*, 2: 59). We are fortunate to have a vivid visual presentation of the city life and festivities of Song Kaifeng, both its city center and its vicinity, during the early twelfth century as depicted in the famous painting of the eleventh century. Much valuable information can be detracted from the handscroll *Qingming shanghe tu* (Along the River During the Qingming Festival) attributed to a Song painter Zhang Zeduan (1085-1145), a member of the Imperial Painting Academy (Fig. 9 & 11). Thanks to this painting, which illustrates the vigorous and brisk urban life in Kaifeng, reconstructions of some of the Kaifeng buildings are accessible to modern scholars and visitors (Fig. 10 & 12).

From Closed Capital to Open City: Some Concluding Remarks

The centuries that span from the Tang to the Song is not only important in many respects of Chinese social, cultural, and economic history, but also equally critical in the history of Chinese cities. While the Tang city, such as Chang'an, was tightly controlled and extremely disciplined with restricted commercial activity, the Northern Song city of Kaifeng established a new paradigm of open urban space filled with multifunctional streets active around the clock. One question remains as how did these enormous changes take place within the three hundred years that separated the heydays of the two capitals. In my view, there are three major reasons. First, unlike Chang'an which was new motivated and created by new dynastic founders to represent the cosmological order of the new empire and the political legitimacy of the new dynasty, Kaifeng was already an established regional center of culture and economics well before the Song. Certainly, merely as the seat of the prefectural government, Kaifeng was never expected to be a symbol of the entire Chinese realm.

Second, in order to infuse new life into urban areas, rulers of the previous Five Dynasties, in particular Emperor Shizong (r. 954-959) of the Later Zhou dynasty (951-960), encouraged private initiative and investments that would entice people to settle on unoccupied urban areas.⁸ Although the ward system still existed in name, in practice the general situation of land ownership and property demarcation was rather chaotic. Property prices depended more on the commercial attractiveness of a plot of land and business considerations dictated the appearance of Kaifeng's downtown areas. This aspect is also closely related to the particular pragmatism of the Song imperial house, which often put commercial and economic interests above formalism such as geomancy and astrology.⁹

Third, apart from such tangible factors there were also intangible aspects that deserve further consideration. Earlier studies conducted by scholars such as James T. C. Liu (1989) have noticed that there was a clear transformation taking place in the mindset of intellectuals from late Tang to early Song. Now members of the ambitious and privileged class of scholar-

⁸ For detailed discussions, see Shiba 1970, pp. 131-140; Tian 2011, pp. 66-67.

⁹ For a case study of how the Song imperial house dealt with the confiscation of land in Kaifeng during the renovation of the city walls between 1079-1093, see West 1984.

officials were no longer confined to the studio and became more engaged in all sorts of business transactions. Instead of only concentrating on Confucian classics and politic conductions, they began to explore more atypical investment. With the help of front men acting as their agents, they made fortunes by renting out properties, running guesthouses, and founding nation-wide trade.

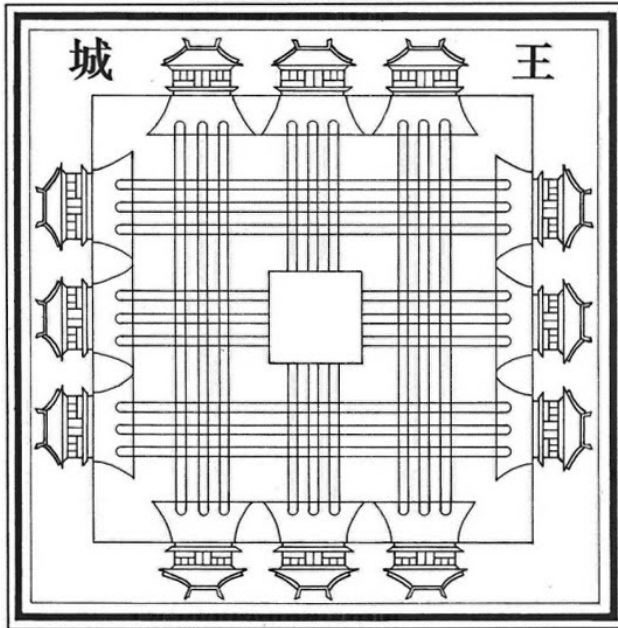


Fig. 1: Reconstruction of the ideal layout of the capital city described in *Kaogong ji*.

