

ZHONG ZHOU XIAN – «ЦЕНТРАЛЬНАЯ ОСЬ» ДРЕВНИХ КИТАЙСКИХ СТОЛИЧНЫХ ГОРОДОВ: РАЗВИТИЕ И ТРАНСФОРМАЦИЯ

ЦЗИНЬ ЛИПЭН¹⁾

¹⁾Белорусский государственный университет, пр. Независимости, 4, 220030, г. Минск, Беларусь

«Центральная ось» древних китайских столиц оказала важное влияние на планировку городов и градостроительные традиции. Анализируются археологические материалы и исторические источники по данной проблеме. Отмечается, что предыдущие исследования «центральной оси» в столицах Древнего Китая не использовали последние археологические открытия и не учитывали все внутренние причины возникновения этого феномена. С помощью современных археологических и лингвистических методов исследования, которые сочетаются с новейшими археологическими данными и исторической литературой, предлагается продемонстрировать идею «центральной оси» древних китайских столиц начиная с неолитической культуры Таоси (около 2300 г. до н. э.). Изучаются изменения положения основных зданий столиц в отношении «центральной оси», ее связи с представлениями об идеальной императорской власти и родословии династий, которые основывались на важности презентации символизма, на традициях и политических соображениях. Обосновывается идея о том, что со сменой династий положение дворца на «центральной оси» столицы становилось все более заметным, а родовой храм постепенно переходил на второстепенное положение, что свидетельствовало об усилении имперской власти и непрерывном ослаблении почитания императорского клана.

Ключевые слова: «центральная ось» древнекитайских столиц; история Древнего Китая; китайская археология; древнекитайское градостроительство; археологические раскопки; Институт археологии Китайской академии общественных наук.

ZHONG ZHOU XIAN – «ЦЭНТРАЛЬНАЯ ВОСЬ» СТАРАЖЫТНЫХ КІТАЙСКИХ СТАЛІЧНЫХ ГАРАДОЎ: РАЗВІЦЦЁ І ТРАНСФАРМАЦЫЯ

ЦЗІНЬ ЛІПЭН^{1*}

^{1*}Беларускі дзяржаўны ўніверсітэт, пр. Незалежнасці, 4, 220030, г. Мінск, Беларусь

«Цэнтральная вось» старажытных кітайскіх сталіц аказала важны ўплыў на планіроўку гарадоў і горадабудаўнічыя традыцыі. Аналізуюцца археалагічныя матэрыялы і гістарычныя крыніцы па дадзенай праблеме. Адзначаецца, што папярэднія даследаванні «цэнтральнай восі» ў сталіцах Старажытнага Кітая не выкарыстоўвалі апошнія археалагічныя адкрыцці і не ўлічвалі ўсе ўнутраныя прычыны ўзнікнення гэтага феномена. З дапамогай сучасных археалагічных і лінгвістычных метадаў даследавання, якія спалучаюцца з навейшымі археалагічнымі данымі і гістарычнай літаратурай, прапанована прадэманстраваць ідэю «цэнтральнай восі» старажытных кітайскіх сталіц пачынаючы з перыяду неалітычнай культуры Таосі (каля 2300 г. да н. э.). Даследуюцца змены становішча асноўных будынкаў сталіц у дачыненні да «цэнтральнай восі», яе сувязі з уяўленнямі пра ідэальную імператарскую ўладу і радавод дынастый, якія грунтаваліся

Образец цитирования:

Цзинь Липэн. Zhong Zhou Xian – «центральная ось» древних китайских столичных городов: развитие и трансформация. *Журнал Белорусского государственного университета. История*. 2023;3:41–56 (на англ.). <https://doi.org/10.33581/2520-6338-2023-3-41-56>
EDN: RXTPYG

For citation:

Jin Lipeng. Zhong Zhou Xian as Central Axis of the ancient Chinese capital cities: development and transformations. *Journal of the Belarusian State University. History*. 2023;3:41–56. <https://doi.org/10.33581/2520-6338-2023-3-41-56>
EDN: RXTPYG

Автор:

Цзинь Липэн – аспирант кафедры истории древнего мира и средних веков исторического факультета. Научный руководитель – кандидат исторических наук, доцент А. А. Прохоров.

Author:

Jin Lipeng, postgraduate student of the department of the ancient and medieval history, faculty of history.
18600194666@163.com

на важнасці прэзентацыі сімвалізму, на традыцыях і палітычных меркаваннях. Абгрунтоўваецца ідэя аб тым, што са зменаў дынастый становішча палаца на «цэнтральнай восі» сталіцы становілася ўсё больш прыкметным, а радавы храм паступова пераходзіў на другараднае становішча, што сведчыла аб узмацненні імперскай улады і бесперапынным паслабленні ўшанавання радавода імператарскага клана.

Ключавыя словы: «цэнтральная вось» старажытнакітайскіх сталіц; гісторыя Старажытнага Кітая; кітайская археалогія; старажытнакітайскае горадабудаўніцтва; археалагічныя раскопкі; Інстытут археалогіі Кітайскай акадэміі грамадскіх навук.

ZHONG ZHOU XIAN AS CENTRAL AXIS OF THE ANCIENT CHINESE CAPITAL CITIES: DEVELOPMENT AND TRANSFORMATIONS

JIN LIPENG^a

^aBelarusian State University, 4 Niezaliezhnasci Avenue, Minsk 220030, Belarus

The concept of Central Axis for ancient Chinese capitals had an important impact on the planning and urban function of the ancient Chinese capitals. This paper combines archaeological materials and historical documents to gradually analyse: previous studies on the concept of Central Axis of the ancient capital of China have not used the latest archaeological discoveries and the internal causes of the generation of the Central Axis. The article demonstrates the Central Axis of the ancient Chinese capital city as early as neolithic Taosi culture period from ca. 2300 BC and further explores changing of the main buildings at the Central Axis position through method of archaeology, philology, combined with the latest archaeological data and historical literature, shows its relationship with state and dynastic policy. The design of the Central Axis was not out of formalism, but based on the symbolic significance, customs, and political considerations. The author argues that with the replacement of dynasties, the position of the palace on the axis of the capital became more and more prominent, while the ancestral temple was gradually located in the secondary position, indicating the strengthening of imperial power and the continuous weakening of emperor's family worship.

Keywords: Central Axis of ancient Chinese capital cities; history of Ancient China; Chinese archaeology; ancient Chinese urban planning; archaeology excavation of the Archaeology Institute of the Chinese Academy of Social Science.

The layout of the Central Axis is a remarkable feature of the ancient Chinese capital city. With the continuous improvement of the capital system of the past dynasties, the layout characteristics of the Central Axis became more and more prominent, and even became the core of the ancient capital planning. The axisymmetric capital city and architectural layout not only represents the traditional aesthetic and architectural planning and technical issues of East Asian countries and regions including China, but also represents the materialised expression of national political ideas in Chinese traditional culture.

Central Axis layout of the ancient Chinese capitals within the Chinese academic circles was very discussed question. A researcher from Shaanxi Provincial Institute of Archaeology Li Zizhi believes that the Central Axis appeared in the Xia (about 2070 BC – about 1600 BC), Shang (about 1600 BC – about 1046 BC) and Zhou (1046–771 BC) dynasties, but a relatively complete idea of the Central Axis planning appeared officially only in the Luoyang City period of the Han dynasty (25–220 AD) and Wei dynasty (386–534 AD) [1]. Zhou Runshan, a professor from Zhengzhou University, believes that the layout of the Central Axis is a major feature in the development and evolution of ancient Chinese capitals. With the continuous improvement of the capital city system of all dynasties, the layout characteristics of the Central Axis became more and

more obvious, and even became an important standard for the planning of the ancient capital city of China [2]. A professor from Taizhou University Chen Aiping deems that the capital city is the product of national politics, which appears with the emergence of the state. When the state emerged and the whole society fell into the royal power-centered operating system, the capital city, as the center of royal rule, naturally became the symbol of royal rule [3]. A famous professor from Tsinghua University Wang Guixiang believes that the ancient Chinese cities and architecture have a very prominent feature, its urban layout and the organisation of the buildings are often gradually developed around a strict Central Axis [4]. A researcher from Beijing Capital Museum Chen Jing believes: «The center of China» reflects the political thought, which historical and cultural concept was consistent during no matter what dynasty by the Han nationality, Nüzhen [Nuchen] nationality, Mongolian, Manchu in the Chinese nation management of ancient China, which was embodied in the continuation of «capital axis», was passed down from generation to generation as hereditary of supreme «national identity» in multi-national united country regardless of changing of rulers from different families in ancient China» [5]. Known professor Liu Qingzhu, the academician from the Chinese Academy of Social

Science deems that the two axis existed in the capital of the Xia and Shang period. The double axis planning should be related to the layout of the system «temple on the left and palace on the right» in the palace-city at that time, which was the reflection of the «dual politics» of imperial policy and dynastic politics at that time [6]. He believes that the capital of Qin Country (221–207 BC) – Xianyang – was built in the Warring States period, and that Qin Country still took it as the capital after it unified the six states and established a unified and centralised empire. In terms of the capital shape system, it belongs to the «transitional» capital from the «kingdom era» to the «imperial era». As for the current archaeological discovery of Xianyang City site, it is impossible to investigate the capital axis of Xianyang City [7].

In Chinese architect's tradition Central Axis has a special definition «Zhong Zhou Xian» that means 'an axis of the main buildings in a certain order, mostly northsouth trending'. The first mention about Central Axis in history was in the year 239 BC in the book named «Lu Shi Chun Qiu» («Lu's spring and autumn annals»).

