

Koguryo Traditions in the Primorye's Mediaeval Town-Planning

1. Problem review.

As we know from written sources, the history of mediaeval ethnic groups at the Korean peninsula is intertwined with the history of Tungus-Manchurian tribes from Russian Primorye (officially, Primorski Krai or Maritime province). This fact owes to the geographical proximity as well as military-political situation in the mediaeval Far East. Mohe tribes possessed forceful cavalry, and habitually supported the Koguryo people against China. We can find an evidence in the Chinese chronicles: "...in 645 AD Chinese troops fought with the Gaoli. The Mohe took the Gaoli side while the Turki were on the Chinese side... The Mohe brought 50 thousand warriors..." (Bichurin 1950).

The state of Bohai (698-926 AD) was polyethnic. In addition to the core ethnic group of Sumo Mohe, Bohai citizenship included the Paleoasians, Koguryo, Chinese, and more. Particularly large influx of the Koguryo people took place after the downfall of Koguryo state.

The Jurzhen, especially those from northeastern part of the Korean peninsula, were another group who kept friendly ties with the mediaeval Korean tribes. However, scarcity of written sources prevents a full reconstruction of the mediaeval history in the Far East to be made. To overcome this obstacle we need archaeological data containing evidences of cultural, political, and military contacts among the mediaeval Tungus-Manchurians and Koguryos. Of particular importance are fortifications built by those ethnic groups. This subject has remained underdeveloped in the Far Eastern archaeology. Materials that represent fortification structures are not categorized, having been published randomly and without any correlative or comparative analysis. This paper is the author's attempt to analyze the

mountain type of mediaeval fortified sites which occur in Primorye and are known to be built by Tungus-Manchurian ethnic population including the Mohe, Bohai, and Jurzhen peoples. The author is also going to specify some peculiarities in fortifications to be compared with the Koguryo's fortified mountain sites. So far we are aware of 40 fortified mountain town sites in Primorye, and 176 in China and Korea.

2. Mediaeval Tungus-Manchu fortified mountain town sites in Primorye.

There are two types of the mediaeval fortified mountain sites in Primorye: stonework fortresses atop isolated hills, and town sites on mountain spurs. Stone fortresses were built by the Mohe and Bohai (698-926 AD), while the Jurzhen people of East Xia (1217-1234) built towns on the spurs.

Stonework fortresses on isolated hills are located on the tops of separately standing hills, often rock outcrops, and are built of stones without cementing. Positioned so as to dominate local landscapes, such fortifications permit a good view of neighboring valleys and obviously must have served strategic purposes. As a rule, an appropriate hill overlooks a river or is not far from one. Hillsides are stony, so every step on them produces loud sounds heard far away. It was virtually impossible to approach a fortress so located without being heard or seen before long. Today we know ten stonework fortresses in Primorye, six of them are located in central Sikhote-Alin mountain range and on East Sea's (Sea of Japan's) eastern and northeastern coasts: Shmyrkov Klutch, Zabolotnoye (Altar) in Serebryanka river basin, Klutchi (Dzhigitovka river basin), Vaskovskoye (Rudnaya river basin), Seselevskoye (Zhivopisnaya river basin), Yashu. The rest of the Primorye's fortresses are yet to be investigated.

Stonework fortresses can be divided by wall configuration in two variants:

1. Closed (Zabolotnoye, Klutchi, Shmyrkov Klutch).
2. C-shaped (Vaskovskoye).

Planigraphy of stone fortresses is simple. The builders used flattened areas and adjacent surfaces found on suitable hills.

Fortifications consist of round or serpentine stonework walls encircling a hill.

Constructing technologies are interesting for the presence of persistent technical patterns and ultimate skill. Building stone was usually procured on the locality. Durability of walls highly depended on methods of stone processing. Prior to raising of wall, builders would flatten an underlying surface. The width of a stripe to be flattened was up to 2-6 m. It was to be covered with a layer of big stones, specially processed – each piece of stone had a raised border on its edge so that an overlying stone would not slip. Stones in the upper layers are pyramidal in shape. The higher the layer, the smaller the stones. It seems that the size of stones was standardized for each layer. The shape of the stones has some notable particularities — each stone was rectangular in the base, had rounded corners in the middle, and was tapered at the top. The lowest part of a wall on the inside had the shape of staircase.