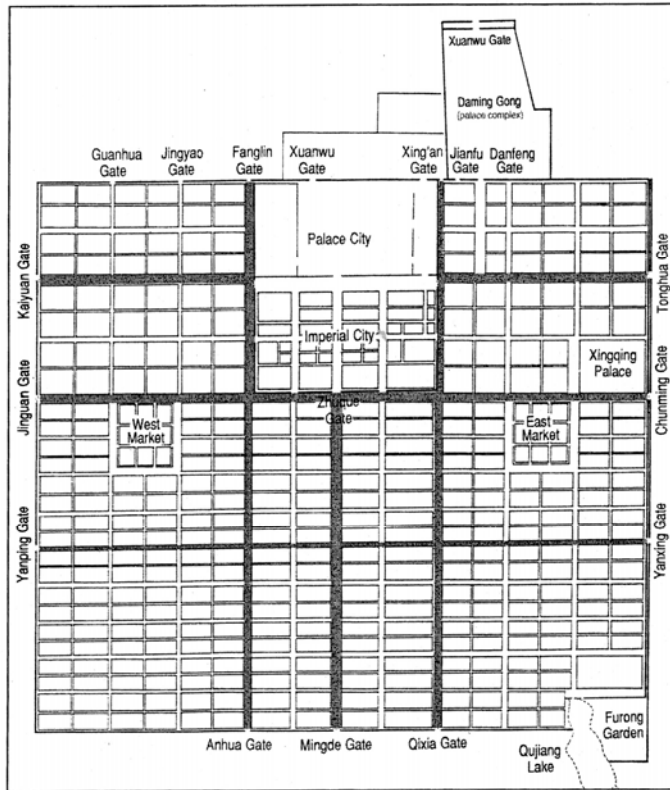


Fig. 2: Schematic Reconstruction of Tang Chang'an. Source: Heng 1999, p. 18, fig. 15.



Fig. 3: Digital reconstruction of the Gate of Bright Virtue (*Mingde men*) and the Avenue of Vermilion Bird (*Zhuque dajie*) in Tang Chang'an. Source: Wang 2006.

