

Analysis of the "20 Li Square" and "20 Li Perimeter" of the Outer City Wall of Pingcheng in Northern Wei Dynasty

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Abstract. Regarding the scope of the outer city of Northern Wei, there are two different records in historical books: "twenty li square" and "twenty li perimeter". However, both recorded lengths differ from the actual length of the outer city ruins, leading to some controversy. Through a review of historical materials and analysis of relevant facts, it is believed that the actual length of the outer city wall is twenty li perimeter. The extent of the Northern Wei outer city is the extent of the walls of The Ming Datong Prefecture City site, but its length is less than twenty li. By analyzing historical materials and related literature and exploring the social background of Northern Wei's time period, it is suggested that this discrepancy may be due to an imperfect system and inconsistent measurement standards at that time period as well as builders not strictly following measurement systems for construction.

Keywords: The Outline of the Outer City of Pingcheng in the Northern Wei Dynasty · the Xianbei Tuoba Clan · the System of Measurement and Weights

1 Introduction

Emperor Tuoba Gui established Northern Wei and made Shengle the capital in 386, then moved to Pingcheng in 398, and finally to Luoyang in 495. Pingcheng had been the capital for nearly a century. The rulers of Northern Wei were the Xianbei Tuoba clan from northern nomadic tribes. In order to expand their territory and strengthen their power, the Tuoba clan began learning about Central Plains' culture and systems. Therefore, Pingcheng's urban development was influenced by both traditional Central Plains culture and minority characteristics. Most scholars believe that there were three layers of walls in Pingcheng: palace city, outer city, and Guo city. Among them, the outer city has relatively intact and continuous wall remains. The determination of the scope of the outer city and exploration of related social systems are of great historical value and practical significance for research on Northern Wei and its urban system.

2 Analysis of the "20 Li Square" and "20 Li Perimeter" Recorded in Historical Texts

There are two different records in historical books about the scope of the outer city: "a square of twenty li¹" and "a circumference of twenty li" [1], with a significant difference between the ranges indicated by these two descriptions.

The first issue to be discussed is whether the "twenty li square" recorded here refers to the planning or construction scope of the outer city.

On the one hand, before the Northern Wei dynasty moved its capital to Pingcheng, Shengle was its capital city. From the layout of Shengle City, it can be seen that the construction of the capital city was still very primitive and lacked basic axial consciousness and weak planning awareness [2]. Therefore, it is unlikely that such a well-organized outer city was comprehensively and elaborately constructed at the beginning of building Pingcheng.

On the other hand, in 398 AD, Northern Wei Dynasty moved its capital to Pingcheng and built the Western Palace in 404 AD. It was not until 434 AD that the (New) Eastern Palace was completed, and the scope of the palace city did not expand [1]. The construction of Northern Wei's palace city was not accomplished overnight, indicating that at that time, Northern Wei's manpower, material resources, and financial resources were not particularly abundant. Therefore, it is believed that in 405 AD, it is unlikely that Northern Wei could have built an outer city with clear functional zoning and well-connected roads on such a large scale.

In 406 AD, Emperor Daowu conscripted people from eight tribes to "repair and renovate the capital" within a radius of 500 li, marking the beginning of the "urban settlement system" in the capital [1]. The historical record shows that Emperor Daowu's renovation of the capital within 500 li and construction of an outer city were carried out in the same year, both being large-scale urban development projects. Therefore, these two records should refer to the same event. Thus, at the beginning of constructing a new capital city, Emperor Daowu planned and developed within a radius of 500 li and designated an area around Pingcheng of Han Dynasty as "twenty square li" for the outer city planning to fit with the situation at that time.

Emperor Daowu Tuoba Gui appointed the then-Left General Mo Ti to oversee the construction of the outer city, but Mo Ti neglected his duties and did not carry out Emperor Daowu's orders seriously, resulting in his execution [1]. The extent to which this planned area of twenty square li was actually built is not detailed in historical records, but from Mo Ti's death it can be seen that this scope was not fully implemented.

The second issue to be discussed is whether the "perimeter of 20 li" refers to the length of the Western Palace² or the length of the outer city wall.

Firstly, due to limited experience, abilities and technology in palace construction, the Palace City was gradually expanded. In 423 AD, Emperor Mingyuan built the Wanshou

¹ "Li" is a traditional Chinese length unit. In the early period of the Northern Wei dynasty, 1 li was approximately equal to 460.26 m in modern times.

