

Research on the Defense System of Hulun Buir Ancient Border Trenches

Xiaozhen Chang

The National University of Mongolia, Ulaanbaatar, Mongolia

Abstract

Throughout the long history, the Hulun Buir area has been an important zone where the northern nomads and the Central Plains agricultural civilization intersected. Due to the complex frontier situation, the local nomads, with their remarkable military wisdom and indomitable spirit, built solid border trench defense lines on the vast land to resist foreign invaders. During the long-term defense process, it accelerated the exchange and integration among different ethnic groups. With the changes of the times, the role of the ancient border trenches in Hulun Buir has gradually weakened and lost its original military defense function, but the value of its historical and cultural traces has become increasingly prominent. Comprehensive analysis of its historical relics can help us understand the construction and operation of the ancient military defense system, draw wisdom from it, and provide useful inspiration for national defense construction, ethnic unity and cultural inheritance in modern society.

Keywords

Hulun Buir Ancient Border Trenches; Military Defense; Historical Culture.

1. The Historical Status of Hulun Buir Ancient Border Trenches

1.1. A Solid Barrier for Military Defense

In the ancient frontier areas, the Hulun Buir ancient border trenches, as an important defense facility, were constructed solidly and laid out ingeniously, fully demonstrating the excellent skills of ancient military engineering and playing a role in resisting foreign invasion. The construction of this project mainly originated from the complex and changeable political and military situation in the ancient frontier areas. In order to deal with the invasion of the northern nomads and ensure the safety of the Central Plains agriculture, the ancient ancestors fully considered the local geographical features and natural environment during the construction process[1-3]. After careful site selection and ingenious layout, a natural barrier was formed. The building materials used for the border trenches were solid and combined with the advanced military defense concepts at that time, which played a huge role in various wars. From large-scale invasions to small-scale disturbances, the Hulun Buir ancient border trenches, with their strong defense capabilities, ensured the security of the frontier areas.

1.2. An Important Carrier of History and Culture

The ancient relics of the Hulun Buir ancient border trenches standing in the long history witnessed the magnificent waves of ancient military struggles and carried rich historical and cultural information, telling us stories of the political situation, economic changes, military strategies and cultural blending in the ancient society. In-depth exploration of the ruins of the Hulun Buir ancient border trenches allows us to understand all aspects of the ancient society. During the inspection process, experts found the wreckage of some ancient weapons and daily necessities. The relevant relics can directly reflect the advanced level of ancient military equipment at that time, and the living conditions and economic development level of the ancient military and civilians can also be implied. In addition, the ancient city walls, beacon

towers and other defense facilities near the trenches are also physical materials for contemporary people to understand the ancient military strategies and defense systems. Here, we can see different cultural elements interwoven and developing together, which plays an important role in studying the diversity of ancient social culture and ethnic integration[4-5].

1.3. A Symbol of Ethnic Unity

In the long history, in the face of the invasion of the northern nomads in the Hulun Buir area, the various ethnic groups did not act independently but joined hands and formed a joint force to jointly build an impregnable border trench defense line. In the specific construction process, various ethnic groups discussed with each other and jointly shared the defense tasks, forming a deep friendship. This spirit of unity and common struggle successfully resisted the invasion of foreign enemies. During the long-term relationship, it accelerated the exchanges among various ethnic groups. The Hulun Buir ancient border trenches witnessed this historical process and also recorded the deep friendship and cooperative spirit among various ethnic groups. In the cause of ethnic unity in modern society, this spirit has valuable reference significance, telling us the meaning of unity and common struggle. We should also remember the historical significance of the Hulun Buir ancient border trenches and inherit and carry forward this spirit to contribute to the cause of ethnic unity in modern society.