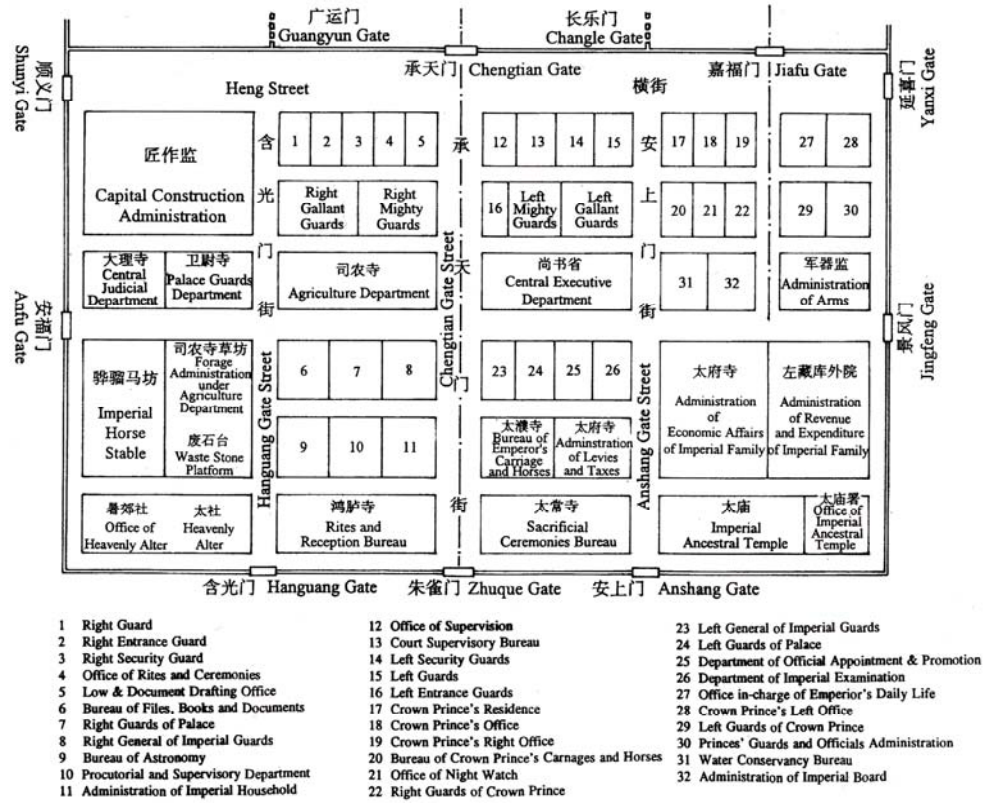


Fig. 4: Administration and military bureaus in Chang'an's Imperial City. Source: Heng 1999, p. 8, fig. 8.

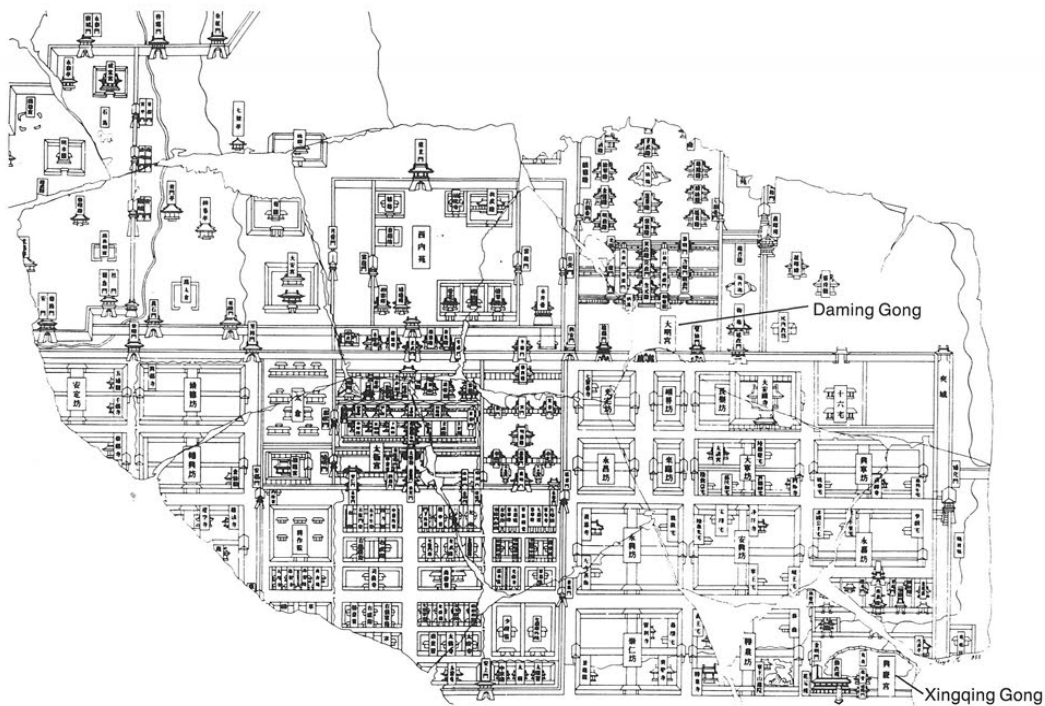


Fig. 5: Detail from the map of Chang'an engraved on a stone stele in 1080.