But we could see the idea about Central Axis in Chinese architectural tradition much earlier. The last received archaeological evidences show:

- because in the traditional Chinese concept of ritual system, the capital city will often be chose the geographical location in the center of China. The earliest unearthed documents of the Warring States period (475–221 BC) was excavated by grave robbers in 2008 from Hubei Province about «seek center» (*Xun Zhao Zhong Xin*) was the bamboo slip «Bao Xun», which described selection and planning of the capital city by Emperor Zhou (?–1046 BC). Among them, it is mentioned that legendary Dayu (emperor of Xia) asked the sixth ancestor of Shang Tang (emperor of Shang dynasty) to go to «seek the middle» in the land of Song Mountain and Luo River for building of dwelling of emperor [8]. We can watch legendary story with important mythological sense that with the basin behind the mountain surface water. It presents for us new evidence in the problem of Central Axis idea foundation.

In recent years, a large number of settlement sites and some important city sites from Shang dynasty has been found in eastern Henan Province and western Shandong Province. These settlements can correspond to the «seek the center» of monarch Shun (2277–2178 BC), legendary for western scholars as the Xia dynasty as well, recorded in «Bao Xun» [9].

The «Bao Xun» also states that monarch Dayu founded a capital of the Xia dynasty, which was located in the «Chasing center» («seeking center») near by the «Luo River» [10]. It is called now the «Great Song Mountain» area (including Luoyang City, Zhengzhou City) [9];

- in monumental history of China «Shiji» («Historical records») Sima Qian (145–90 BC) further recorded: «Emperor Cheng (1075–1020 BC) was in Feng City, and Shao Gong erected Luoyi (ancient Luoyang. – J. L.)». He

mentioned: «This is the center of the world, people get here are the same from everywhere» [11, p. 183];

- however, from the perspective of Sima Qian's account, which was written in the book «Shiji», the front hall project of E Pang Palace in Qin dynasty seems to have planned a northsouth axis of the city;

- the clear literature record of the Central Axis of Chinese cities is the «Zhou Li Kaogong Ji» («Records of artificial of Zhou Li») written more than 2000 years ago. «Zhou Li» («Rites of Zhou») was an official book of the Qi State in the later years of the Spring and Autumn period (770 BC). The section of «Zhou Li Kaogong Ji» comprehensively records the urban planning thought of the Zhou people and the urban design mode of the capital of the Western Zhou dynasty. The core idea of «Zhou Li Kaogong Ji» is reflected in the graph is the ideal plan of Zhou City (area of modern Loyang City). Each side of the four walls had nine Li long and three gates. There were nine straight streets and nine horizontal streets in the city, and each street consisted of three parallel roads. The street had a width of nine trails (about 18 m wide), and three wagons can walk side by side. In the center of the city was the palace city, and on both sides were the ancestral temple and the altar of the country. The court was in front and the market was behind [12, p. 15]. They can see that this urban construction mode has formed a strict Central Axis with the palace city in the center and the symmetrical spatial layout of other important buildings.

Mythological center of the country (legendary awareness appeared even before the Xia dynasty) was Luoyang as the center of the Universe, and archaeological data shows that the Central Axis layout in different degrees appeared in some capitals in the Xia and Shang dynasties before the Western Zhou dynasty. It is believed, that the pre-Qin capital had not yet formed a strict Central Axis layout, mainly based on the conclusions of some archaeological materials. However, with the deepening of the excavation and research of Taosi City site, Yanshi site (an archaeological site in modern Yanshi County) and Erlitou site, this conclusion should be re-examined.

First of all, let's pick up the archaeological evidences from the most ancient times.

The Central Axis of Taosi City site. The Taosi City site was discovered in 2003–2004. It is located at the west foot of the east bank of Fen River in Xiangfen County, Shanxi Province, between Taosi Village, Zhongliang Village, Song Village and Dongpo Gou Village. The city site is divided into early and middle periods, which belong to the early and middle pottery Taosi culture respectively; the middle city site covers 10 000 m², which is the largest city site in the Longshan period (2500–2000 BC) of China.

The site selection of the capital of the pottery temple follows the standard of the shadow of the summer solstice, and then determines the site selection according to the need of the actual political center to move into the Linfen region. Since then, the concept of «emperor

in the center» has been used and institutionalised for the site selection and architectural planning of the capital. «Zhou Li Kaogong Ji» said that one of the duties of the great minister of the court (Situ) is «...to measure the depth of the earth, is the sun to find the earth. The south of the short scenery, more heat; the north of the long scenery, the east scenery, the wind: the sun two scenes, more cold. The harmony of heaven and earth, the change of the net time, the wind and rain, the harmony of Yin and Yang, then, is the construction of the kingdom» [13]. The construction of the capital here must be determined by the method of shadow measurement to achieve the idea «emperor in the center»: because the ancient Chinese habitants believed, that a center place was the only channel to communicate with heaven and earth, the capital planning universe of the «emperor in the center» had been institutionalised to serve the traditional religious thought, which has a far-reaching influence. The ancients believed that the North Star could be dialectically oriented and «erected the pole». The North Star could determine the «pole line» of the capital. The «pole line» and the central axis of the ancient Chinese capital were basically overlapped.

There are indeed two lines in the capital of the Taosi site, one of which is the Zhaowang Channel and the Zhongliang Channel outside the city road, which divides the middle of the Taosi site into the north (top) and the south (bottom) (see fig. 1, insert). The north (top) was mainly occupied by the palace-city, the treasury storage area, the royal cemetery and the viewing ceremony building area. The south (bottom) was occupied by handicraft areas and ordinary residential areas. Obviously, this line does have the function of structural division. The southwest orientation of the palace determines, that the «ancestors», characterised by the first emperor's royal cemetery, was «on the left of the palace, and the social altar of the sacrificial place was on the right of the palace, expressing the original axis system according the idea of «Zuo Zu You She» on the left from palace is ancestral temple, and on the right is state temple, which was represented in «Zhou Li Kaogong Ji». It seems that we see the earliest example of the system «Zuo Zu You She» («on the left of palace is ancestral temple, and on the right is state temple»), in an ancient Chinese city, which expresses the planning thinking of the Central Axis centered on the palace-city, which is consistent with the planning thought of the «Zhou Li Kaogong Ji». They can see that the planning thought of «Zhou Li Kaogong Ji» borrowed from the planning and design of the Taosi site.

The Central Axis of the Erlitou site. Ancient «Erlitou» settlement was built about 3800~3500 years ago. The archaeological site located in modern Yanshi County, Henan Province. Its distribution area is at the north of modern Erlitou Village. In the mainstream academic view in China, Erlitou culture belongs to the culture of the late Xia dynasty and early Shang dynasty. Erlitou site

can be divided into palace area, sacrificial and burial area, temple area, official handicraft workshop area, aristocratic residential area, people's residential area, etc. The temple area is located in the southeast of the site, surrounded by the ruins of the palace city. Archaeological findings in the ruins of the late Erlitou culture, divided into western and eastern building sites [15–17].

In the west, there is one building site, and its south is the South Palace Gate site. There are courtyard walls around the palace building site, which was the main palace. The whole courtyard was rammed. The rammed foundation of the palace building (see fig. 2, insert) was located in the northern center of the courtyard. In the south of the hall was the courtyard, in the south of the courtyard – the gate. The south gate was lined in front and back. The two partitions make the south gate construction as «one gate and three ways». In the past, the «one gate and three ways» (one gate with three entrance) were only found in late ancient capitals, such as Chang'an of the Western Han dynasty (202 BC – 8 AD), Luoyang of the Eastern Han (25–190 AD) and Wei (386–398 AD) dynasties, Luoyang of the Sui (581–618 AD) and Tang (618–907 AD) dynasties, Bianliang of the Northern Song dynasty (960–1127 AD), Dadu of the Yuan dynasty (1271–1368 AD), and Beijing of the Ming (1368–1644 AD) and Qing (1636–1912 AD) dynasties.

The ancestral temple of a ruling building site (see fig. 3, insert) is in 150 m southwest from the foundation site of palace building site at a rectangular rammed earth foundation. The ancestral temple of a ruling house of Erlitou settlement included courtyards, doorways, cloisters, and halls. The main building was located in the center in the north of the courtyard. It was rectangular, about 33 m from east to west and 12 m from north to south. According to the floor of the hall, it can be inferred that the hall had three wide rooms, with cloisters, there were corridors in the east, west and south. Between the hall and the south gate was the courtyard, 45 m from east to west and 56.5 m from north to south. The main gate of the courtyard (south gate) of the ancestral temple of a ruling house was a very important relic.

The site of the ancestral temple of a ruling house was juxtaposed with the site of the palace, which may be the capital Central Axis in the era of archaeological discovery. The main building hall of the palace site was opposite to the south gate. The main building of the ancestral temple of a ruling house was opposite to the south gate of the courtyard, and the opposite gate had not been found. However, from the overall layout of the palace, there was possibly a palace gate in the east of the south palace wall. Erlitou palace should have two eastwest parallel to northsouth axis, that is, the «Double Axis» of the palace.

The discovery of Erlitou site and the Central Axis of Erlitou palace confirms the information of the unearthed bamboo slips of the Warring States period on the principle of choosing a capital, that is, looking for

the center. At the same time, it also confirms the historical records of the city location and the layout of the Central Axis. The Central Axis planning of the Erlitou palace is the beginning of the political-led planning of the ancient Chinese capital. The palace building and ancestor temple architecture of Erlitou site are planned side by side, representing the equal status of worship of imperial power and emperor's family and ancestors.

The Central Axis of the Yanshi City site of Shang dynasty. Yanshi City site time dates to 1600 BC, in the east of modern Luoyang City (Henan Province). There are Mang Mountains in the north and the Luo River is in the south. Erlitou site is in 6 km southwest of it.