2. The Military Strategic Value of Hulun Buir Ancient Border Trenches

2.1. Defense Against Foreign Invasion

From the selection of strategic locations to the construction of defense facilities, the Hulun Buir ancient border trenches fully demonstrated the wisdom of ancient strategists. In ancient times, military conflicts were prone to occur in the frontier areas, which were the frontiers of ethnic blending. Coupled with the invasion of the northern nomads, in order to ensure the security and stability of the frontier, the rulers at that time made full preparations in the early stage of building the Hulun Buir ancient border trenches. They fully considered multiple factors such as topography, climate conditions and military strategies[6-7]. By combining artificial facilities with natural barriers, an insurmountable defense system was formed. The ancients were also ingenious in building defense facilities, building towering city walls and solid border trenches, and setting up early warning systems such as beacon towers and watchtowers, which could detect the invasion of foreign enemies in the first place. Due to these ingenious defense means, the Hulun Buir ancient border trenches successfully resisted many foreign invasions, defended the security and stability of the frontier areas, and provided a solid barrier for the prosperity and development of the Central Plains agricultural civilization.

2.2. Control of Strategic Locations

The importance of the Hulun Buir ancient border trenches does not stop at military defense. It is a natural barrier that can effectively resist foreign invasion and ensure the stability of the border areas by controlling strategic locations. To some extent, the stability of the frontier areas is directly related to the country's economic development. The surrounding areas of the Hulun Buir ancient border trenches have unique advantages, with rich natural resources and strategic resources, such as fertile land, rich mineral resources and important transportation routes. The relevant resources can provide a material basis for the economic development of the frontier areas and also inject strong impetus into improving the overall strength of the ancient country. Based on the actual development situation, the rational development and utilization of relevant resources can enable the frontier areas to achieve internal circulation and gradually become an important pillar of the country's development. The existence of the Hulun Buir ancient border trenches also ensures that these precious resources are not plundered by foreign enemies and

guarantees the country's economic security and strategic interests[8-9]. It is a link connecting the frontier and the overall development of the country.

3. Comparison of Hulun Buir Ancient Border Trenches with Other Defense Systems

3.1. Comparison between Hulun Buir Ancient Border Trenches and Jin Dynasty Border Trenches

The border trenches of the Jin Dynasty, a key cultural relic protection unit in Hebei Province, are located in the grassland township in the northwest of Fengning County, Chengde City. The total length is 7.5 kilometers. It is a military defense project constructed in the northern border area during the Jin Dynasty. The trench is 5 meters deep and 4 meters wide. The width of the side wall along the trench is 3.6-4 meters, and the height is 1.7-2 meters. A horse face is set up every 250 meters, and the remains are clear. The "Jin Dynasty Border Trenches", mainly distributed in Inner Mongolia Autonomous Region, a small part in the Mongolian Republic and Russia, mostly runs from northeast to southwest, spanning about 2,500 kilometers, and the actual total length is more than 5,500 kilometers (including the superimposed part). The entire border trench is divided into the northern line and the southern line. The southern line is further divided into the first and second main lines. There are many similarities with the Hulun Buir ancient border trenches in terms of defense function, construction scale and historical background. They are both outstanding representatives of ancient frontier military defense projects in China. The Jin Dynasty Border Trenches stretch across the grassland with great momentum and large scale. The main components are trenches and city walls. The Hulun Buir ancient border trenches also use trenches and city walls as the main defense means to prevent foreign invasion and protect the frontier. In terms of military defense ideology and strategic layout, the Jin Dynasty Border Trenches and the Hulun Buir ancient border trenches have the same wonderful effect. (Table 1) They make full use of the terrain advantages and adopt the construction method of building according to the terrain and multiple barriers to form a strict defense system.

3.2. Comparison between Hulun Buir Ancient Border Trenches and Ancient City Defense Systems

In ancient urban defense, the ancient city defense system, as an important component, includes a series of complex defense facilities such as city walls, city gates, moats and barbican. It can protect the lives and property of urban residents and prevent foreign invasion. This defense system focuses on the overall defense capability of the city, emphasizing the firmness of the city walls and the defense of the city gates, and using natural barriers such as moats to increase the hierarchy and complexity of the defense system. Compared with it, the Hulun Buir ancient border trenches present a primitive and bold defense style. The ancient border trenches mainly rely on the local topography and terrain, using trenches and city walls as the main defense means to prevent the invasion of nomads and protect the security of the frontier areas. From the perspective of architectural style, the Hulun Buir ancient border trenches show more boldness of the grassland nation, and the architectural lines are simple and smooth, integrating with the natural landscape. Through comparative analysis, in terms of military defense system, the Hulun Buir ancient border trenches show unique value, are unique in defense means, and also show the unique ethnic customs and historical memory of the ancient frontier areas at the cultural level, providing physical materials for future generations to understand and study ancient military defense ideology, strategic layout and cultural value[10].