Fig. 6: Digital reconstruction of wards in Tang Chang'an. Source: Wang 2006.

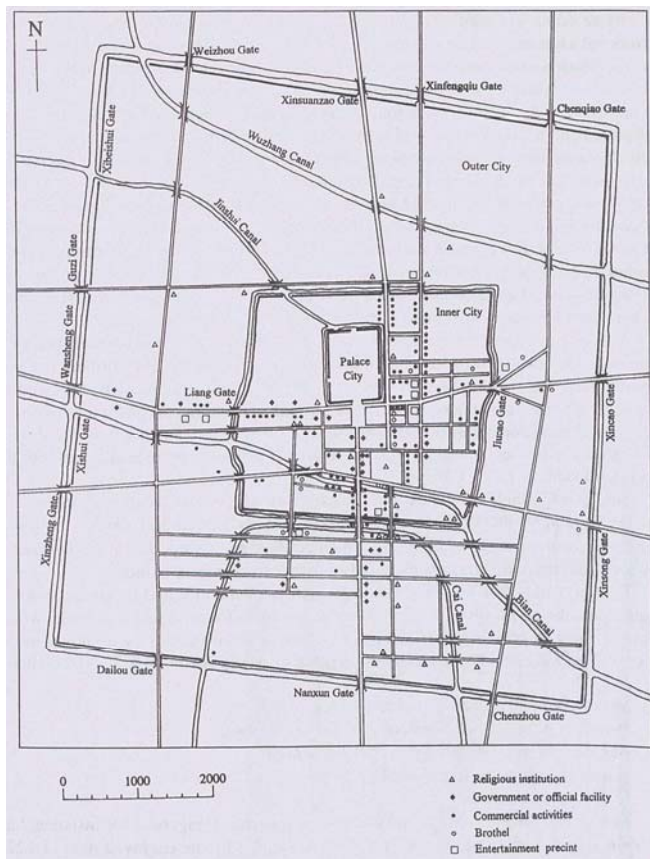


Fig. 7: Schematic Reconstructions of Song Kaifeng. Source: Heng 1999, p. 153, fig. 52.

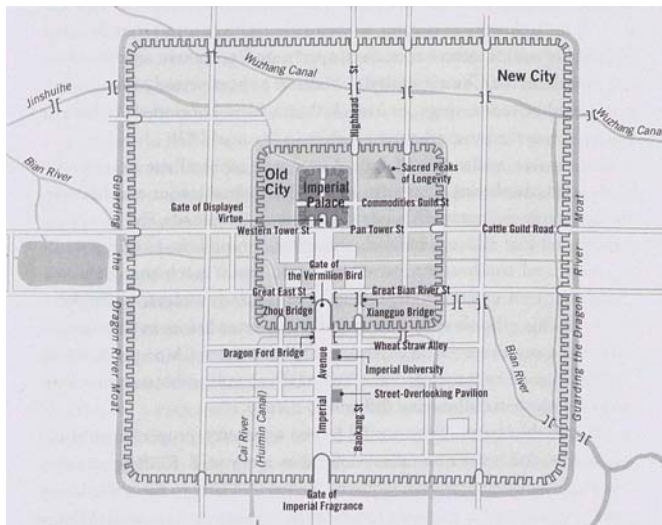


Fig. 8: Schematic Reconstructions of Song Kaifeng. Source: Kuhn 2009, p. 193, map 8.

