

Analysis of Border Trenches in Hulunbuir, China

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Abstract

This paper explores the multiple functions of Liao Dynasty border trenches and their historical significance. This paper systematically studies the background, use and influence of the Liao Dynasty border trenches in Hulunbuir region from three levels, namely, shape distribution, functional roles and cultural and historical significance via literature analysis, field survey and spatial analysis. The research suggests that the border trench is not only a military defense facility, but also an important link for border governance, economic development and cultural integration in the Liao Dynasty. However, there are still controversies on the division of history into historical periods, construction purpose of, and its multifunctionality. In the future research suggests strengthening the application of science and technology, interdisciplinary cooperation and international comparison to further reveal the historical value and cultural significance of the Liao Dynasty border trenches.

Keywords

Liao Dynasty border trench; military defense; cultural integration; border governance; historical significance.

1. Background of the Study

The Liao Dynasty border trenches are important remains of the history of China's northern border, stretching across the territory of present-day China, Russia, and Mongolia, as an important military engineering for the defense and border domination in the Liao Dynasty, academic circles have explored its historical background, construction years, function, and significance from various levels. As early as in the 19th century, Russian scholar P.A. Kropotkin first systematically investigated the ancient border trench of Hulunbuir and called it "Genghis Khan's Border Wall", this story has been widely quoted by subsequent Russian and Western scholars (B.B. Bornosov 1991). In Chinese circles, Heilongjiang cultural relics survey initiated a large-scale archaeological study on Liao Dynasty border trenches in 1975, clearly listing its distribution and main forms, which became the starting point for the academic research.

In recent years, along with the development of border archaeology and the application of multidisciplinary research methods, scholars have gradually realized that the Liao Dynasty border trenches were not only military engineering, but its construction could also be tied to political, economic, cultural, and ecological governance (Jing Ai, 1982; Mi Wenping, 1991). However, most of the existing studies focus on macroscopic functional descriptions and lack further discussion on the specific features, cross-regional comparisons, and long-term evolution of the Liao Dynasty border trenches.

This paper is aimed to integrate the existing research results, systematically analyses the ancient border trenches in Hulunbuir, explores the construction background, function, and historical significance, and try to provide a new perspective for further revealing the complexity of Liao Dynasty border governance.

2. Definition of Core Concepts

2.1. Definition and connotations of the border trenches

"Border trench" is the earth and stone defense installation built by ancient regimes to achieve effective control of border areas, whose functions usually go together with military defense, border management and economic development. In academic research, the concept of border trench shows diversified development. Early studies regarded the border trench as a single military defense installation, believing that its main purpose was to resist the invasion of nomadic tribes. For example, the (History of the Liao Dynasty: Geographical Chronicle) clearly recorded that the Liao Dynasty's territory extended as far north as the Luqu River (Kherlen River) and mentioned the defensive role of the border trenches (Jing Ai, 1982). However, in recent years, some scholars have begun to pay attention to the multifunctionality of the border trenches, including their roles in border agricultural development, transport networks and administration.

This paper believes that the core connotations of "Liao Dynasty Border Trenches" should include the following aspects:

- (1) As an important part of the Liao Dynasty's border military defense system, it embodied the Liao dynasty's need for strategic defense against the nomadic tribes in the north;
- 2) Its functions in the socio-economic governance of the border, including the promotion of agricultural development and commerce flows;
- (3) As a symbol of culture and power, it reflects the Liao Dynasty's domination and cultural exchanges with border peoples and regions.

2.2. Construction background and time division of the border trenches

There is great controversy in the academic circles on the construction background of the Liao Dynasty border trenches. Some scholars believe that it was built in the middle and late Liao Dynasty to defend against the raids of nomadic tribes in the north (Sun Xiuren, 1979; Jing Ai, 1982), while other scholars believed it was built in the Jin or Mongolia periods, arguing that it was built to strengthen the control over the northern border, especially the defense against tribes such as the Zubu (Tartar) (Feng Yongqian, 1990; Li Pihua, 2004).

According to the records of the Liao History and Jin History and archaeological discoveries (for example: pottery fragments of Liao Dynasty, fort remains and irrigation facilities), this paper adopts the Liao construction theory as the main basis for judgement. Moreover, considering its continuous use and repair during the Jin and Mongolia periods, this paper regards the border trench as a multi-period and multi-functional historical relic.