Table 1. Comparison between Hulun Buir Ancient Border Trenches and Jin Dynasty Border Trenches

Aspects	Hulunbuir ancient trench	Golden boundary trench	Similarities and differences
Geographical location	Located in Hulunbuir area	Across Inner Mongolia, Mongolia and other places	Both are located on China's northern frontier, but the Jinjiegao is much wider
Main structure	The moat was combined with the wall	Dig trenches and build walls, set up horse face, side fort, etc	The moat and wall were the main means of defense, but the structure of the Jinjie moat was more complex
Object of defense	Mainly defend against nomadic invasion	It also defended against foreign invaders, especially nomads	The defense object of the two is similar, which is to protect the border security
Functional Features	Relying on the terrain, form a defensive barrier	To dig trenches, supplemented by building walls, set up multiple defenses	Both of them reflect the military defense thought of the ancient frontier area, but the function of the Jinjie trench is more perfect
Cultural value	It contains rich national customs and historical memories	It is an important material for the study of ancient Great Wall construction and military activities	Both of them have important cultural values, but the cultural connotation of Jinjieshai is more extensive

3.3. Comparison between Hulun Buir Ancient Border Trenches and Modern Defense Systems

With the increasing improvement of China's scientific and technological level, compared with the ancient times, the modern defense system is different in defense means, technical means and operational concepts. From the traditional physical defense means such as city walls and trenches to today's informationized and intelligent defense systems, the modern defense system has achieved a qualitative leap. In the ancient military defense system, the Hulun Buir ancient border trenches, as a typical representative, rely on the topography and terrain for defense means, with trenches and city walls as the core to prevent the invasion of nomads. Although this defense system is primitive, it also contains the military wisdom of the ancient frontier areas[11-12]. The modern defense system pays more attention to the construction of informatization, intelligence and three-dimensionalization. Using advanced detection means such as radar and satellites, the modern defense system can realize real-time monitoring and early warning of potential threats. With high-tech weapons such as unmanned aircraft and missiles, the modern defense system can strike enemy targets quickly and accurately. Comparative analysis of the Hulun Buir ancient border trenches and the modern defense system. (Table 2) It can help us understand the military defense systems in different historical periods and provide reference for the construction of future military defense systems[13].

Table 2. Comparison between Hulun Buir Ancient Border Trenches and Modern Defense Systems

Aspects	Hulunbuir ancient trench	Modern defense system	Similarities and differences
Main structure	A moat, a wall, a fort	Radar, satellite, UAV, missile system, information network, etc	The Hulunbuir ancient trench is mainly based on physical structure, and the modern defense system is mainly based on high-tech equipment
Means of defense	Physical barrier to prevent enemy invasion	Information, intelligence, long-range strike, precise guidance, etc	The Hulunbuir ancient trench relied on physical structures for defense, while the modern defense system uses high-tech means to achieve multi-level defense
Concept of operation	Relying on the terrain, form a defense system	Information warfare, precision strike, three-dimensional defense, etc	The Hulunbuir ancient trench emphasizes the use of terrain and physical barriers, while the modern defense system focuses on information and intelligent operations
Coverage area	Limited territory, specific enemies	Globally, to deal with multiple security threats	The Hulunbuir trench covered a limited area, and the modern defense system has a global perspective and the ability to deal with multiple security threats

4. Conclusion

In the ancient military defense system, the Hulun Buir border trenches, as an outstanding representative, fully demonstrate the wisdom of the ancient ancestors in frontier defense and are a symbol of the unity of the Chinese nation. Through in-depth exploration of the Hulun Buir ancient border trenches, we can have a deeper understanding of its unique value at multiple levels such as military, cultural and ethnic. As a precious cultural heritage, the Hulun Buir border trenches should be actively protected and inherited to help more people understand this precious historical heritage and let the Hulun Buir ancient border trenches shine brightly in the new era.