Yanshi City site was a capital in the early Shang dynasty (ca. 1600–1046 BC), with the «big and small cities» in it. But the time of existence between «small city» and «big city» was different, the «small city» was earlier than the «big city», and the «big city» was expanded on the basis of the «small city» (see fig. 4, insert). In the stage of only the town, the site was rectangular, and there was a gate in the middle of the wall. The palace area was located in the south section of the northsouth Central Axis of the city, and its outer ring has walls and forms a square «palace-city». The southwest corner of the city was military camp Fuku (or Wuku), and there were copper casting workshops in the northeast of the city. They see that the Yanshi City in its initial construction stage had revealed the characteristics of the Central Axis layout. When it was expanded into the «big city», part of the city wall was extended to the north, and the southeast corner was folded inside to avoid the natural lake on the outside, resulting in the site plane of a so-called «kitchen knife». The palace area also deviated from the middle of the city and fell in the southwest of the city. Five gates of this period were found, two in the east and west, one in pairs; one in the north and the palace area in the south. There were great roads connected between the city gates. Water supply and drainage channels were built with stones run through the palace area under the earth of the east and west gates. The size of the palace area also broke through the original wall and expanded outward. There were five palace base sites, one in the middle, the rest correspond, and there was a road in the middle to the south of the city. In the southwest and northeast of the city, there was Fuku (or Wuku) to defend the palace area. To the north of the city were handicraft workshops and living quarters for the general inhabitants [18; 19].

Yanshi City site shape layout, was a central axis-symmetric layout. That is to take from the north gate through the palace area to the south of the city as the Central Axis, the east and west gates, palace buildings and other left and right symmetrical distribution. Yanshi City site was so neat central axis layout, was undoubtedly carefully planned in advance.

For the first time, the site of Yanshi City reflected the principle of Central Axis planning on the basis of the fo-

undation of strictly planned «big city» and «small city», and reflected that the Shang dynasty expressed the strict level of political management on the basis of the definite planning of capital.

Archaeological data shows the emergence of the Central Axis of the capitals of Xia, Shang and Zhou dynasties, either on the whole, or in part, or on the single buildings, indicating that this layout tradition has been formed in different degrees or in different ranges in the capital planning at that time.

The Central Axis of the Western Zhou architectural principle. The archaeological work of the Western Zhou dynasty (1046–771 BC) was the most important in Zhou Yuan site and Fenghao site, the political centers at that time. Zhou Yuan site is located in the west of Guanzhong Plain, Shanxi Province. Qi Mountain is in the north, Wei River is in the south, modern Wugong County is in the east, modern Fengxiang County and Baoji City are in the west.

Scholars found a large building on the rammed earth platform in Zhou Yuan and Fenghao sites of Western Zhou period such as buildings in modern township Feng Chu and modern county Fufeng. Other group of large rammed buildings platform with a separating wall between the two groups of buildings in Feng Chu [20]. Rammed foundations of main buildings in modern county Fengxiang are located from north to south, 10 degrees west. The whole building is composed of gate, entrance hall, front hall, back room, east and west wing rooms and cloister, the middle from south to north for the gate, entrance hall, front hall, back room, both sides are symmetrical east and west wing rooms, east and west wing rooms have 8 rooms. The front eaves and walls have cloisters, and screens in front of the door (see fig. 5, insert).

The architectural site of Feng Chu main buildings had formed a relatively regular northsouth courtyard layout, with a strict symmetrical layout between east and west formed in the eastwest courtyards, corridors and east-west concierge. The northsouth Central Axis layout is formed by the south wall, the front gate and the corridor between the two houses. Compared with other capital sites, the site is smaller in scale, but the planning and design are very meticulous, and the Central Axis is symmetrical and orderly, which has a profound impact on the later dynasties, reflecting the human-oriented design concept of ancient Chinese architectural planning.

The Central Axis of the Chang'an City site of the Western Han dynasty. The site of Chang'an City of the Western Han dynasty is located in the northwest suburb of modern Xi'an, Shaanxi Province. It is a fact that the capital of the Western Han dynasty (202 BC – 8 AD) had formed a traditional Central Axis layout. After the long-term archaeological exploration and excavation of Han Chang'an City, its shape and layout had been generally investigated. The city site is nearly square, each wall has 3 gates, a total of 12 gates. Among them,

4 city gates are opposite to the palace gate, and the other 8 city gates are connected each to a large street in the city. The palace area is concentrated in the central and southern parts of the city, and the north has residential workshops, markets and handicraft workshops. In the western suburbs of the city, the Jianzhang Palace was built in the first year of Emperor Wu of the Han dynasty (104 BC). The ritual building area and Wangmang Nine temples were in the south of the city [27, p. 27]. From the overall layout of Chang'an City of the Han dynasty, the north-south prospect from Heng Gate to Xi'an Gate is its Central Axis, and Weiyang Palace, as the palace-city, was located on this Central Axis. The Central Axis runs through the North Palace Gate and the South Palace Gate of Weiyang Palace. Out of the North Palace Gate connected to Heng Gate Street, the North Palace, the Gui Palace, and the markets were nearby the Heng Gate Street. Out of the Nangong Gate to the Xi'an Gate, out of the Xi'an Gate, according to the system «on the left of palace is ancestral temple, and on the right is state temple» (see fig. 6, insert). Some researchers believe that An Gate Street is located in the middle of Chang'an City, believing that the Central Axis of Chang'an City should be An Gate Street. Some scholars have pointed out that this understanding is inappropriate [22, p. 46]. The design of the Central Axis was based on the palace, more specifically, to the main hall as the main building in the palace, as the basis, to form the Central Axis of the palace, and then extended as the Central Axis of the capital. The palace of Chang'an of the Han dynasty was Weiyang Palace. In this way, Weiyang Palace was taken as the base of the Chang'an City in Han dynasty, thus forming the north-south prospect from Heng Gate to Xi'an Gate as the Central Axis.

The Central Axis of Chang'an City in Han dynasty was not only deviates from the central position of the city, but also slightly deviates from the front hall of the main hall of Weiyang Palace, which was the basis point of planning, and passed from the east side of the front hall. These phenomena show that, in addition to the reasons for the restriction to move, they also reflect that the capital planning at that time was not so deliberately pursued in these aspects. In fact, the phenomenon that the Central Axis of the capital deviated from the central position continued until the Northern Wei period. Luoyang was the capital from the Eastern Han dynasty (25–220 AD) through Cao Wei (220–266 AD) and Western Jin (266–316 AD) to the Northern Wei (386–534 AD).

The capital axis of Chang'an in the Western Han dynasty was not perfect, because it developed on the basis of the capital of the Qin dynasty. The Weiyang Palace area consisted from some different palaces. The North Palace of Weiyang Palace was not arranged on the Central Axis, but on the left side of the Central Axis. The ancestral temples in the Western Han dynasty were relatively scattered, which did not conform to the planning

principles of the Central Axis of the capital in «Zhou Li Kaogong Ji». Although the palace of Chang'an of the Han dynasty was not in the center of the city, it was located at the highest place of the city, also in the center of the palace-city. The temples were located outside the city, which clearly shows the strengthening of imperial power and the weakening of emperor's family and ancestors worship.

The Central Axis of the Luoyang City of the Han and Wei dynasties. The Han-Wei Luoyang City site is 15 km east of modern Luoyang City, the Luo River in the south and Mang Mountains in the north. Since the Western Zhou dynasty, four dynasties have built their capital here. The Han-Wei Luoyang City used to be the capital of Eastern Zhou (770–256 BC), Eastern Han (25–220 AD), Cao Wei (220–266 AD), Western Jin (266–316 AD) and Northern Wei (386–534 AD) dynasties. The structure of Luoyang in the Eastern Han dynasty was a small rectangular area from north to south. Except for the southern city wall, which was destroyed due to the northward migration of Luo River, the other three city walls have been basically complete. According to documents, there were 12 gates in Luoyang in the Eastern Han dynasty and Wei and Jin dynasties. After exploration, there were 10 gates on the existing three walls, three east walls, two north walls and five west walls. The second gate of the west wall was the Han Yong Gate, and the third and fifth gates were the Xiyang Gate and the Chengming Gate opened by the Northern Wei dynasty respectively. Every main streets of the city had its own gates. The main palaces of Luoyang in the Eastern Han dynasty were the South Palace and the North Palace. However, they were repeatedly disturbed by the subsequent capital buildings of Cao Wei, Western Jin and Northern Wei, and their structure was not completely clear. According to the existing archaeological data and literature records, scholars are slightly different, but the general orientation of the South and North palaces can be basically determined. The South Palace is located in the southeast part of the city, the north and west of the north of the city, and the two palaces are not directly misaligned, which are connected by restoration [23–27]. The gate to the east of the south wall was called Zhengyang Gate and is considered to be the main gate. Pingcheng Gate had the street through the South Palace, and then cross the road into the North Palace. Accordingly, Ping Gate Street was the Central Axis of Luoyang City in the Eastern Han dynasty. Out of the Pingcheng Gate, ritual architectures of Ming Tang temple, Pi Yong temple and Taixue high school were in the left, and Lingtai Palace was in the right (see fig. 7, insert). It is not difficult to see that the Central Axis of Luoyang City in the Eastern Han dynasty was also not in the middle position within the city. Moreover, Pingcheng Gate Street through the South Palace towards the North Palace, this route is not in a straight line.

