

# Tea, Fierce-Fire Oil and Maps: Northeastern China during the Tang-Song Transition

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## Introduction

During the late Tang 唐 (618–907), the political landscape of disparate military governorship eventually led to national division. Before the appearance of the next dynasty of “Great Unification”, namely, the Song 宋 (960–1279), regional political powers, and not a national authority, dominated the political arena.

Looked at in terms of this historical reality, the present research attempts to discuss political and economic communication among different regimes of the time, with a special focus on the relationship between the Khitan Liao 契丹 遼 (907–1125), the Wu-Yue 吳越 (907–978), and the Southern Tang 南唐 (937–975), in order to reveal the structure of the cultural exchange and communications of goods that took place along the entire northeastern borders of China at the time. Three areas will be examined in particular, the commercial exchanges involved with tea, the spread of military technology (fierce-fire oil, or wild-fire oil, a kind of petroleum), and the politics of maps.

## The “Tea Route” between Liao and Southern Tang and Its Ports of Departure

### Tea Traveling North

Figure 1 shows a mural found in a tomb of a Han-ethnicity squire named Zhang Kuangzheng 張匡正 (born 984), who lived in the Liao Empire. It depicts a scene of five servants preparing for tea drinking. This painting is just one out of many such murals related to tea-drinking.<sup>1</sup> Since Zhang was born in the year of 984, he lived during the middle period of Liao. Such a complex and orderly tea preparation process as recorded in the mural clearly indicates that

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1 Zheng Shaozong 1975; Tao Zongye, Liu Zhongyu, and Zhao Xin 1990, 2ff.

tea consumption was already a prevailing life style of the time. And of course, the custom of tea drinking was imported by Chinese immigrants from the south, the original focus of China's tea plantations.



Fig. 1 Preparing Tea<sup>2</sup>

The Zhang Kuangzheng mural not only suggests that tea drinking was popular during the eleventh century, but the degree of sophistication expressed suggests that tea drinking must have been introduced to the north well before the time the mural was produced. In fact, the “tea-horse trading” was begun by the Khitan at the beginning of the “Wudai shiguo era” 五代十國 (Five dynasties and Ten States), during the early tenth century. It soon became a solidly-institutionalized and routine way of trading along with other means of communication that took place between Liao and the Northern Song (960–1127).

From a geographical perspective, the “Tea Route” had become a most convenient way for Liao to get tea from the South through contacts with central regimes there bordering on Liao. Many examples can be found recorded in historical records that tea was given to the Khitan Liao as tribute by the central regimes of the Five Dynasties.

Some of this tribute was for general diplomatic and trading purposes, for instance, in 940, when Later Jin 後晉 (936–946) offered the Liao tea tribute by

2 *Xuanhua Liao mu bishua*, plate 1.

way of reciprocal courtesy,<sup>3</sup> but there were other cases when tea was presented for purely political reasons. In 954, for example, Later Han 後漢 (947–950) offered tribute consisting of tea and medicine to the Liao.<sup>4</sup> This was evidently a kind of remuneration to the Liao for helping Later Han repulse an attack from the Later Zhou 後周 (951–960).

Such relationships are readily understandable but what requires more thought is how the Liao conducted the tea trading with regimes located far afield. Through what routes did tea travel from the south finally to arrive at the north without stepping on the soil of the central regimes of the Five Dynasties period.