References

[1] Hayasaka, H. "Recent Vegetation Fire Incidence in Russia." *Global Environmental Research* 15, no. 1 (2011): 5-13.

[2] Battur, S., E. Shiga, and S. Yoshinaka. "Saigai kaihukuki ni okeru Mongol koku yuboku keiei no henka: Chikushu kosei nohenka to sono yoin ni chakumoku site [The Changes Implemented by Mongolian Nomads in the Process of Recovering from the Winter Disaster 'Dzud 2000']." *The Frontiers of Agricultural Economics* 15, no. 1 (2010): 74-83.

[3] Japan Aerospace Exploration Agency (JAXA). "Air Pollutants across Borders Observed from Space, Seen from Space 2014." In *Earth Observation Research Center (EORC). Space Technology Directorare I*, 2014.

- [4] Dornod Aimgiin Ulsyn Burtgeliin Heltes. "Onlain Lavlagaany System [Online Reference System]." Accessed October 3, 2016. http://ubh.dd.gov.mn/?page_id=691.
- [5] Khatanzorig, A. "Mongolia and Russia Discuss Forest Fire Prevention Issues." Montsame, October 17, 2017. <https://www.montsame.mn/jp/read/131933>.
- [6] Ikeda, K., and H. Tanimoto. "Exceedances of Air Quality Standard Level of PM 2.5 in Japan Caused by Siberian Wildfires." *Environmental Research Letters* 10, no. 10 (2015): 1–9. doi:10.1088/1748-9326/10/10/105001.
- [7] Japan Aerospace Exploration Agency (JAXA). "Visualization of California Wildfires by Earth Observatory Satellites, Seen from Space 2020." In Earth Observation Research Center (EORC). Space Technology Directorate I, 2020.
- [8] Goldammer, J. G., I. Mitsopoulos, B. Oyunsanaa, and P. Sheldon. "Huduu oron nutgiin irged, nutgiin udirldaguudad zuriulsan Oi, heeriin tuimrees uridchilan sergiileh hamgaalah garyn avlaga [Forest and Steppe Fire Prevention and Protection Guide for Rural Residents and Local Authorities]." Global Fire Monitoring Center. Accessed June 28, 2021.
- [9] Enkhtsolmon, G. "Gamshgaas hamgaalah, gal tuimriin ayuulaas uridchilan sergiileh arga hemjee [How to Prevent Disaster and Fire]." NEMA [Niisleliin Ontsgoi Baidlyn Gazar]. We visited the NEMA office to be given this electric file as an internal document, 2016.
- [10] Li, Y., J. Zhao, X. Guo, Z. Zhang, G. Tan, and J. Yang. "The Influence of Land Use on the Grassland Fire Occurrence in the Northeastern Inner Mongolia Autonomous Region, China." *Sensors* 437 (2017): 1–19.
- [11] Bayan-Uul District. "Statistics of Bayan-Uul District. (We Visited the Bayan-Uul District Government Office to Read These Statistics as Their Internal Document)." 2015.
- [12] Nasanbat, E., and L. Ochirkhuyag. "Wild Fire Risk Map in the Eastern Steppe of Mongolia Using Spatial Multi-Criteria Analysis." *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, Volume XLI-B1, 2016 XXIII ISPRS Congress, 12–19 July 2016, Prague, Czech Republic (2016): 469–473.
- [13] Liu, M., J. Zhao, X. Guo, Z. Zhang, G. Tan, and J. Yang. "Study on Climate and Grassland Fire in HulunBuir, Inner Mongolia Autonomous Region, China." *Sensors* 616 (2017): 17(3).