Stone layers in the walls have horizontal and vertical seams. Vertical seams do not meet in adjacent layers, what added to the wall's strength. The walls stand upright or slightly sloping. Sloping angle depends on the steepness of a hill. In case of a wall standing on a flat surface the tilting angle is 80-85 degree. If a hill slopes steeply, the angle is up to 75 degree. The height of the walls varies from 1 to 6-7.5 m (at Smyrkov Klutch). The entrance part of a stone fortress is simplistic, in the form of a break 2-5 m long. Specific feature of a stonework fortress is a number of “sockets”, or stone-layered pits. Those seem to have served shooters' places.

To sum up, the stonework mountain fortresses can be characterized by the following features: placement in strategically important localities atop dominating heights; the use of local building material; lack of cementing; standardized stone shapes and sizes of certain wall parts; staircase-shaped

inner wall configuration; absence of continuous vertical seams; artificial flattening of hill surface before construction. According to collected data, stonework fortresses were built during the Mohe and Bohai times.

By choice of location, constructing methods, and purposes, stone fortresses of Primorye derive from fortification traditions of Koguryo fortresses, often being virtually identical with those. Perhaps this tradition of arranging a fortified site was adopted by the Mohe and Bohai not before 7th century AD, i.e. after the downfall of Koguryo state and Koguryo people having become the Bohai citizens.

Fortified town sites on mountain spurs can be considered a distinctive type of fortifications that are located on dominating heights and thus permit to control the neighboring area and means of access to it. Defense seems to have been an obvious reason to build this type of sites. There are 26 fortified mountain towns built by Jurzhen citizens from East Xia State (1217-1234) in Primorye – Krasnoyarskoye, Smolyaninovskoye, Skalistoye, Shaiginskoye, Lazovskoye, Novonezhinskoye, Ekaterinovskoye, Urkovskoye, Koksharovskoye-Gornoye, Plahotnukinskoye, Konstantinovskoye, Novogordevskoye, Novopokrovskoye, Orlovskoye, Stogovskoye, Ananjevskoye, Izvestkovoye, Shklyayevskoye, Gornohutorskoye, Dubovaya Sopka, Scherbakovskoye, Kishinevskoye, Steklyanuha-3, Sibaigou, Kunaleiskoye, Sopka Lubvi.

Mountain town sites were planned in accordance with strict, unvarying rules. Towns of this type are actually clones, show no signs of temporal change, and the latter fact speaks for their short period of existence.

Geomorphology. Mountain towns are always built on mountain spurs in water-supplying ravines usually containing a creek with water flowing to a larger stream, pure and cold. The towns are close to the lower reaches of main rivers though never in estuaries. The preeminent criteria for the builders were the presence of a steep hillside overlooking a valley, and a large river. Everything was to make those sites to be crucial points on roads and

waterways. Geographical specifications of the loci of mountain town sites with unclosed (C-shaped) wall corresponds with the sites' purpose, i.e. military and administrative functionality, as well as type of economy. Apparently water and fenced flood-lands were necessary to maintain a large number of horses.

On three sides the towns are surrounded by high mountains or precipitous rocks, and only the southern sides are gentler sloping. Defense walls run atop ridges, beginning at the mountains' crests. The entrances to towns are in the lowest parts of ravines.

Planigraphy of mountain fortified towns is always the same, and entirely fits the landscape. Town area is bordered by the defensive wall and divided in three parts: redoubt, forbidden city (or several ones), dwelling zone.

Dwelling zone always occupies a ravine. Artificial terraces, varying in height (eight to one meters, depending on steepness hillside), were purposely constructed to place dwelling sites on. The terraces' building mode is the same in all cases: 1) cutting in the hillside and flattening of surface; 2) padding the layer filled with burned loam and serving as a foundation; 3) tabular earth filling containing alternating viscous and friable ground. Terraces vary in size, some just fit for one dwelling, others for several more. Dwellings are standard, with II-shaped and L-shaped *kan* system. Dwelling zone was presumably inhabited by the garrison.

Forbidden city could be a single unit or there could be several ones. It is characterized by the following features: heightened placement near the ridge, rectangular mound along the borders, constructing mode similar to that of terraces and walls, colonnade buildings inside oriented in four cardinal directions. Forbidden city served as administrative center.

Redoubt possesses the following particularities: square mounded borders, side length measuring 19-20 m, orientation in four cardinal directions, two or three dwellings with *kans*, gate in the form of break in the wall 2-3 m long

with overlooking watch-platform, tabular earthen wall-mound. Redoubt served as military headquarters.

