ANCIENT CHINESE MAPS

Two maps discovered in a Han Dynasty tomb from the second century B.C.

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Among the many important excavations carried out in recent years in the People's Republic of China three tombs deserve special studies. They were discovered 5 km. east of Ch'ang-sha in Ma-shan-tui in the province of Hunan. Best known in the West is tomb No. I excavated in 1971, because it contained the well preserved body of a lady and a wealth of textiles, including a painting on silk—the so-called "Guide of the Soul Banner"—lacquer objects, pottery wares, wooden figurines, baskets with food and so forth. The other two very close to it were excavated in 1973/74. Unfortunately, the first of the two (tomb No. II) was in a poor state of preservation, containing only some imperishable materials such as lacquer objects, pottery wares, and some figurines, and, even more important, some seals proving beyond doubt that this was the tomb of Li Tsang, Marquis of Tai, who had been appointed Prime Minister by the king of Ch'ang-sha in 193 B.C. and who had died in 186 B.C. Tomb III was that of his son, who had died in 168 B.C. The available evidence proves that tomb No. I was that of his wife who must have died not long after her son's death.

Although water had seeped into tomb No. III it still contained materials of even greater importance to posterity than those found in that of his mother, although nothing remained of his body except a few bones which allow us to draw the conclusion that the master of the tomb had died in his early thirties. In addition to materials resembling those found in his mother's tomb, such as lacquer wares and pottery, a "Guide of the Soul Banner" (textiles mostly disintegrated), wooden figures and food, it also contained typical made objects such as a man's hat, a stand for arrows and a variety of weapons. Most surprising was the discovery of pictures of processions and cavalry painted on silk which had been covering the walls of the outer coffin (coffin chamber). In recent years, books, or sections of books, written on bamboo slips or wooden boards have been discovered in other Western Han tombs, yet in number and importance none surpass those found in tomb No. III. Some were written on bamboo slips, some on wooden boards, and some on silk. All of them provide material for a wide range of studies, especially those texts presumed lost since early times. These writings cover wide fields from Taoist Legalist philosophy, astrology, divinations and medicine to the evaluation of horses and other subjects. It is to be hoped that this new material will be used not only by scholars in China but also by Western scholars. For all those interested in calligraphy and dating, a study of the script of that time will be especially important because it reflects the transition from the ancient seal script to the "I" script which was introduced by Ch'in Shih Huang-ti shortly before the establishment of the Han dynasty.

Among the most important finds in tomb No. II were two maps which are the earliest maps found in China and perhaps the earliest in the world. Their greatest significance lies in the fact that they are in part surprisingly accurate and detailed and show that the art of cartography was well advanced at this time. Although the use of maps is mentioned in Chinese ancient literature long before the beginning of the Han period, the question when maps were first made in China has not yet been solved. Some writers in the West believe it to have started in the 3rd century B.C. This is, however, much too late; there are references to the use of maps in the literature of the 7th and 8th centuries B.C. For instance, in the Book of Documents (Shu-ching) it is reported that a survey of a particular region had been made to decide on the most suitable place for a new capital. Also, the Kuan-tzu contains fragments of a chapter on maps illustrating their importance for the conduct of war. Strategists, Sun Tzu in his "Art of War" and others, repeat again and again that maps containing information on rivers, roads, mountains, hills, forests, passes and populations are vital for warfare. Sun Tzu's remarks that the measurement of space has to be derived from the ground suggests that the design of maps depended on actual surveys of
There is ample evidence that, at least towards the end of the Zhou period, maps were prepared for administrative purposes. In the Chinese geography, part of cartography is mentioned. It apparently contained maps of the entire country with information on the situation and size of kingdoms, population (tribes living in certain areas), products, grains, metals, trade, trees and so forth. Even some maps of countries bordering China are mentioned. The production of maps containing so many different types of information presupposes the existence of well-defined and standardized types of legends. The importance attached to maps is well demonstrated in a story in the Shih-chi. After the conquest of Hsin-yang, the capital of the former Ch'in dynasty, Hsiao Ho, a companion of the later first emperor of the Han dynasty, went to the storehouse and, disregarding other objects of loot, gathered all the maps and official records that had belonged to the Ch'in ministers and stored them away. They contained data on strategic points of defense, population, relative strength of the various districts and theills and grievances of the people-information of great value to the future emperor.

All these maps have been lost. Thus the two maps found in tomb III in Ma-wang-tu provide us with the first examples of the art of cartography of the beginning of the 2nd century B.C. Both maps were painted on silk and both were found folded up in a lacquer box. Having been buried for over two thousand years, the folded sections were so firmly stuck together as to make the separation a difficult and hazardous task.