² The Western Palace, which includes the places where the Empress Dowager and Emperor reside and their affiliated areas. The Eastern Palace, which includes places where the Empress and Crown Prince reside and their affiliated areas.

Palace on the site of the former Eastern Palace, which was then incorporated into the ownership range of Western Palace³. In 432 AD, Emperor Taiwu built a new Eastern Palace and in 434 AD, one third of Western Palace was separated out as Eastern Palace [1]. Since then, there have been no major expansions to the palace city. It can be seen that the scope of Western Palace continued to change until it was basically determined in 434 AD. Therefore, building a fixed wall for Western within an area that was constantly changing does not make sense in 423 AD.

Secondly, the outer wall of Luoyang in Eastern Han Dynasty had a perimeter of 31 li, with the Northern Palace encompassing approximately 11 li and the Southern Palace about 9.5 li (due to limited historical records, these measurements are based on Wang Z.S.'s reconstruction map of Eastern Han Luoyang and are only approximate values). The perimeter of Cao Wei's palace city in Luoyang was smaller than that of Eastern Han Luoyang. The outer wall of Ye City in Cao Wei had a perimeter of 24 li, while the palace city (including Bronze Sparrow Garden) was less than 15 li [3].

After the Northern Wei, the perimeter of the palace in Luoyang in Northern Wei was about 7.7 li (according to archaeological measurement, the North-South length of the palace in Luoyang in Northern Wei was 1398 m and the East-West length was 660 m³, equivalent to about 7.7 li in Northern Wei's measurement). Even the palace perimeter of the later international metropolis of Chang'an in Sui and Tang Dynasty was only about 16.2 li (the North-South length of Chang'an was 1492.1 m and the East-West length was 2820.3 m [3], equivalent to about 16.2 li in Sui's measurement).

During the Wei, Jin, Southern and Northern Dynasties, the development of the palace in the capital city followed the law of centralization, from dispersion to concentration, and from large to small [4]. At that time, the perimeter of the famous palace in Northern China was less than 20 li, and the construction of a palace city with a perimeter of 20 li in Northern Wei was too large in scale, which did not conform to the development trend of the time.

Therefore, the "outer wall" that Emperor Mingyuan of Northern Wei expanded in 423 AD was not the wall of the palace city, but the wall of the outer city with a perimeter of "twenty li".

3 The Reason Why the Outer City Walls Are Less than 20 Miles in Perimeter

The rammed earth walls of the four walls of The Ming Datong Prefecture City site existed in the Northern Wei Dynasty [5], so it is believed that it is the scope of the Northern Wei Outer City (as shown in Fig. 1). Historical records state that the perimeter of the Northern Wei outer city was 20 li, which is 9.2 km according to the former ruler of the Northern Wei Dynasty, and the perimeter of the wall of The Ming Datong Prefecture City site was about 7.24 km [6], which can be seen that there is a certain gap between the two. So what is the reason for the discrepancy between the actual perimeter of the outer city of Pingcheng during Northern Wei and the recorded 20 li in historical records?

³ After being renovated as Wanshou Palace, which was used by Ming Emperor Yuan, it was included within the jurisdiction of the Western Palace.

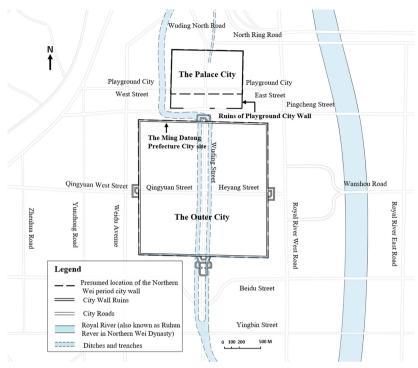


Fig. 1. Diagram of the location of the palace and outer city of Pingcheng in the Northern Wei Dynasty (Image source: Self-drawn)

In October 423, Emperor Mingyuan expanded the Western Palace and built an outer wall. In November, he passed away at the Western Palace [1]. Therefore, some scholars believe that the plan to build the outer city after Emperor Mingyuan's passing may not have been carried out [7], which has some validity.

But Emperor Taiwu conducted urban construction throughout his reign [1], indicating a positive attitude towards city building. The plan to build an outer city would not be shelved. In addition, the Tuoba clan was a nomadic tribe that waged wars everywhere and had certain requirements for urban military defense. Improving the outer city walls was part of strengthening urban defense. Therefore, Emperor Taiwu implemented the plan to build an outer city as carried out by Emperor Mingyuan, with other reasons resulting in a total actual perimeter of less than twenty li for the outer city.