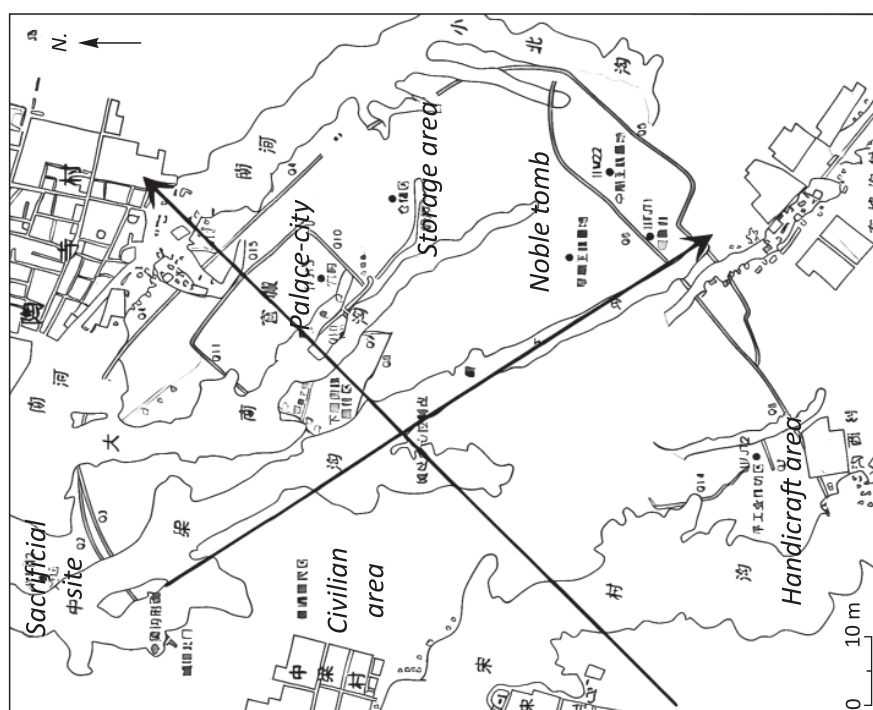


Fig. 1. Floor plan of the Taosi site (about 2300 BC) (according He Nu's scheme, researcher of the Institute of Archaeology, Chinese Academy of Social Sciences [14])