Water reservoirs. Apart from a spring or creek flowing down a ravine and often accompanied by artificial drainage system including stonework dams, etc., on the town sites we found artificial ponds, wells, and ditches that permitted the inhabitants to withstand sieges without water shortages.

Fortifications. Jurzhen mountain town sites are distinctive in the method of constructing the wall mounds. All towns have earthen walls raised with the use of *Hantu* technique, i.e. in the form of tabular mounds stretching along the spur ridges, sometimes reinforced with the laying of stones on the top. To build a wall it was customary to benefit from advantages given by mountainous topography. A hillside could be natural extension of a wall on the outside. At the most threatened side the wall-mounds reached eight meters in height, having been built in accordance with a stable constructing mode: a platform covered with clay and stones, otherwise alternating layers of viscous and friable soils, would be cut into a hillside chosen to support the wall. Lower part of the wall was shaped as a staircase. The base of the wall could be rather wide, sometimes up to 20 m. As walls go along ridges, wall shapes mimic the shapes of the ridges including bends. This circumstance caused difficulties in the making of corners, especially northern ones. At the points where walls meet there are towers or watch-posts. Towers also occur in those parts of the walls that could be regarded as most threatened places. There also are platforms for stone-throwing machines, shell depots, guardhouses, embrasures. Auxiliary fortifications were built beside gates. One example is additional wall at the gate, as we can see at Kunaleiskoye town site, another example is an area with mounded borders, roughly triangular on Sibaigou site, or roughly quadrangle on Plahotnukinskoye and Shaiginskoye sites. Such constructions helped to defend from militant intruders.

Russian pre-communist researchers noted some connections between fortresses and fortified towns with dwelling sites located in valleys. In cases

when the latter became invaded, the former served asylums. We actually found some evidence in favor of this point of view.

To sum up, fortified mountain towns belonging to the Jurzhen people of East Xia State (1217-1234 AD) were built in accordance with a strict, rather advanced method, what can be seen in the following aspects: choice of the locality (on mountain spurs with water-supplying sources), zonal planning (forbidden city, redoubt, living quarters), water-holding constructions, presence of earthen wall-mounds made by Hantu technique, staircase-shaped lower part of inner wall sides, particular pattern of supplementary fortifications on the wall (towers, stone-throwing platforms, watch-posts), functionality.

3. Koguryo traditions in mediaeval town-planning in Primorye.

Of 176 Koguryo town sites found in northeastern China and North Korea only 56 have been researched. Among them there are 47 stonework fortresses and only 9 earthen ones (Sokson, Ensonja, Thapsan, Koi, Puksansondja, Rendam, Sariho, Mokki, Hongenno in Manchuria and Anhak in North Korea). The author have already published her study of links between mediaeval stone fortresses of Russian Primorye and Koguryo, thus no point in elaborating on this here. We must remember though that construction technology used in northeastern Primorye to build stone fortresses (Shmyrkov Klutch, Zabolotnaya , Klutchi, Vaskovskoe Ozero) obviously reproduces the Koguryo technology and actually derives from the latter (Dyakova 2005). All the more so because ceramic materials from the above mentioned Primorye's fortresses are comparable with the Mohe and Bohai traditions, contemporaneous with the Koguryo culture. It is known that military and technical innovations spread fast enough.

Koguryo's fortified earthen mountain towns, as opposed to stone fortresses, are scarcely explored for various reasons. For a long time Korean, Chinese, and Russian scholars worked separately in their own countries. Today we

have got an opportunity to analyze and compare the results relevant to the problem of genesis and development of mediaeval fortifications in the Far East.

Geophysical parameters of Russian Primorye, northeastern Korea and northeastern China are similar enough, and this fact should have in similar way influenced the process of choosing a location by inhabitants of these territories when it came to building a fortified site. The choice would be dictated by landscape. The Koguryo people as well as the Jurzhen from East Xia preferred a steep mountainous topography and presence of large river. Korean written sources state that, as a rule, the Koguryo placed their mountain towns on hilltops facing the lowlands. "...Outside the fortresses they raised earthen bulwarks to prevent the use of ladders and visibility of actions inside the fortress... Even if enemies fiercely attacked, their hike from the base of the hill to the fortress exhausted them, they breathed interruptedly, their ardor died away, while our soldiers remained calm, inspired and ready to fight against intruders by letting big boulders roll down the hill – enemies fell right on the run" (Kim Gi Un).