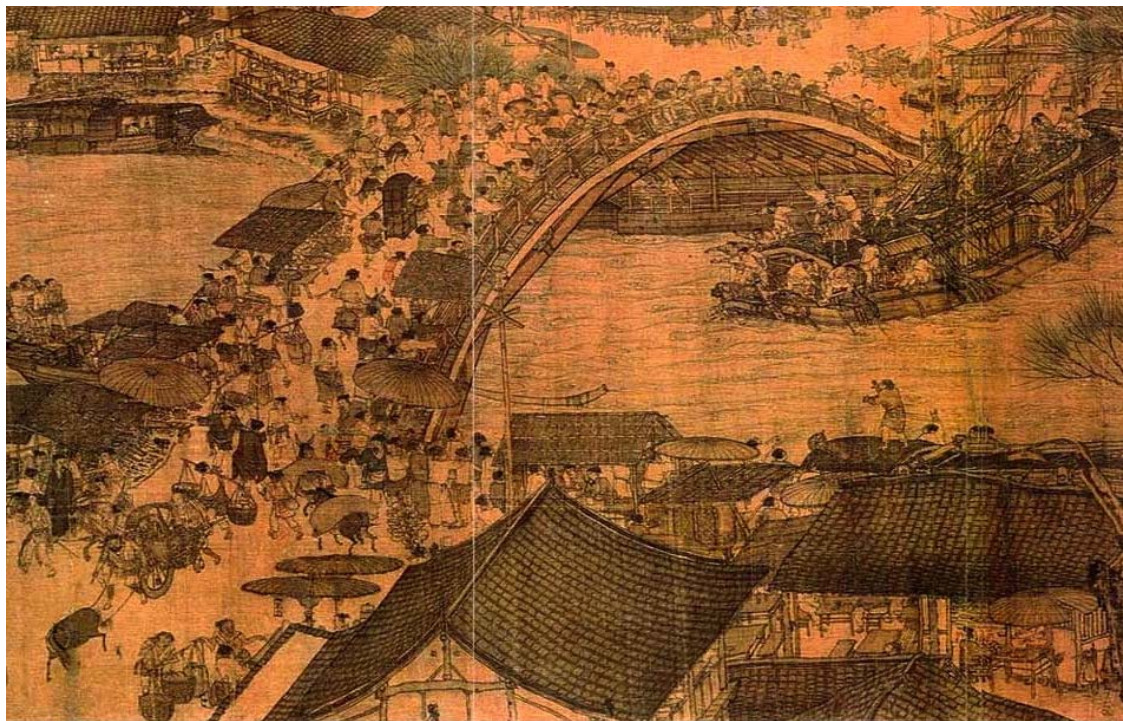


Fig. 9: Detail of the Rainbow Bridge in *Qingming shanghe tu* (Along the River During the Qingming Festival), attributed to Zhang Zeduan (1085-1145). Palace Museum, Beijing.

Fig. 10: Reconstructed Rainbow Bridge in the Song City in Hangzhou.