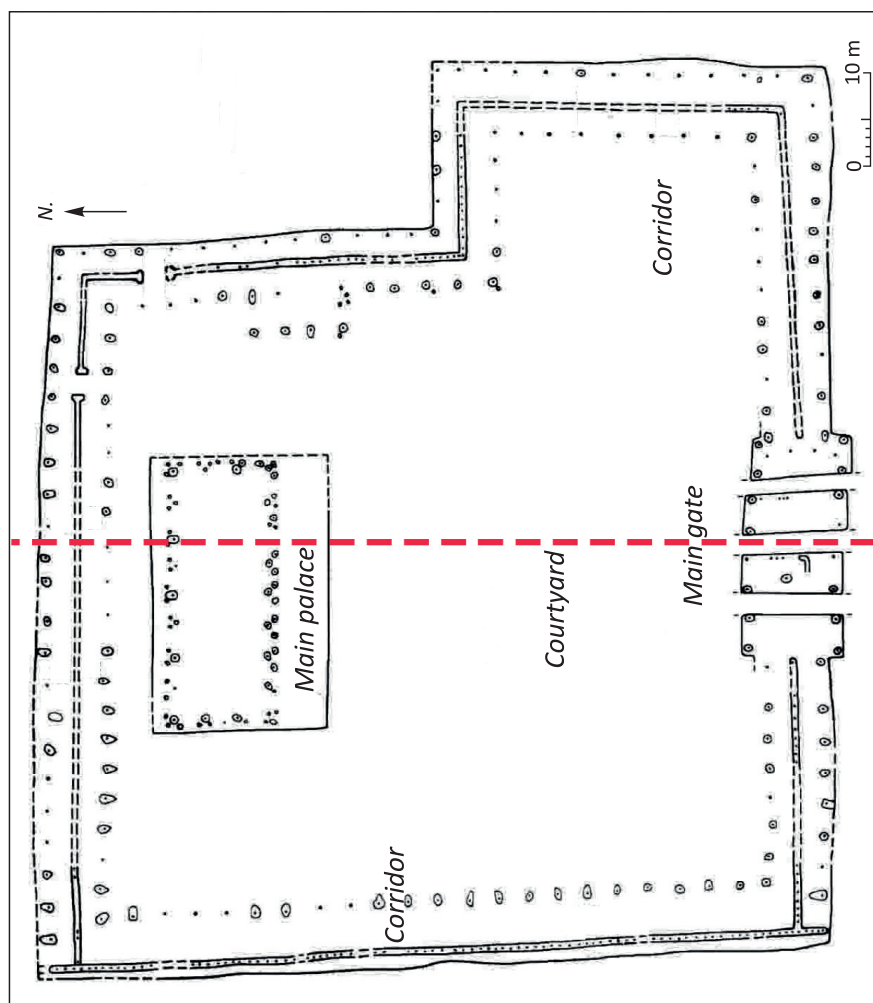


Fig. 2. Floor plan of the palace site of Erlitou City

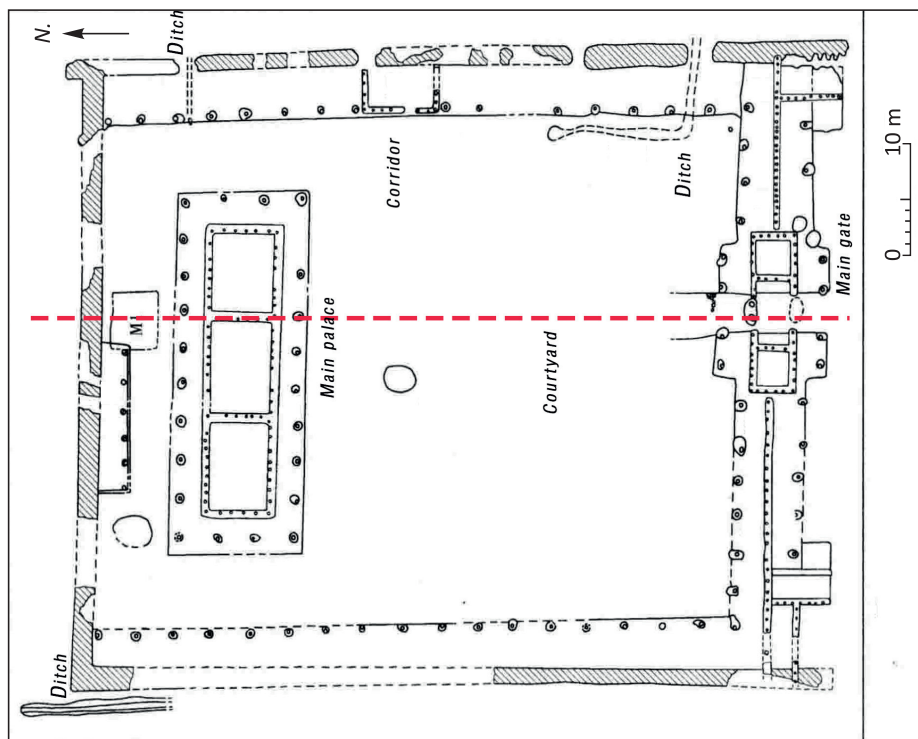


Fig. 3. Plan of ancestral temple of a ruling house of Erlitou site

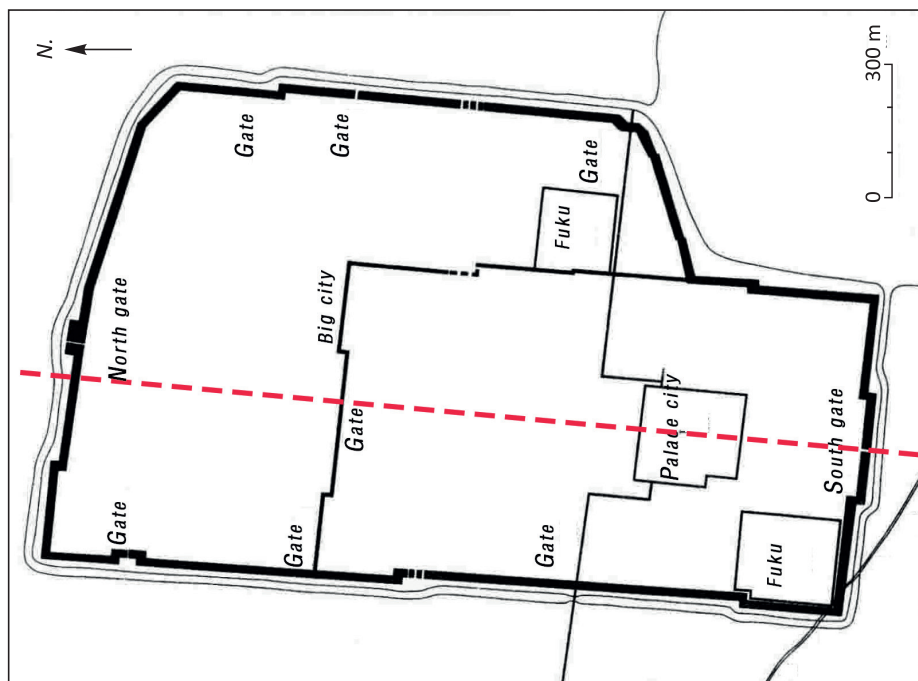


Fig. 4. Floor plan of Yanshi City site

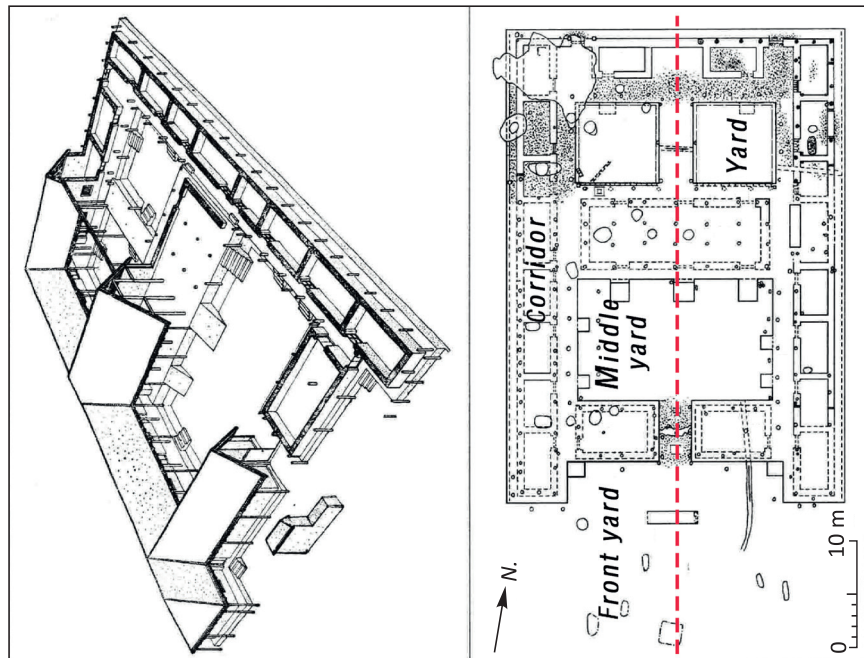


Fig. 5. Base site plan and restoration diagram of large rammed buildings platform in Feng Chu