2.3. Main research contents of the border trenches

Combining existing research, the research on Liao Dynasty border trenches covers the following three main aspects:

- (1) Shape and distribution: the material form, geographical distribution and spatial features of the border trenches were studied through archaeological investigation.
- 2) Functions and roles: the specific roles of border trenches in military, economic and social governance were explored, such as their links with forts and agricultural facilities.
- (3) Historical significance and cultural mixing: the roles of the border trenches national integration, cultural exchanges, and symbols of power in the border areas were analyzed.

By defining the core concepts, this paper aims to define the many levels of features of the Liao Dynasty border trenches as a complex historical phenomenon, and provides a theoretical framework for subsequent research.

3. Topic Classification and Defects of Previous Studies

Existing studies on Liao Dynasty border trenches can be broadly divided into the following three major topic categories, each type of study has significant defects along with its contributions. These defects provide the basis and direction for the research questions posed in this paper.

3.1. Construction years and function positioning of the border trenches

3.1.1. Main points

The first type of study is concerned about the construction years and function positioning of the border trenches. The study on this topic aims to determine when the border trenches were constructed, what they did, and the historical context they embodied. Based on documentary and archaeological evidence, many scholars believe that the border trenches were mainly constructed in the middle of the Liao Dynasty to defend against the invasion of northern nomadic tribes, such as Shiwei and Zupu. For example, Jing Ai combined the records of History of the Liao Dynasty: Geographical Chronicle and archaeological investigations in his paper, pointed out that the distribution of border trenches roughly coincided with the border of the central region of the Liao Dynasty. Some scholars also attribute the construction of border trenches to the Jin or Mongolia periods to consolidate territorial control.

3.1.2. Defects

Although this type of study lays the foundation for the times and functional study of border trenches, there are the following defects:

(1) Limitation of the documentary basis: existing research relies more on the records of official history books such as History of Liao Dynasty and History of Jin Dynasty, however, these documents have the limitations of the official perspective. For example, the function description of the border trenches in the documents mostly focuses on military defense, ignoring its economic and social functions.

(2) Contradiction of archaeological evidence: some studies have different interpretations of the construction years of the border trenches, mainly due to the lack of uniformity in the basis for the division of history into periods of archaeological materials such as pottery fragments and remains. Archaeological findings from different regions often show the features of multi-period use, but researchers have paid less attention to the dynamic changes in the function of the border trenches in different historical periods.

(3) Lack of overall perspective: the existing studies on the function positioning of the border trenches are mostly limited to a single perspective (such as military defense), lacking investigation onof its multifunctionality. For example, there is still a lack of study on the connection between the border trenches and the surrounding forts, agricultural facilities and transport networks.

3.2. Shape and spatial distribution of the border trenches

3.2.1. Main points

The second type of study focuses on the shape features and spatial distribution of the border trenches. In 1975, the Heilongjiang Provincial Museum and other units conducted an archaeological survey of the border trenches in Hulunbuir, which made mixed earth and stone structure along the terrain clear for the first time, and pointed out that it is southeastern-northwestern orientation, spanning the three countries: China, Russia, and Mongolia. Since then, some scholars have further confirmed the length, distribution and adjacent facilities of the border trenches through remote sensing and mapping and other technologies.

3.2.2. Defects

(1) Limited data coverage: although archaeological surveys have provided preliminary knowledge of the shape and distribution of border trenches, the coverage of existing studies has mostly focused on parts of China, and surveys of border trench remains in Russia and Mongolia are still relatively weak, affecting overall understanding.

(2) Limitations of archaeological technology: early research mostly relied on ground surveys and simple mapping means, failing to make full use of modern remote sensing, geographic information systems (GIS) and other technical means to analyze the complete picture of the border trenches and their spatial distribution laws.

(3) Missing spatial distribution and functional correlation: whether the distribution shape of the border trenches is influenced by regional economy, transport network or natural geographic conditions has not been studied in depth. In addition, the spatial correlation between border trenches and forts and irrigation facilities has not been sufficiently analyzed, making it difficult to fully reveal their functional structure.

3.3. Historical and cultural significance of the border trenches

3.3.1. Main points

The third type of study explores the significance of the border trenches from historical and cultural perspective. These studies tend to focus on the border trench as a symbol of Liao Dynasty's border policy, its role in national integration and the display of power. For example, Mi Wenping (1991) pointed out that the border trenches were not only physical barriers, but also the embodiment of the Liao Dynasty's carrot-and-stick policy in northern national relations. Some scholars regarded the border trenches as hubs of cultural and economic exchange in the border areas, emphasizing their role in promoting interaction between the Han and the northern nomadic peoples.