Kim Gi Un wrote that the Koguryo mountain towns were always found in the presence of water source. Water not only provided means of transportation, but served as a natural border helping to control an enemy's movement and limiting the latter's maneuverability (Nosov 2001).

To build mountain towns, the Koguryo chose places near the valleys inhabited by people who could supply human force as well as food, yet find shelter in the fortress in dangerous situations. Such pattern is comparable to the Jurzhen of East Xia's.

An unconditional rule for the Koguryo to choose a place to build a town was the presence of convenient means of transportation, i.e. waterways and roads, permitting both maneuverability and communicability with neighboring fortresses. The Jurzhen obeyed the same rule, as we noted before.

All of the Koguryo's mountain towns were crossed by rivers or streams, otherwise had ponds and wells. For example, according to ancient scripts, the Koguryo town of Taeson had 99 ponds plus a brook. The East Xia's Jurzhen provided themselves with water the similar way.

To ensure the combatant value of their towns the Koguryo paid ultimate attention to reinforcement of fortress walls, the basic fortification element. Like the Jurzhen, the Koguryo builders erected watch posts and towers over gates. Near a gate the fortress' wall was usually duplex, while in front of the gate there was a protective wall with embrasures at sides, known as "chokte". Watch posts, as a rule, helped to strengthen wall corners and served as command posts. Similar constructions are typical for mountain towns of Jurzhen too. With Koguryo fortresses, an important defensive role played embrasures placed so as to permit shooting at an enemy directly or from sides. Before the invention of embrasure it was impossible to shoot at the troops which had made their way right under the walls.

Korean scholars believe embrasures to be a Koguryo's invention while protective walls, gates in the wall without tower, defensive lines, and double walls to be distinctive features of Koguryo mountain fortresses.

Having analyzed Primorye's mountain towns belonging to the Jurzhen of East Xia and Koguryo's mountain fortifications, we come to the conclusion that the influence of Koguryo's fortifications on the development of Jurzhen type of mountain towns was an immense one. To say the least, the Jurzhen people did adopt Koguryo's principles of placement of fortresses in mountainous landscape. Those principles include the following: protection by hills on three sides, while on one side, usually southern, the presence of water-containing ravine; methods of obtaining and keeping fresh water; distribution of fortification elements (on the wall, at gates, by corners). At the same time Jurzhen's mountain towns retained some Chinese fortification traditions, *Hantu* earthen wall-mounds in the first place. It is known that from the ancient times Chinese towns were surrounded with earthen walls where

the filling soil was put in layers, each layer being rammed by special wooden rollers. As a result, the walls became very firm and reached eight meters in height. This method have been known in China since 4th century BC, and since 6th century BC the Chinese have used stone lining of curtain-walls and built the towers (Mangi Eram).

Apparently the Koguryo adopted the method of erecting earthen walls from the Chinese as early as in antiquity, but further adapted it to mountainous environment. On the other hand, by geomorphology as well as fortification and constructing technologies the stonework mountain fortresses built by the Mohe and Bohai peoples correspond well with Koguryo traditions and appear to be derived from the latter.

Thus we are to conclude that in Primorye the two types of mountain fortified sites built by mediaeval Tungus-Manchurians – the Mohe, Bohai, and Jurzhen peoples – obviously meet the requirements typical of Koguryo's town-building traditions, having been, as it seems, founded on the latter.

References Cited

Bichurin, N. Ya. (1950). *Sobranie svedenij o narodah, obitavshih v Srednei Azii v drevnie vremena* (Collection of Data on Peoples Who Inhabited Central Asia in ancient Times), vol. 2. Moscow-Leningrad, p. 69.

Dyakova O. V. (2005). *Gorodischa i kreposti Dalnego Vostoka (severovostochnoye Primorye)* (Ancient Town Sites and Fortresses of Far East (Northeastern Primorye)). Vladivostok, p. 171.

Kim Ghi Un. *Research of Particularities of Koguryo Mountain Towns*, p. 138-152. Separately printed copy. Similar characterization of Koguryo

towns was offered by Prof. Nam Il Ren, University Kim Il Sung, at Second International Conference on Korean Studies in 2005.

Mangi Eram. Cited after Kim Ghi Un.

Nosov K. S. (2001). Zamki i kreposti Indii, Kitaya i Japonii (Castles and Fortresses of China and Japan). Rejttarj, Moscow, p. 27.