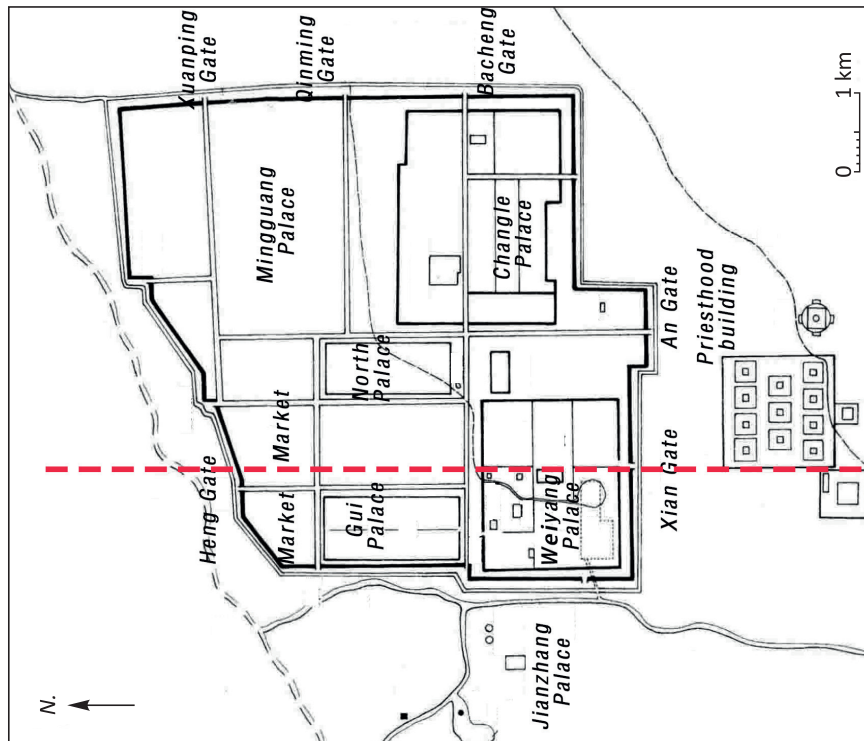


Fig. 6. Plan of the Chang'an City sites of the Western Han dynasty

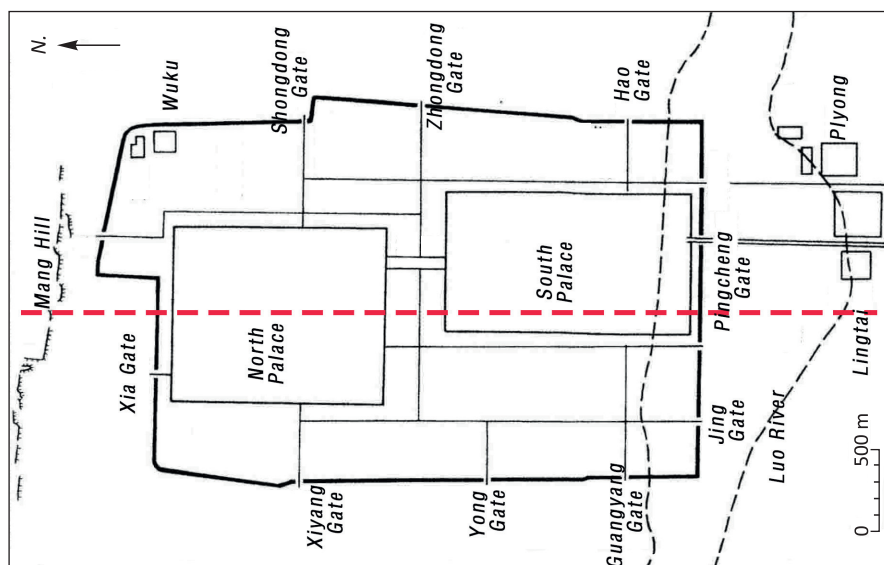


Fig. 7. Floor plan of Luoyang City site in the Eastern Han dynasty

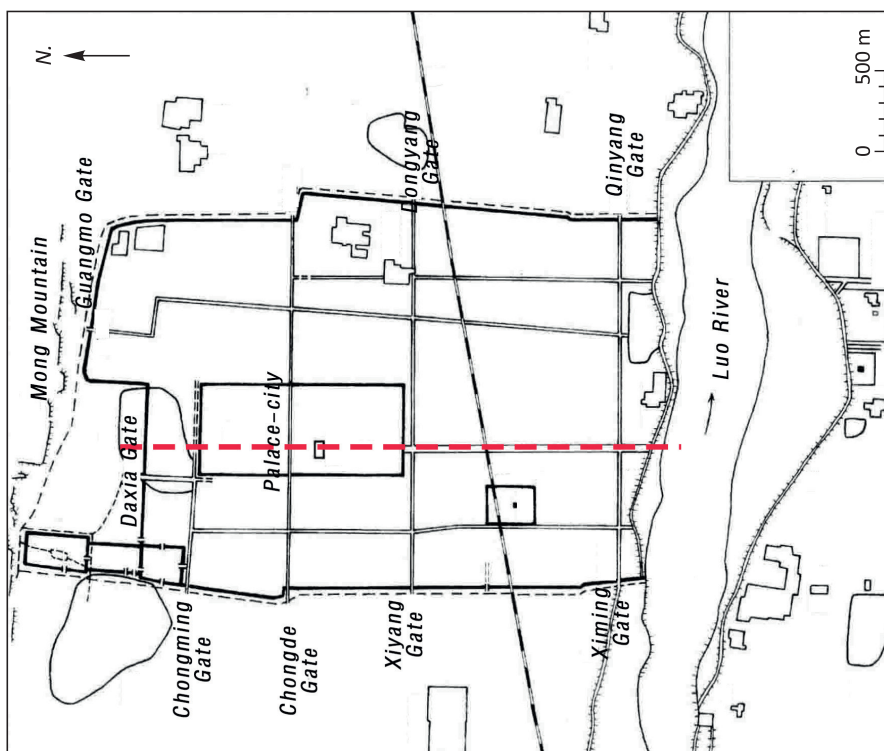


Fig. 8. Floor plan of the Luoyang City site of the Northern Wei dynasty

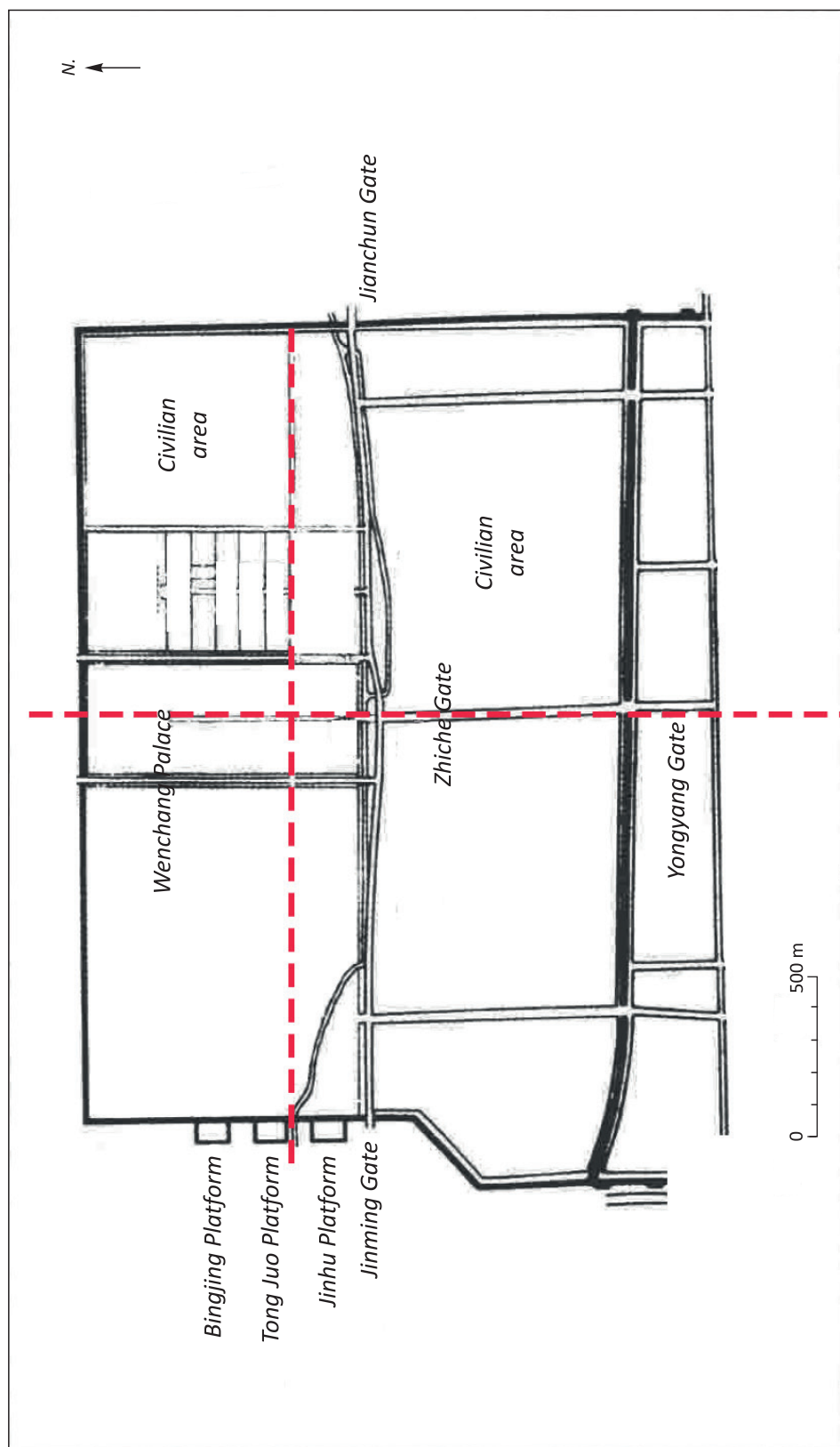
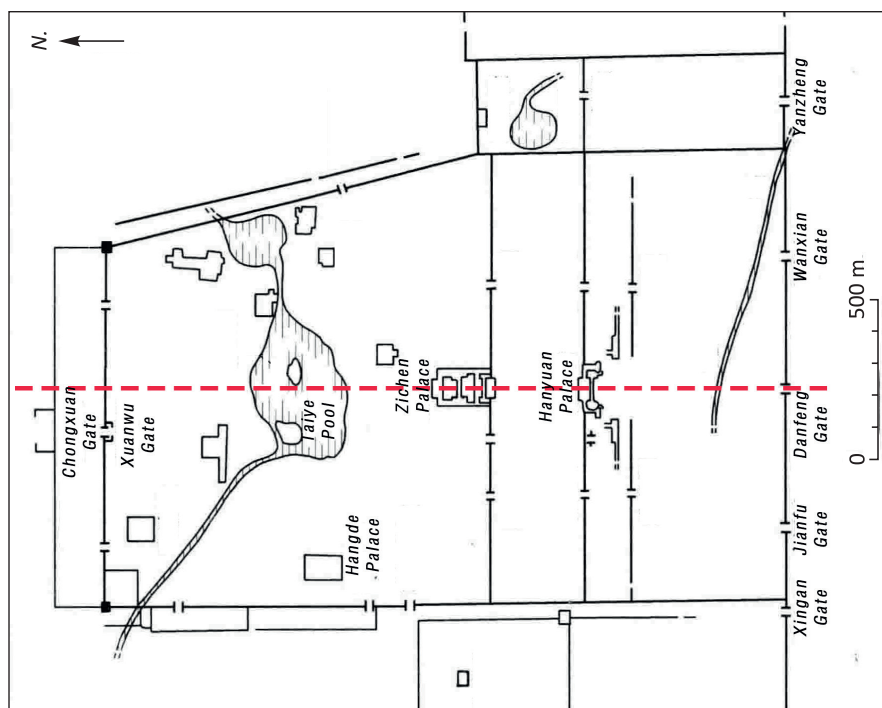
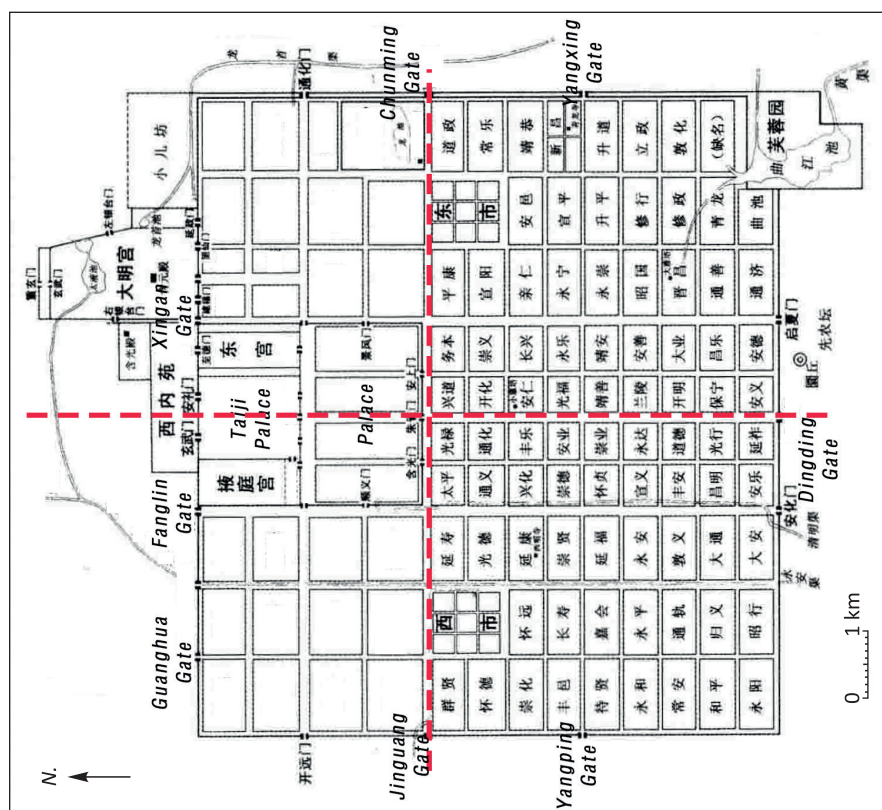