3.3.2. Defects

(1) Interpretation of cultural significance is subjective: many studies rely more on documents to infer the cultural function of the border trenches, but lack direct archaeological evidence to support it. For example, the specific embodiment of the border trenches in the border national interaction has not yet been analyzed in detail.

(2) Neglecting the multinational perspective: existing studies have often interpreted the historical significance of the border trenches from the official position of the Liao Dynasty, neglecting the understanding and utilization of the border trenches by northern nationalities such as Shiwei and Zubu, and failing to fully present its features of multicultural integration in an all-round way.

(3) Insufficient dynamic research on the evolution of functions: although the phenomenon of multi-period use of border trenches has been initially confirmed, the studies are mostly focused on the Liao Dynasty, and there is a lack of systematic analysis of its functional changes in the Jin Dynasty and the Mongolia period.

3.3.3. General analysis

Although the above three types of studies reveal the historical value of the Liao Dynasty border trenches from different perspectives, there are still the following common problems in general:

(1) Lack of comprehensive analysis of multivariate data, especially the lack of organic integration between documents and archaeology;

(2) Single research perspective, mostly focusing on military functions and ignoring the multifunctionality of the border trenches at the economic, social, and cultural levels;

(3) The dynamic evolution of the border trenches has been less explored, failing to fully reveal their functions and significance change in different historical periods.

4. Posing of Research Questions

Based on the review and defects analysis of previous studies, this paper intends to conduct further study around the multifunctionality and historical significance of the Liao Dynasty border trenches, combining archaeological, historical, and spatial analysis methods. The specific research questions and their sub-questions are as follows:

4.1. Main research questions

Liao Dynasty's border trenches were a core component of the border defense and governance system, how do their shapes, functions, and historical significances dynamically evolve?

4.2. Sub-research questions

4.2.1. Shape and spatial distribution

What are the features of the shape of the Liao Dynasty border trenches and their distribution laws?

Are there differences in materials, construction and scale of border trenches in different areas? What functional needs might these differences reflect?

Is the spatial distribution of border trenches influenced by natural geographical conditions, military requirements and economic activities?

4.2.2. Functions and roles

What are the specific roles of the border trenches in the military defense of the Liao Dynasty borders? What was its relationship with the surrounding forts and beacon towers?

What is the role of the border trenches in the agricultural development of the border, in the construction of transport networks and social governance?

Did the function of the border trenches change during the Liao, Jin and Mongolia periods? How did these changes reflect the adjustments in border policy during different historical periods?

4.2.3. Cultural and historical significance

Did the border trenches as a symbol of the Liao Dynasty's power and have a specific cultural significance?

How did the northern nomadic peoples (such as the Shiwei and Zubu) perceive and utilize the border trenches?

Did the construction and use of border trenches have an impact on multi-national integration and regional cultural transmission in the Liao Dynasty?

5. Exploration of the Multifunctionality and Historical Significance of the Liao Dynasty Border Trenches

The Liao Dynasty border trenches were important military and administrative facilities on the northern border, and its functionality and historical significance have received extensive attention in research. This paper explores its multiple functions based on an integrated approach of document, field survey and spatial analysis, aiming to reveal the important role of the border trenches in the ruling strategy of the Liao Dynasty, as well as their far-reaching impact on regional history and multi-national interaction.

5.1. Military defense functions

5.1.1. Integration of the border trenches and Liao Dynasty military system

As a military defense engineering in the Liao Dynasty, the border trench was an important means for the rulers to cope with the invasion of northern nomadic people and consolidate the border security. History of the Liao Dynasty: Geographical Chronicle recorded: "north to the

Luqu River", which is highly consistent with the distribution of the border trenches, it suggests that they are important parts of the border of the Liao Dynasty (Sun Xiuren, 1979).

The military functions of the border trenches are reflected in the following aspects:

- (1) As a physical barrier: the border trenches increased the difficulty of enemy crossing and slowed down their attack speed through the combination of ditch and earth embankment;
- (2) Observation and early warning system: forts (such as forts 1-52) laid along the border trenches, which are not only garrison positions, but also form a dense surveillance network to transmit information about the enemy in time;
- (3) Coordination with Liao army tactics: the defensive design of the border trenches provided the Liao army with a favorable fighting position; they can concentrate forces counterattack the enemy army when they entered the trench.