### The Tea Sea-Route between Southern Tang and the Khitan Liao

In Lu You's 陸遊 (1125–1210) *Nan-Tang shu* 南唐書 (also called Lushi *Nan-Tang shu* 陸氏南唐書, Mr. Lu's *Book of the Southern Tang*) it is mentioned:

烈祖昇元二年，契丹主耶律德光及其弟東丹王，各遣使以羊馬入貢，別持羊三萬口，馬二百匹來鬻，以其價市羅、紬、茶、藥。

In the second year of the Shengyuan era (938) of Liezu (927–947), Yelü Deguang, the ruler of the Khitan, and his brother, Prince of Dongdan, each sent an envoy to offer tributes of sheep and horses. In addition to that, 30,000 sheep and 200 horses were brought in to trade at market prices for silk, gauze, tea and medicine.<sup>5</sup>

This valuable piece of information reveals two important facts: first, the Khitan Liao used their sheep and horses to trade for the silks and tea of Southern Tang, and there was clearly a direct interaction between these two regimes; the second is the fact that the Khitan were able to transport 30,000 sheep and horses to the Southern Tang. How was this accomplished?

The territory of the Southern Tang did not border that of the Liao. This is because the central regimes of the Five Dynasties Period were located in between and separated them. In addition, the relationship between the Southern Tang, the central regimes<sup>6</sup> and the Khitan Liao was very tricky. These countries seemed on the surface to have coexisted in a peaceful manner in the sense that

3 *Liaoshi* 4.47 (“Taizongbenji” 太宗本紀 2, Huitong 會同 3, i.e. 940): 晉遣使進茶藥。

4 *Liaoshi* 6.72: (“Muzongbenji” 穆宗本紀 2, Yingli 應曆 4, i.e. 940): 漢遣使進茶藥。

5 *Nan-Tang shu* 18.75 (“Qidan liezhuan”).

6 Namely, Later Jin (936–946), Later Han (947–950), Later Zhou (951–960), and Northern Song (960–1127).

there were no significant military conflicts. None the less, the Southern Tang and the Later Jin in particular were *de facto* competing states. Thus, it was not at all easy for land route communication to take place between a regime located to the south east of a central state and the Khitan Liao in the north. The only real option for communication, in this case Liao agents arriving with a great number of sheep and horses sent directly to Southern Tang, was by sea.

In the opinion of the Chinese scholar Sun Guangqi 孫光圻, the Liao already had the ability to travel by sea. By that time, the Khitan Liao had annexed the Bohai kingdom 渤海國 with its own maritime connections. A seafaring contact between Southern Tang and Liao must thus, in Sun's view, have had taken place via the traditional seafaring route. This route went along the South-North coastal line, starting with the estuary of the Changjiang 長江 onto the East China Sea, then heading north and passing by the Shandong Peninsula, ending at the southern tip of the Liaodong Peninsula 遼東半島.<sup>7</sup> Sun's route is generally correct but direct evidence is lacking as to exactly where the sea route of the era started and ended. We lack historical records but there are clues in the historical material that suggest that such a contact existed.

It is written in the "Qidan liezhuan" 契丹列傳, "Khitan Biography", of Lu You's *Nan-Tang shu* under the year of 951 (5th year of Liao Shizong 遼世宗), that the Southern Tang sent an official named Gongcheng Rong 公乘容 to the Khitan via the sea route. In the second year after his arrival, he sent back to Emperor Li Jing 李璟 (916–961) of the Southern Tang a wax-sealed silk letter to report on his mission.<sup>8</sup> The route that Gongcheng Rong travelled must have been the same route as that taken by other people and goods between Nan Tang and the Khitan at the time. It is stated in this letter that Gongcheng Rong's voyage started at Yinyou 罌油 and ended at Zhendong guan 鎮東關, "Zhendong pass", and after Zhendong guan a land journey was undertaken to Dongjing 東京, the Liao "Eastern Capital", and then from Dongjing to Youzhou 幽州. Of the four names mentioned, two are easy to identify: Dongjing is Liaoyang fu 遼陽府, now Liaoyang city; Youzhou is the Nanjing 南京 of the Liao empire, now Beijing. Zhendong guan is, less certain, but is probably the same as the place where the later "Zhendong haikou Great Wall" (Zhendong Seaport Great Wall 鎮東海口長城) was built, in what is the present-day Dalian region.<sup>9</sup>

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7 Sun Guangqi 1989, 323.