Fig. 9. Floor plan of the Ye City site of
Cao Wei



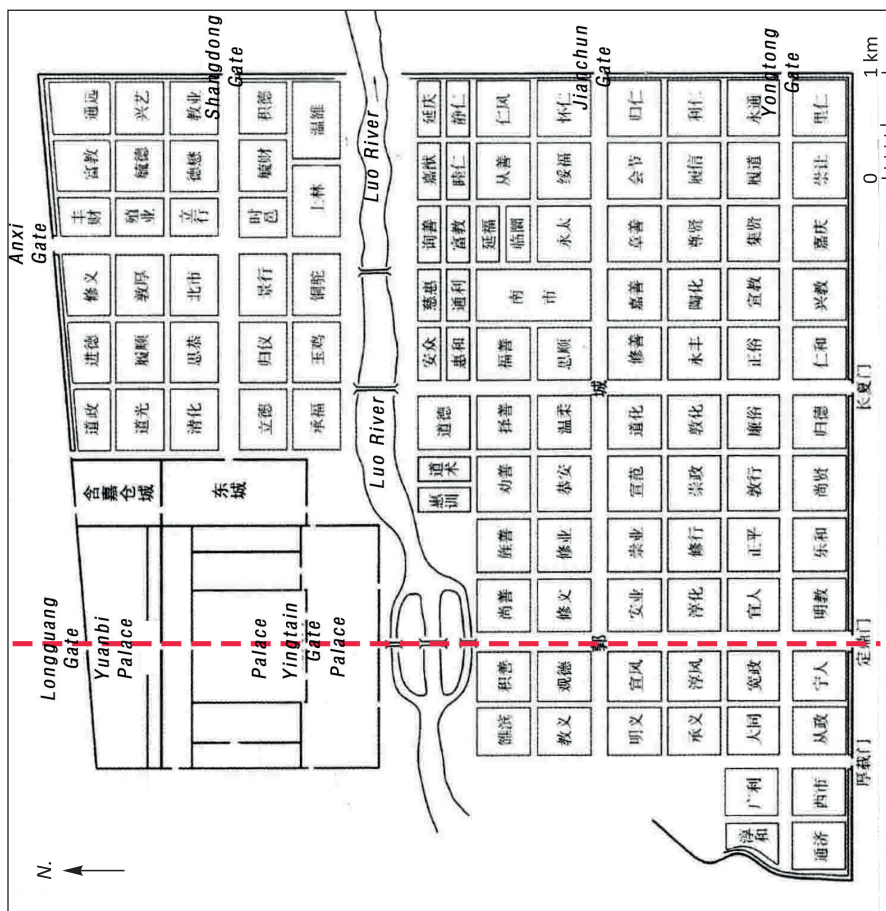


Fig. 12. Floor plan of Luoyang City site of Tang dynasty

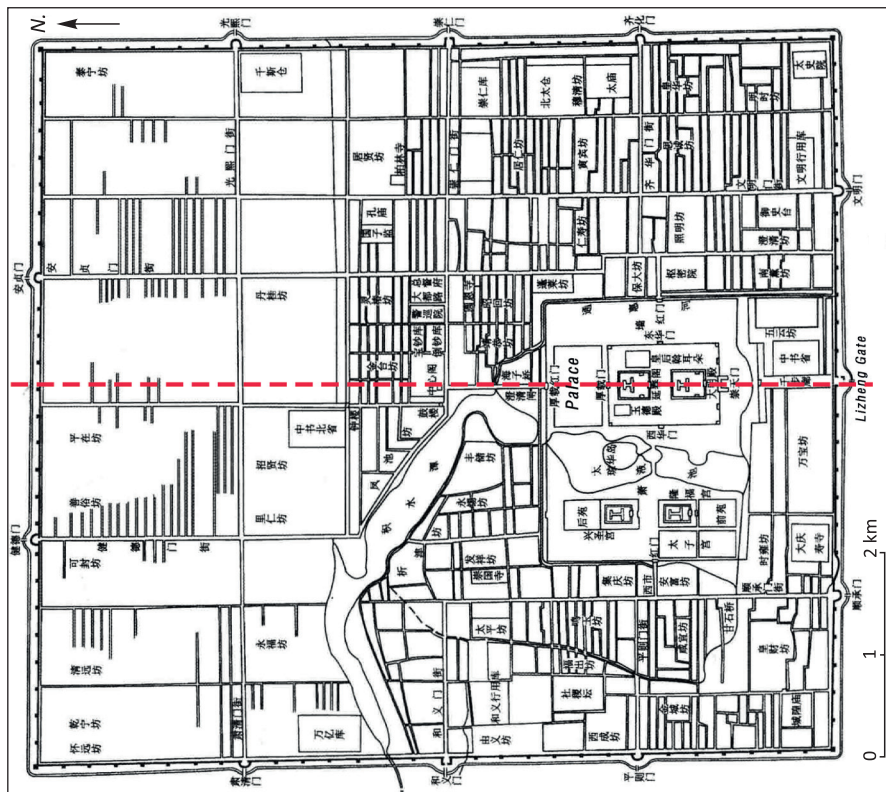


Fig. 13. Floor plan of Dadu City site of Yuan dynasty

At the end of the Eastern Han dynasty, great minister Dong Zhuo (?–192 AD) moved Emperor Xian (181–234 AD) from Luoyang to the west towards Chang'an City, and the Luoyang Palace was destroyed in the war [28, p. 87]. Emperor Ming of Wei dynasty (206–239 AD) rebuilt the capital on the ruins of old Luoyang in the Eastern Han dynasty and built the new Luoyang Palace. Luoyang Palace was a large-scale construction, the emperor built the Zhaoyang and Taiji palaces [28, p. 351]. There were still some names such as South Palace and North Palace in the ancient literature for the imperial cities of the Western Jin and Northern Wei dynasties or later [11, p. 211]. Therefore, it is generally believed, that the palace city in the Wei and Jin dynasties followed the old system of the confrontation between the south and north of the city of Han dynasty, and a single palace-city was formed in the Northern Wei dynasty (see fig. 8, insert). Relevant archaeological materials showed that the palace-city of the Northern Wei dynasty was used, while the Wei and Jin dynasties was built at the former place of the North Palace of the Han dynasty [29, p. 47]. It can be inferred that the Luoyang Palace of Cao Wei was a single palace system, which had been rebuilt in the northern part of Luoyang of Han dynasty. Because the palace-city was built at the place of the North Palace of the Han dynasty, it is located in the middle of the northern part of Luoyang City, and the Taiji Palace and Changhe Gate were also located in the west of the palace-city and the west of the south wall of the palace respectively. In this way, the Central Axis of the palace formed by the Taiji Palace and the Changhe Gate is obviously not in the middle of the city wall. It is the main road of Changhe South Street (Tongtuo Street) in Luoyang City, and leads south to Xuanyang Gate in the middle of the south city wall, thus forming the Central Axis of Luoyang City, which is obviously not in the middle but close to the west of the city.

In the overall layout of the city in the Eastern Han dynasty, because the South and North palaces were the main palaces, so the layout of the Central Axis appeared. The north-south prospect from Nangong Gate to Pingcheng Gate is not in the middle of the whole city, but it is the actual axis of Luoyang City in the Eastern Han dynasty. It seems that the city axis at that time was not the middle line of the whole city, but determined by the main palace. The road from the main palace to the south gate of the palace and its extension to the south was the axis of the city at that time.

The main palace of the Luoyang City of the Han and Wei dynasties was located in the middle of the north part of the city, while the ancestor temple was located in the south of the city. Such structure reflects not only the emperor's thought of a universal center, but also reflects the prominence of the imperial power and the decline of the worship of emperor's family.

The Central Axis of the Ye City site of Cao Wei dynasty. The Ye City is the ancient capital of Cao Wei (220–266 AD), Hou Zhao (319–351 AD), Ran Wei (350–352 AD),

Qian Yan (337–370 AD), Eastern Wei (534–550 AD) and Northern Qi (550–577 AD), occupying an important position in the development history of ancient Chinese capitals. The Ye City site is located in Santai Village, 17.5 km west of modern Linzhang County, Hebei Province.

In the ninth year of Jian'an (204 AD), Emperor Cao Cao (155–220 AD) built the Ye City, one of the five capitals of Cao Wei, whose Central Axis showed a new situation in the middle of the capitals. According to the modern investigation, the city site of Ye City was roughly east and west rectangular, and the north section of the west city wall was located in the three military camps named Tongjue, Jinhu and Bingjing, among which the platform-foundation sites of Tongjue and Jinhu were still preserved on the ground [30–32]. In the middle of the city site north of the east-west prospect, 10 buildings on rammed earth platforms, distributed on the east-west sides of Guangde Gate Prospect, should be the palace area. According to professor from the Institute of Archaeology of the Chinese Academy of Social Science Xu Guangji recovery research, the west is the outside palace, the east is the inside palace, the outer palace is the Wenchang Palace, the south of the palace, the south is the gate, the exit gate is the Zhongyang Gate Prospect [33]. Field survey, Zhongyang Gate Prospect was 730 m long and 17 m wide, which is the widest road in Ye City site. According to this, Zhongyang Gate Prospect is opposite to the Zhiche Gate and Wenchang Palace, forming the Central Axis of the city. This axis is located exactly in the middle of the city, and is symmetrical parallel to Guangyang Gate Prospect and Fengyang Gate.

Since the north city of Ye City was a new capital, which can be planned without any restriction, it had the ability to create the Central Axis and achieve a relatively strict layout system. The south city of Ye City was newly built close to the south side of Ye City (see fig. 9, insert).

From Jianchun Gate to Jinming Gate is the east-west axis, which is fully in line with the planning concept of the selection of the center of the capital, and has a profound influence on the descendants of Beijing in the Ming and Qing dynasties.

The Central Axis of the Chang'an City site in the Sui and Tang dynasties. At the beginning of the Sui dynasty (581–618 AD), the former site of Chang'an City in the Han dynasty became the capital again. In the second year of Emperor Huan (582 AD), he made new capital with minister Yu Wenkai as the chief designer, a total area of 83.1 km², soon it was the largest city in the world that time (see fig. 10, insert).

It's possible to stress that the layout of the Central Axis of the capital reached the ultimate scale in the Sui dynasty (581–618 AD) and Tang dynasty (618–907 AD). After the Sui dynasty destroyed the Northern Zhou dynasty (557–681 AD), a new capital city was built in the southeast of Chang'an City of the Han dynasty. The famous architect Yu Wenkai was responsible for the planning and construction. The plan of Chang'an City in Sui and Tang dynasties was rectangular, divided into outer

city, palace city and imperial city, which is located in the center of the north of outer city. The middle of the palace city was the Taiji Palace. The main palace was located in the middle of the south palace area, opposite to the main gate of the palace, forming the Central Axis of the palace. The imperial city was located in the south of the palace-city, across the horizontal street and without the north wall, for the seat of the central government office. Mingde Gate was the main gate to the south of the city, north to the gate of the imperial city. North-south Street, leading to Mingde Gate, was the widest street, reaching 155 m, as the central axis of the city.

Daming Palace was located in the northeast of outer city. It was built in the eighth year of Zhenguan (635 AD) of Emperor Taizong (599–649 AD) of the Tang dynasty, and was rebuilt in the second year of Longshuo (662 AD), and moved the government in the following year. Since then, the Daming Palace replaced the position of Taiji Palace as main emperor's palace and became the main place for the Tang emperors to obey the government, called «East Inner» (see fig. 11, insert).

The site of Daming Palace was obviously formed a Central Axis layout with Danfeng Gate, Hanyuan Palace, Xuan Zheng Palace, Zichen Palace, Taiye Pool and Xuanwu Gate as the core. The whole city sits from north to south, the Chengtian Gate, imperial city, outside wall, Mingde Gate as the north-south axis, palace-city, the imperial city is located in the north of the central position.

The planning layout of Chang'an City in the Sui and Tang dynasties was rigorous, forming a Central Axis with the palace-city as the core and connecting the important architectural facilities of the capital. The planning layout was clear, which fully reflected the ruling thought of the feudal emperor building of a universal center. It had an important influence on the capital planning of later generations, and had had a profound influence on the capital planning of East Asia.

The Central Axis of Luoyang City site in the Sui and Tang dynasties. The Luoyang City site of the Sui dy-

nasty (581–618 AD) and Tang dynasty (618–907 AD) are located in the city and suburbs of modern Luoyang City, Henan Province, across both sides of the Luo River. Mang Mountain in the north, the Chan River in the east, Jian River in the west, Luo River flows through it.

The outer wall was slightly nearly square. The Tang dynasty plan was slightly rectangular. The city wall is about 15–20 m wide, with rammed construction, inside and outside brick laying. In the middle of the south wall, the Ying Gate (Sui Ming Tian Gate), the Mingde Gate in the east (Sui Mingxing Gate), the Changle Gate in the west (Sui Ming Guangzheng Gate) and the Xuanwu Gate on the north wall, and the Jiayu Gate on the west wall [34; 35]. The imperial city revolves around the east, south and west sides of the palace-city, called Taiyi City, which is formed between the east and west sides and the palace-city (see fig. 12, insert).