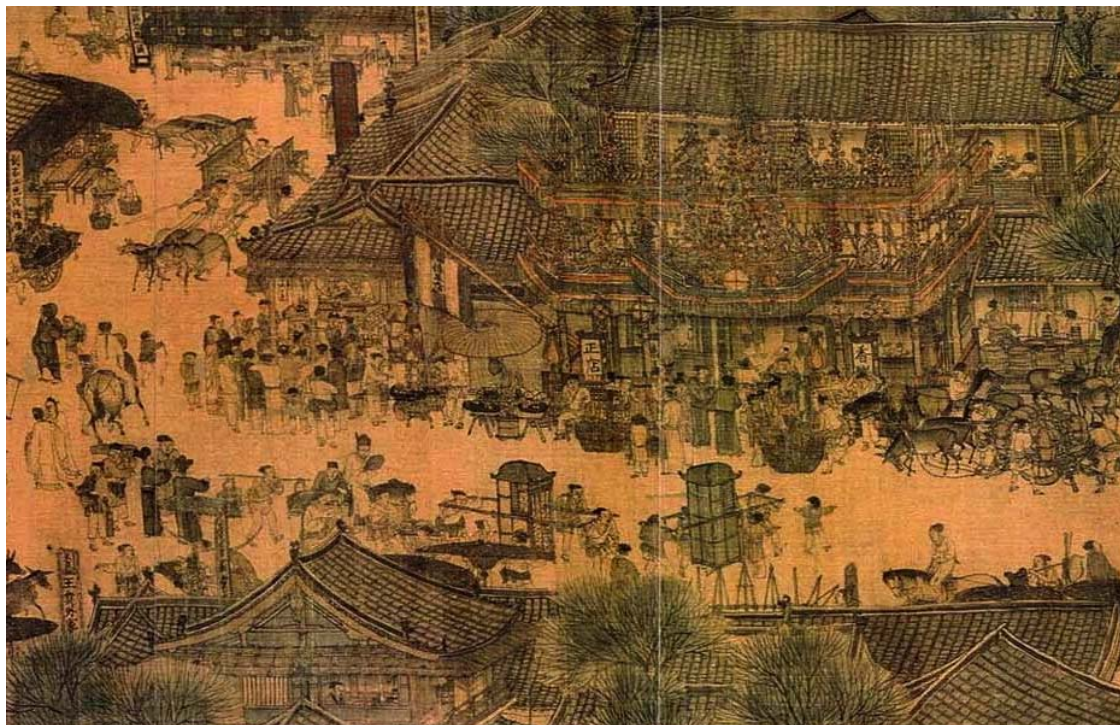


Fig. 11: Detail of a pavilion-wineshop in *Qingming shanghe tu*.



Fig. 12: Reconstructed pavilion-wineshop in the Qingming Shanghe Park in Kaifeng.

Bibliography

- Bai, Juyi. 1960. 'Deng Guanyintai wangcheng' (Climbing the Terrace of Bodhisattva to Watch the City). In *Quan Tangshi* (Complete Tang Poems). Beijing: Zhonghua shuju, p. 5041.
- Bol, Peter K. 1992. *This Culture of Ours: Intellectual Transitions in T'ang and Sung China*. Stanford University Press.
- Chang'an zhi* (Record of Chang'an), by Song Minqiu (1019-1079). In *Yingyin Wenyuange Siku quanshu* (Photoreprinted Completed Library of the Four Treasures in the Hall of Literary Profundity), vol. 587. Taipei: Shangwu yinshuguan, 1985.
- Dongjing menghua lu* (Reminiscences of the Eastern Capital), by Meng Yuanlao (12th cent.). Beijing: Zhongguo shangye chubanshe, 1982.
- Hartwell, Robert. 1982. 'Demographic, Political, and Social Transformation of China, 750-1550'. *Harvard Journal of Asiatic Studies* 42(2), pp. 365-442.
- Heng, Chye Kiang. 1999. *Cities of Aristocrats and Bureaucrats: The Development of Medieval Chinese Cityscapes*. Honolulu: University of Hawai'i Press.
- Johnson, Linda Cooke. 2001. 'New Approaches to Studying Chinese Cities: A Review Article'. *Journal of Asian Studies* 60(2), pp. 483-493.
- Kuhn, Dieter. 2009. *The Age of Confucian Rule: The Song Transformation of China*. Cambridge, MA: The Belknap Press of Harvard University Press.
- Lee, John 1999. 'Recent Studies in English on the Tang-Song Transition: Issues and Trends'. *Guoji Zhongguo xue yanjiu* 2, pp. 365-383.
- Lewis, Mark Edward. 2006. *The Construction of Space in Early China*. New York: State University of New York Press.
- Liu, James T. C. 1989. *China Turning Inward: Intellectual-Political Changes in the Early Twelfth Century*. Cambridge, MA: Harvard University Press.