On one hand, during the Wei, Jin, Southern and Northern Dynasties period, there were rapid changes in measurement units. The scale was constantly expanding and the conversion between chi and bu, as well as bu and li (traditional Chinese units), also changed. At the same time, there were frequent changes of power during this period, so there was no fixed standard for measurement units among different regimes [8]. During the Northern Wei period, the Tuoba clan had limited information about previous dynasties' measurement units when they established a unified system of weights and measures that was widely applied to urban construction. This posed some difficulties for Tuoba

clan who had just started learning about Central Plains' culture [1]. Therefore, although length standards were established in the early Northern Wei period, uncertainties still existed regarding their implementation.

On the other hand, during the Northern Wei period, the Tuoba clan's own society had just entered into slavery. In order to rule over feudal societies with a higher level of political, economic and cultural development than their own, they began to learn about the Central Plains cultural system. However, there were differences between slave and feudal societies in terms of their production relations, which inevitably resulted in many contradictions. The Northern Wei formulated laws and measures according to the system of the Central Plains dynasties to demonstrate their orthodox status and consolidate their rule over various cities in the Central Plains. However, this conflicted with tribal traditions and many of these systems were only superficial [9]. Therefore, it is uncertain how widely these measures were promoted at that time or whether people (of the Tuoba clan) followed them when executing construction projects and so on.

Therefore, due to the imperfect system of the Northern Wei Dynasty, the confusion of measurement units and the lack of strict adherence to measurement standards by builders etc., the actual length of the outer city is less than 20 li.

4 Conclusions

The capital city of Northern Wei, Pingcheng, combines the characteristics of Central Plains and ethnic minority cultures. This article analyzes the scope of the outer city recorded in historical documents and explores the reasons why they do not match with the historical relics. Emperor Mingyuan planned to build an outer city with a perimeter of 9.2 km, but due to imperfect social systems and failure to strictly follow measurement standards during construction, the actual length of the outer city was only 7.24 km. The construction of Pingcheng's outer city explains the differences and rationalities between urban development by the Xianbei tribe of Northern Wei under an incomplete feudal social system and that by traditional Central Plains' ethnic groups during cultural exchange and collision with nomadic cultures.

References

- 1. Liu, Y. (2010) Book of Wei. Beijing Yanshan Press, Beijing. ISBN: 978-7-5402-2187-4.
- Chen, Y.Z., Li, Q., Liu, G. (2006) Main gains from archaeological excavations of the ancient city of Tuchengzi, Hellinger County. Inner Mongolia Cultural Relics and Archaeology, 01:9-16+117-119.
- 3. He, Y.J. (1996) The history of ancient Chinese urban planning. China Construction Industry Press, Beijing. ISBN: 7-112-02039-5.
- Wang, G.X. (2015) An Exploration of the Evolution of Ancient Chinese Capitals. Fine Arts Great View, 08: 83-87. ISSN: 1002-2953.
- Wang, Y.T., et al. (2017) Archaeological study of the Northern Wei Pingcheng the evolution of the Chinese capital in the fifth century AD. Science Press, Beijing. ISBN: 978-7-03-052535-2.
- Gao, Z., Duan. Z.J., Zhao, N.D. (2011) The history of urban architecture in Datong, Northern Wei, Pingcheng, Liao and Jin, Xijing. China Construction Industry Press, Beijing. ISBN: 978-7-112-12966-9.

- 7. Huang, H.X. (2010) Studies and materials on the history of Wei, Jin, North and South Dynasties, Sui and Tang. Hubei People's Publishing House, Wuhan. ISBN: 978-7-216-06034-9.
- 8. Lu, J.X., Qiu, G.M., et al. (2001) Chinese History of Science and Technology: Volume on Weights and Measures. Science Press, Beijing. ISBN: 9787030078919.
- 9. Yan Y.Z. (2019). Duet The Political System of the Pre-Northern Wei. Chinese-Western Books, Shanghai. ISBN: 978-7-5475-1641-6.
- Wang, Z.S. (1984) An Introduction to Han Dynasty Archaeology. China Book Bureau, Beijing. ISBN: 11018-1170.
- 11. Zhang, Y. (1961) Tuchengzi test excavations in Hellinger County. Cultural relics, 09: 26-29.

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