8 *Nan-Tang shu* 18.76.

9 Tian Guanglin 2006.

The other important name, the starting point of the voyage from the Southern Tang side, has not yet been clearly identified. Gongcheng Rong writes in his letter that he departed from a “Yinyou” 罌油, but this place name appears only in Lu’s *Nan-Tang shu* but is not otherwise known as a geographical term. This is indeed confusing and problematic.

An hypothesis advanced here is that Yinyou is in fact Chuzhou 楚州 (present-day Huai’an 淮安, province Jiangsu 江蘇) and the place name that Gongcheng Rong mentioned is thus nothing more than a mistransmitted Chuzhou. Yinyou is similar in shape to Chuzhou and could have easily been changed to Yinyou over time. The calligraphic shape of the two sets of characters is similar, and Chuzhou could easily have become “Yinyou” through manuscript copying and re-copying. Also, Chuzhou is situated in a reasonable location for the seaport that Gongcheng Rong had used.<sup>10</sup> Thus, the sea route for tea trading between the Khitan Liao and the Southern Tang very possibly started at Chuzhou, then followed the coast line northwards, bypassing the Shandong peninsula, and finally ending at the southern tip of the Liaodong peninsula, namely at Zhendong guan. Through this sea route, bulk cargo trading, for example tea for horse trading, between Kitan Liao and the Southern Tang became possible and practical. Thanks to this fact, the two states enjoyed contacts beyond the reach of the constraining power of the central regimes located in between them.

### **Abandoned Fierce-Fire Oil: Obstacles to the Spreading of the Technique**

Among the commodities exchanged in the seafaring contacts between the Liao and the southern regimes, one is worth special attention: the so-called “fierce-fire oil” (*menghuo you* 猛火油). This was a name used for petroleum distillates used in warfare in ancient China. The transmission route for the substance during the Wudai period was, to a large extent, a reflection of the important position that Southern Tang and Wu-Yue occupied within the maritime space used for seafaring communications between Northeast and Southeast Asia. Moreover, the route also demonstrates the restrictions that transportation facilities could impose on the spreading of such a technology.

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10 For a detailed argumentation on this hypothetical conclusion, please see Li (forthcoming).

## Fierce-Fire Oil to Khitan Liao: From Wu-Yue or Southern Tang, examination of some historical myths

The claim that the Khitan received “fierce-fire oil” from Chinese regimes in the south first appears in Sima Guang’s 司馬光 (1019–1086) *Zizhi tongjian* 資治通鑑. This version of the story is thus the most frequently quoted and runs as follows:

吳主遣使遺契丹主以猛火油，曰：攻城以此油然火，焚樓櫓，敵以水沃之，火愈熾。（注：南蕃志：猛火油出占城國，蠻人水戰，用之以焚敵舟。）

The ruler of Wu sent an envoy to bring the ruler of the Khitan fierce-fire oil, with a note saying that: [one might] attack a fortress with this oil, to set it on fire and burn down watchtowers. If enemies try to extinguish the fire by pouring on water, the flame will grow increasingly fiercer. (Original note: According to the *Nanfan zhi* 南蕃志, “Monograph on the Southern Foreign States”, fierce-fire oil first came from the Champa Kingdom [in Central Vietnam], and barbarians used it in battles fought in water in order to burn the war vessels of their enemies’).<sup>11</sup>

Fierce-fire oil is mentioned many times in other historical texts, too, but most of them simply quote *Zizhi tongjian*.

Based upon the above excerpt from *Zizhi tongjian*, we wonder who may have been Wu *zhu* 吳主, the “ruler of Wu”, who has sent fierce-fire oil to the ruler of the Khitan, but his identity remains vague.