5.1.2. Diversity of defense functions of border trenches

- (1) Preventing rebellions in the interior: the border trenches are not only barrier for external defense, but also curbed local forces within the borders and ensured central control over the localities;
- (2) Co-operative border town defense: the border trenches form a defense system with the surrounding ancient towns (such as Haotetaoai and Xisuomu ancient towns), and enhance the security of the region;
- (3) Dynamic defense strategy: Liao Dynasty adopted a defense mode combining border trenches and mobile cavalry, which make up for the limitations of fixed fortifications and achieve flexible defense.

5.2. Administrative control and economic development functions

5.2.1. Administrative functions of the border trenches

Border trenches are not only military facilities, but also reflect the administrative control of the Liao dynasty over the border:

- (1) Border demarcation: border trenches make the borders clear between Liao and nationalities such as the Shiwei and the Zubu, which helps to reduce border disputes;
- (2) Regional zoning governance: post stations and farming points have been set up within the demarcated area of the, which is convenient administrative management and resource allocation;
- (3) Symbolic role: as symbols of the regime's borders, border trenches enhanced the legitimacy and deterrence of Liao rule.

5.2.2. Relationship between border trenches and economic development

- (1) Promote agricultural development: many agricultural tools and granary remains of Liao Dynasty are found near the border trenches; it suggests that there were agricultural development activities on the inner side of the border trenches;
- (2) Promote the pastoral economy: the distribution of border trenches overlapped with the pastoral areas of the Liao Dynasty, playing a role in protecting the safety of herdsmen and livestock;
- (3) Trade route: the post stations set up along the border trenches not only served military transport, but also became important nodes for regional trade.

5.3. Symbols of cultural interaction and national integration

5.3.1. Material carriers of multi-national interaction

The border trenches are located in the area where different nationalities merge, and cultural remains of multiple ethnic nationalities such as Khitan, Nuchen, and Shiwei have been found around its site:

(1) The diversity of styles of pottery and daily necessities reflects the active cultural exchanges in the border areas;

(2) The various kinds of currencies unearthed at the remains shows the prosperity of border trade and multi-national economic ties.

5.3.2. The role of border trenches in national memory

Modern scholars of Mongolian history believe that the border trench may be a relic of the time of Genghis Khan (B. B. Baunosov 1991), although this view lacks archaeological evidence, reflects the importance of the border trench in the history narrative of multiple nationalities. It is possible to explore its evolution as a cultural symbol through the combination of national memory and the border trench.

5.3.3. Multicultural integration in border societies

The multicultural phenomenon in the border trench area shows that the Liao Dynasty border was not a region ruled by a single nationality, but rather a cultural crossroads where multiple nationalities coexisted and interacted:

(1) Military defense and cultural protection go hand in hand to form a unique border cultural landscape;

(2) Cross-cultural exchanges injected diversity into the art and architectural styles of the Liao Dynasty.

5.4. Historical significance of the border trenches

5.4.1. Epitome of Liao Dynasty ruling strategies

The border trenches reflected the comprehensive strategy of the Liao rulers in pursuing balance of military, administrative and economic in border governance.

5.4.2. Cornerstones of Border Stability

The existence of border trenches enhanced the security and stability of the border areas and laid the foundation for the political and economic prosperity of the Liao Dynasty.

5.4.3. Witness to cultural diversity

As an important part of the cultural heritage of the Liao Dynasty, the border trenches demonstrate the historical process of multi-national cultural intermingling and is of great significance to the study on regional culture.

6. Conclusion and Research Outlook

This paper explored the multifunctionality of Liao Dynasty border trenches and their historical significance through literature analysis, field survey and spatial analysis. The study shows that the border trench is not only a military defense installation, but also an important link for border governance, economic development and cultural integration in the Liao Dynasty.

However, the existing studies are still controversial on the division of history into periods and construction purpose of the border trenches, and the understanding of their function is relatively one-sided. Future research should strengthen the following aspects:

(1) More scientific and technological means (such as remote sensing and drone mapping) are introduced in field surveys to obtain more accurate data on border trenches;

(2) The roles of border trenches in ecological environment and cultural transmission are further explored through interdisciplinary collaboration;

(3) Combining an international perspective, the Liao Dynasty border trenches are compared with the defense installation of other regions in the same period and explore their uniqueness and universality.

The historical value and cultural significance of the Liao Dynasty border trenches will be more fully revealed through continuous research and exploration, providing new perspectives for understanding the historical development of China's northern borders.

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