The unfolding of map I caused it to fall into pieces, some sections were severely damaged, especially the edges had suffered from the seepage of water and some parts of its design were almost completely obliterated. The folding of the map followed a definite system shown in Fig. S. First, it was folded over in half, the lower part covering the upper, then it was folded again and again in half. Later, the folding proceeded from left to right. After reassembling, the map measured 96 x 96 cm. In both maps, in conformity with Chinese ancient cosmological views, south is above and north below. This is based on the orbit of the sun which reaches its highest point at the time of the summer solstice in the southern part of the sky. It was believed to travel in the subterranean region during the night, reaching its most northerly point at the time of the winter solstice. Thus, on the west the maps is on the left side and west on the right. In order to identify features on this map with those on modern maps, it is advisable to turn them upside down.

Map I is chiefly a topographical map covering the southern part of what is now the province of Honan and part of the adjoining Kwangsi and Kiangsi Autonomous Region and of the province of Kwantung. It reaches as far south as the South China Sea (the dark half-circle in the upper part of the map). In modern terms the map covers the area of longitude 110°-112°0' and latitude 26°-28°.

There is no scale but according to a modern estimate it is between 1:170,000 and 1:250,000. On modern maps, the area covered extends from a little east of Hsin-tien county to a little west of Chuan-chou county all the way south to just below the Hsi-lou (West River). The accuracy of the map differs; it is excellent in all parts which formerly belonged to the kingdom of Chu and was in the province of Hanan including some adjoining districts now enclosed in Kwangsi and Kwantung. This suggests that it was made from on-the-spot surveys. The uppermost section of the map, that is the most southerly part, belonged, at that time, to the kingdom of Nan Yueh. It was certainly much less known to the cartographers of the king of Ch'ang-sha who had prepared the map. This explains why it is out of proportion and contains much less information. Nan Yueh at that time was ruled by Chu Ch'ao, who had been appointed previously by the son of Ch'in Shih Huang-ti as military commander of that region. After the collapse of the Ch'in dynasty, he made himself independent as king of Nan Yueh.

The information on the map includes topographical features and a wealth of names of counties, mountains, rivers, residential areas and so forth. The legends are standardized. Thus, the names of counties are placed in squares, residential names in circles, names of tributary rivers are written near their confluence with larger rivers, and so on. The ancient names of counties are no longer in use today. Fortunately the chapter on geography in the Hsin Han-shu and other contemporary literature allow us to identify some counties with modern districts such as Tao-hsien, Lan-shan, Hsin-Pien, Ning-yuan (now in Honan province), Ch'ian-chou and Kuan-yang (now in Kwangsi) and Lien-haien
Ch'ang-sha. (The Empress Dowager) sent the Marquis of Lung-shu (Chou Tsao) with troops to attack the invader.

The help in the Shih-chih contains more information on this war. Apparently, the troops sent out by the empress never reached Ch'ang-sha because of the difficulties of the terrain and excessive heat. That means that the king of Ch'ang-sha had to organize the defense of his country from the troops sent in aid. In 100 B.C., the emperor of Hsia River had sent as ambassador by the first emperor of the Han Dynasty to Chou T'o, the king of Nang, and had been able to persuade the Hsia-dynasty king to give up his independence, at least nominally, and become a vassal of the Han emperor. However, after the death of Kao t'ai, Chou T'o again asserted his independence, calling himself emperor of Nang Yieh, and tried to extend his domination even to neighboring countries. When Empress T'o interfered with trade with Nan Yieh he interpreted that as a hostile act and invaded his country.

In map II we are given a clear and detailed picture of the organization for the defense of Ch'ang-sha. This map was found folded into 26 sections in much the same manner as the map of the territory of Hsia River. The size of the reconstructed map is 92 x 78 cm. The area shown is a section of map I. Its scale is about double that of map I and it follows the well-established type of the four directions with south above and north below. Colors are used on this map, according to the conventions of the period, on the upper part of the map and read from Chou-fung. In fact, when the map is rotated 90° to the right, the line between black and red is the River's painted blue.

On the top of map II is a line drawing of the Ding-sung and the T'ai-p'ing-lung mountain ranges. There are slight differences in the use of coloring between the two maps. Although many lines are still used for mountain ranges, they are now single lines and each mountain top is adorned with fish-scale-like clover motifs and separated by rows of dots. The art of the Warring States and early Han time. In the valley on the map, lines are depicted in a way which suggests that there are mountains. Eight names of mountains are inscribed next to peaks. On this map, about 20 rivers are shown in blue color and some names have been added to 13 names. Again, the most important one is the Hsiao River, formerly called Shen. On this map, as on map I, the winding of the rivers is shown fairly accurately; they are a considerable help in the identification of localities on modern maps.