From the existing archaeological data combined with documents, Luoyang Palace axis layout is clear, namely from south to north should be Dingding Gate, Guan Gate, Yingtian Gate, main palace. Ming Hall, Xuanwu Gate, Yuanbi Palace, Longguang Gate.

The Central Axis of the Yuan Dadu site. The capital of Yuan dynasty (1271–1368 AD) was located in the north part of modern Beijing. The plan shape of the great capital is north-south vertical rectangular (see fig. 13, insert).

The city structure formed by the Central Axis with Chongtian Gate, Daming Palace, Yanchun Pavilion, Houzai Gate as the core had a great impact on the Ming dynasty (1368–1644 AD) and Qing dynasty (1636–1912 AD).

The Central Axis planning and design of Yuan Dadu follows the Central Axis planning concept of the previous dynasty, and the planning was more detailed, which had a direct impact on the later Ming and Qing dynasties, and had a profound impact on the planning of Beijing today. The design of the Central Axis of Yuan Dadu is still in use today, and it has become the main factor for the Central Axis of Beijing to apply for world cultural heritage.

Conclusions

The Central Axis is an important principle in the planning of ancient Chinese capital cities. The following conclusions are:

1) the generation of the concept of Central Axis is based on the ancient Chinese worship of the natural Universe, the ancient view of time and space, and the habit of people living in the north hemisphere, the most important was the emperor in the choice and the ethics, and the next is the influence of royal power and regulation;

2) the development of the concept of Central Axis of the ancient Chinese capital was not a straight rise, but a spiral. The Central Axis of settlements and capitals in the Xia, Shang and Zhou dynasties developed obviously, while the Central Axis of Chang'an in the Western Han dynasty was not very standardised due to objective rea-

sons, and reached its peak in the Chang'an City in the Sui and Tang dynasties;

3) the emergence, development and change of the Central Axis of ancient Chinese capital is the most obvious embodiment of the development and change characteristics of ancient Chinese capital, and also the external expression of the development of national management mode from ancient times to the present. The Central Axis concept is the most obvious characteristic of ancient Chinese capitals, the idea of the Central Axis was originated in the early development of the society of slavery, represented by palace of a ruler and ancestral temple of emperor's family, later in the early feudal society of Han, representation was stressed on palace accompanied by temple of imperial power. It shows the strengthening of a state power in Ancient China.

References

1. Li Zizhi. [Central axis of ancient Chinese capital city]. *Archaeology and Cultural Relics*. 2004;4:33–42. Chinese.
2. Zhou Runshan. [On the layout of the Central Axis of the ancient capital city of China]. *Lishi Zhaxue*. 2007;3:29. Chinese.
3. Chen Aiping. [On the development of the Central Axis of the ancient Chinese capital city]. *Journal of Tanshou University*. 2004;3:24. Chinese.
4. Wang Guixiang. [A brief discussion on ancient Chinese garden and capitals]. *Zijincheng Xuehui Hui Kan*. 2007;531:79. Chinese.
5. Chen Jing. [The development and traceability of the Central Axis of the ancient capital]. *Chinese Cultural Heritage*. 2000;6:21. Chinese.
6. Liu Qingzhu. [Several problems in the archaeology of ancient Chinese palace]. *Cultural Relics*. 1998;3:49–57. Chinese.
7. Liu Qingzhu. [Archaeological discovery and research of the palace and temple ruins of the ancient Chinese capital]. In: Guo Yiwen, editor. *Gudu wen dao* [Ask the ancient capital]. Beijing: Chinese Social Miscellaneous Company; 2015. p. 238–256. (Zhongguo Shehui Kexueyuan Xuebu Weiyuan Zhuanti Wenji). Chinese.
8. Li Xueqin, editor. *Qinghua daxue Zang Zhanguo zhujian. Juanshu 2* [Warring States Bamboo Slips Collected by Tsinghua University. Volume 2]. Shanghai: Chinese and Western Book Company; 2010. 280 p. Chinese.
9. Feng Shi. *Wenming yi zhi: shanggu de tianwen, sixiang yu zhidu* [Beyond civilisation: ancient astronomy, thought and system]. Beijing: Chinese Social Sciences Press Company; 2018. 643 p. Chinese.
10. Yuan Guangkuo. The ancient Heji region and the formation of shed countries. *Zhongyuan Wenhua Yanjiu*. 2013;5:53–58. Chinese.
11. Sima Qian. *Shiji* [Historical records]. Shanghai: Zhonghua Book Company; 1959. 3356 p. Chinese.
12. Dong Jianhong. *Zhongguo chengshi jianshe shi* [The history of urban construction in China]. 3rd edition. Beijing: Chinese Construction Industry Press Company; 2004. 450 p. Chinese.
13. He Yeju. The history of ancient Chinese urban planning. Beijing: China Architecture and Building Industry Press; 1996. 678. p. Chinese.
14. He Nu. [The contribution of Taosi culture to Chinese civilisation]. *Nanfang Wenwu*. 2020 March:22–46. Chinese.
15. Zheng Guang, Zhao Zhiquan. [The No. 2 Erlitou Palace site, Yanshi City, Henan Province]. *Kaogu*. 1983;3:31. Chinese.
16. Zhao Zhiquan. *Yan shi er litou: 1959–1978 Nian kaogu fajue baogao* [Yanshi Erlitou: report on archaeological excavations from 1959 to 1978]. Beijing: Encyclopedia of China Publishing House; 1999. 594 p. Chinese.
17. Xu Hong, Zhao Haitao. [Investigation and excavation of Erlitou site palace city and palace area outer roads in Yanshi City, Henan Province]. *Kaogu*. 2004;11:26–33. Chinese.
18. Wang Xuerong. *Henan yan shi shangcheng yizhi de kaogu fajue yu yanjiu shuping* [A review of the archaeological excavations and research of the Yanshi Mall site, Henan Province]. Beijing: Chinese Social Sciences Company; 1997. 649 p. Chinese. (Archaeological knowledge collection.)
19. Zhao Zhiquan. [Introduction to architecture of Yanshi City, 1983–1999]. *Huaxia Archaeology*. 2001;2:76–79 Chinese.
20. Lei Xingshan. [Bulletin on excavation of West Zhou building base site in Fengchu Village, Qishan, Shaanxi Province]. *Cultural Relics*. 1979;10:27–37. Chinese.
21. Liu Qingzhu. [Research on the archaeological discovery and related problems of Han Chang'an, Han dynasty – commemorates the forty years of Chang'an, Han dynasty]. *Kaogu*. 1996;10:27–49 Chinese.
22. Liu Qingzhu. [A preliminary discussion on the layout of Weiyang Palace in Chang'an City, Han dynasty]. *Kaogu*. 1995;12:46–59. Chinese.
23. Yan Wenru. [City site of Luoyang in Han, Wei, Sui and Tang dynasties]. *Acta Archaeological Sinica*. 1955;9:117–121. Chinese.
24. Duan Pengqi, Qian Guoxiang. [Preliminary exploration of Luoyang City, Han and Wei dynasties]. *Kaogu*. 1973;4:209–217. Chinese.
25. Duan Pengqi, Qian Guoxiang. [Lingtai Site in the Southern suburb of Luoyang, Han and Wei dynasties]. *Kaogu*. 1978;1:54–57. Chinese.
26. Qian Guoxiang, Guo Xiaotao. [Exploration of Guocheng and Waterway outside Luoyang in the Northern Wei dynasty]. *Kaogu*. 1993;7:37–39. Chinese.
27. Qian Guoxiang, Guo Xiaotao. [Excavation of Luoyang Old City Wall in the Han and Wei dynasties]. *Kaogu*. 1998;3:1–15. Chinese.
28. Fanye. *Houhan shu xiandi ji* [Book of the Later Han dynasty]. Beijing: Zhonghua Book Company; 1965. 3678 p. Chinese.
29. Qian Guoxiang. [The form system of Han and Wei Luoyang Palace]. *Kaogu*. 2003;7:47–61. Chinese.
30. Yu Weichao. [Ye City investigation]. *Kaogu*. 1963;1:23–31. Chinese.
31. Hebei Province, Linzhang County Cultural Relics and Household Protection Research Institute. [Ye City Archaeological Investigation and Drilling Bulletin]. *Zhongyuan Wenwu*. 1983;4:77–89. Chinese.
32. Institute of Archaeology, Chinese Academy of Social Sciences, and Yecheng Archaeological Team of Hebei Provincial Institute of Cultural Relics. [Brief exploration and excavation of Yebei City site in Linzhang, Hebei]. *Kaogu*. 1990;7:231–250. Chinese.
33. Xu Guangji. *Caowei ye cheng de pingmian fuyuan yanjiu* [Plane restoration of Ye City]. Beijing: Science Press Company; 1995. 117 p. Chinese. (Institute of Archaeology, Chinese Academy of Social Sciences, editor. Chinese archaeology collection – commemoration of the 40th anniversary of the Institute of Archaeology, Chinese Academy of Social Sciences.)
34. Luoyang Cultural Relics Task Force. [Excavation bulletin of Ying Tian Gate site]. *Zhongyuan Wenwu*. 1988;3:36–60. Chinese.
35. Wang Shengxi, Liu Jiayi. [Luoyang archaeology and Ying Tian gate east site]. *Guangming Ribao*. *Guangming Daily*. 2021 January 15;4. Chinese.

Статья поступила в редколлегию 04.03.2023.
Received by editorial board 04.03.2023.