- Loewe, Michael. 1998. 'The Heritage Left to the Empires'. In Loewe, Michael and Shaughnessy, Edward L. (eds.) *The Cambridge History of Ancient China: From the Origins of Civilization to 221 B.C.* Cambridge: Cambridge University Press, pp. 967-1132.
- Naito, Torajiro. 1947. *Chūgoku kinseishi* (History of Chinese Early Modern History). Tokyo: Kōbundō.
- Qian, Mu. 1958. *Lunyu xinjie* (New Explanations to the Analects of Confucius). Chengdu: Bashu shushe.
- Shang, Minjie. 1991. 'Sui-Tang Chang'an cheng de sheji sixiang yu Sui-Tang zhengzhi' (Design of the Sui-Tang Chang'an and Politics in Sui-Tang China). *Renwen zazhi* 1991(2), pp. 90-94.
- Shiba, Yoshinobu. 1970. *Commerce and Society in Sung China*. Ann Arbor: Center for Chinese Studies of the University of Michigan.
- Sit, Victor F. S. 2010. *Chinese City and Urbanism: Evolution and Development*. New York and London: World Scientific Publishing.
- 1995. *Beijing: The Nature and Planning of a Chinese Capital City*. New York: John Wiley and Sons.
- Song Dongjing kao* (A Study of the Eastern Capital of the Song Dynasty), by Zhou Cheng (18th cent.). Punctuated and collated edition. Beijing: Zhonghua shuju, 1988.
- Steinhardt, Nancy Shatzman. 1986. 'Why Were Chang'an and Beijing so Different?' *Journal of the Society of Architectural Historians* 45(4), pp. 339-357.
- 1999. *Chinese Imperial City Planning*. Honolulu: University of Hawaii Press.
- Tang huiyao* (Institutional History of the Tang), compiled by Wang Pu (922-982). Punctuated and collated edition. Beijing: Zhonghua shuju, 1955.
- Tanglü shuyi* (Tang Code with Commentaries). Congshu jicheng chubian edition. Shanghai: Shangwu yinshuguan, 1939.
- Thilo, Thomas. 1996. *Chang'an: Metropole Ostasiens und Weltstadt des Mittelalters 583-904, Teil 1: Die Stadtanlage* (Chang'an: Metropolis of East Asia and World City of the Middle Age 583-904, part 1: City Plan). Wiesbaden: Harrasowitz.
- Tian, Yinsheng. 2011. *Zouxiang kaifang de chengshi: Songdai Dongjing jieshi yanjiu* (Toward an Open City: A Study of the Street-Market in the Eastern Capital of the Song Dynasty). Beijing: Sanlian shudian.
- Twitchett, Denis. 1968. 'Merchant, Trade and Government in Late T'ang'. *Asia Major* 14(1), pp. 63-95.
- Waley, Arthur D. 1961. *Chinese Poems*. London: Unwin Books.
- Wang, Caiqiang [Heng Chye Kiang]. 2006. *Tang Chang'an de shuma chongjian* (A Digital Reconstruction of Tang Chang'an). Beijing: Zhongguo jianzhu gongye chubanshe.
- West, Stephen. H. 1984. 'The Confiscation of Public Land in the Song Capital'. *Journal of the American Oriental Society* 104(2), pp. 321-325.
- Wheatley, Paul. 1971. *Pivot of Four Quarters*. Edinburgh: Edinburgh University Press.
- Wright, Arthur F. 1965. 'Symbolism and Function: Reflections on Chang'an and Other Great Cities'. *Journal of Asian Studies* 24(4), pp. 667-669.
- Yan, Chongnian. 1997. *Zhongguo dushi shenghuo shi* (A History of Chinese Urban Life). Taipei: Wenjin chubanshe.
- Zhongguo kexueyuan kaogu yanjiusuo Xi'an fajuedui. 1961. 'Tangdai Chang'an cheng kaogu jilue' (Brief Records of the Archaeological Discovery of Chang'an of the Tang Dynasty). *Kaogu* 1961 (11), pp. 595-611.
- Zhu, Jianfei. 2004. *Chinese Spatial Strategies: Imperial Beijing, 1420-1911*. New York and London: Routledge.