The large rectangle with indented corners represents the Hsiao River watershed. Within this area are eight small, irregular rectangles outlined in red and black. All of them represent encampments of the army; their sizes vary in accordance with the importance and the number of troops stationed in them.

The inscription inside each camp gives the name of the commanding officer and his title. For example, in camps Nos. 1, 2, 3, 4, the inscription reads Hsia T'ai-fen chih. "Army of Chief Commander Han Yen." The camps on the border (Nos. 1, 2, 3) were certainly the most important ones because the enemy was most likely to attack from the south. They are thus the first line of defense. It may likewise be of importance that Nos. 1, 2 and 3 correspond to the three main ramps on the Sun-tzu kuan, Kung-yang kuan and Pai-shih kuan.

The other important line of defense is represented in encampments Nos. 5, 6, and those of which are ruler of Chou (Chou T'ai-shih), and thus forms the border of the eastern border, Nos. 7 and 8, of which are ruler of the king of Hoo. The large number of encampments on the map points to a possible enemy from the east, the border region with Kwoang, the triangle in the middle of the defense of the Shih-chih valley.

Written on the top of map II on the right side is Nan "South," and on the left Tang "East." This seems to follow the well-established type of the four directions with south above and north below. Colors are used on this map, according to the conventions of the period, on the upper part of the map and read from Chou-fung. In fact, when the map is rotated 90° to the right, the line between black and red is the River's painted blue.

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however, on the western side, which was not endangered. Close below the one on the northern side is a small square described as cheng (No. 23), which in this case must mean a special area used by the army. It may have contained barracks; a similar area (No. 23) adjoins the enclosure of Su-nan TC. This may mean that these were places reserved for the army even before the on-going war.

According to their importance for the army, residential places are shown either in red and black, or in thin red or black circles. Their number shows that this area must once have been quite a populated region. Inscriptions not only give the names of the places but they also tell us about the tragic consequences of war. Next to the name of some places we read "25 families, all moved away." "25 families all moved out and none came back" or even "100 families, none back," or often just two characters "now nobody."

The frequency of such inscriptions shows that at the time of the war the civilian population had nearly all left. In some cases the distance between two places is given, information certainly of importance to armies.

The map shows that the organization of the defense was based on an excellent and well thought-out plan. The fact that weapons and these two maps were found in the tomb of the young Marquis of Tai indicates that he had been a soldier and, most probably, had taken part in this campaign. The war started about 12/13 years before his death but in the course of fighting he might have been appointed to a high position, perhaps above the commanders mentioned on the map, or it is even possible that the drawing up and organization of the defense was his work. All this would be ample reason for placing the maps in his tomb as signs of his merit, his superior qualities.

Notes
1. Literature in English on tomb No. 1 of Ma-wang-tui, e.g., Fong Chao, "Ma-wang-tui, a Treasure Trove from the Western Han Period," Journal of Asian Art, 37(2), 1975, pp. 124-144; "How the Ancient Chinese Buried a Matron of Mien", National Geographic 146, May 1974, pp. 665-681; Dr. A. Burkitt, The Guide of the Seals Picture in the Western Han Tomb at Ma-wang-tui near Ch’ang-shu, Oriental Art, New Series No. 2, Summer 1974, p. 158-172. In Chinese journals a great number of articles have been published dealing with various aspects of this tomb. Some of the most important of such articles are: Comments on tomb No. 1 have been published in China in two volumes, Ch’ang-shu Ma-wang-tui lin hao Han mu, with numerous pictures in color and many drawings; the text volume contains research and information on the tomb and its objects.

2. Except for one article in Chinese Picture of No. 1, 1974 on tomb No. II and III and one article in Chinese Picture of No. 9, 1974, about map I, "A Summary of some recent Wenwu and Kunlin articles on Ma-wangtui tombs Two and Three" by Jeffrey K. Biegel was published in Early China No. 3, Fall 1977, pp. 20-24. All other articles dealing with these two tombs are published in Chinese journals such as Wenwu, Kunlin, and Kunhi xuexiao. However, an all inclusive report on these two tombs is being prepared in China.


This report is based primarily on articles published in Wen-wu No. 1, 1973, "Report on the ancient maps found in the Han tomb No. 11 in Ma-wang-tui, Ch’ang-shu, by the Study group for Han silk manuscripts from Ma-wang-tui," pp. 35-42; and "A map of more than 2000 years ago" by the Geographical Department of Fu-tan University, "Pan Ch’in-shan, pp. 43-45, and Wen-wu No. 1, 1974, "Some information on the ancient maps in Ma-wang-tui tomb and some seals of the Han period" by Chou Shih-yung, pp. 21-30; "Notes on the Military map found in the Han tomb No. 3 of Ma-wang-tui" by T’ao T’ien-liu, pp. 24-35.