Various attempts were made in later sources to identify this ruler. Two such identifications are of significance for the present research: Li Bian 李昇 (888–943) and Yang Longyan 楊隆演 (897–920). They are mentioned in *Liaoshi* 遼史 and in Wu Renchen’s 吳任臣 (1628–1689), *Shiguo chungiu* 十國春秋 (*Spring and Autumn of the Ten Dynasties*) respectively.<sup>12</sup> However, both identifications are based solely on the passage found in *Zizhi tongjian*, which provides no name for the ruler.

Faced with this gap, and rejecting older identifications, some modern scholars have suggested a new candidate for the “ruler of Wu”. According to this hypothesis, *Liaoshi* and *Shiguo chungiu* are mistaken, and the person in question should be Qian Liu 錢鏐 (852–932), the “ruler of Wu” who later became the founding King of Wu-Yue. This proposal was first advanced by Wang Zhongluo 王仲犛 (1913–1986) in a reply to a short communication by Tang Jiahua

11 *Zizhi tongjian* 269.8814 (“Hou-Liang ji” 後梁紀 4, Zhenming 貞明 3, i. e. 917).

12 *Liaoshi* 71.1200 (“Houfei liezhuan” 后妃列傳 1). Cf. *Shiguo chungiu* 2.48 (“Wu” 吳 2, “Gaozu shijia” 高祖世家, Tianyou 天祐 14, i. e. 917).

譚家驊.<sup>13</sup> Later, several younger scholars have supported Wang's contention.<sup>14</sup> Consequently, of central importance was not the question of who sent the fierce-fire oil to the Khitan but if it was the king of Southern Tang or rather the king of Wu-Yue. In other words, was this military technology transferred from Wu/Southern Tang or from Wu-Yue to Khitan Liao, although the transfer itself remains a mystery? Our sources make it clear that both Wu-Yue and Wu/Southern Tang were in possession of fierce-fire oil, and both of them used this technology in military affairs.<sup>15</sup> The Khitan could well have obtained their "fierce-fire oil" from either of the two Chinese states with which the Khitan Liao maintained diplomatic relation at that time, or even from both.

### Why did the Khitan not use fierce-fire oil?

Due to the firm historical tradition, we can be certain that either Wu/Southern Tang or Wu-Yue once sent fierce-fire oil to the Khitan, although the Khitan people did not use it in combats. Why not? It was, according to the words of the empress reproduced in Ye Longli's 葉隆禮 *Qidan guozhi* 契丹國志 (*Monograph of the Khitan State*) and in the *Liaoshi*, not used, because she wondered

豈有試油而攻人國者?

How Liao could assault another state for the sake of testing an oil?<sup>16</sup>

The story may be true but only helps to explain why the oil was not used upon its first arrival in the Liao state. Apparently they had little desire to wage a war merely to test a new warfare technique, namely the fierce-fire oil, but this cannot be taken to mean that the Liao would just hang on to the new technique and never resort to its use. Nonetheless, it is fact that there are no records on the use of fierce-fire oil in Liao historical literature.

So the question that arises is that if Liao had the oil why did they not use it? Not much research has been done in this area, but Joseph Needham and his collaborators have provided a to-the-point explanation in *Science and Civilization in China*:

Here we can see how the nomadic traditions of cavalry strategy found it hard to absorb the new-fangled siege weapon.<sup>17</sup>

13 Wang Zhongluo 1957.

14 Among them, see in particular Peng Yanfen 2006, 78ff.

15 For a detailed argumentation on this hypothetical conclusion, please see Li (forthcoming).

16 *Zizhi tongjian* 269.8814. Also in *Qidan guozhi* 13.138f ("Houfei zhuan" 后妃傳); *Liaoshi* 71.1200.

It was also used more commonly than not as a weapon used in naval battles, which were not relevant to Liao.

Does his explanation really explain the historical facts, and is the reasoning of Needham and his collaborators reliable at all? If the non-use of fierce-fire oil was truly due to the fact that the new weapons were incompatible with the nomadic tradition, then, for example, the “artillery army” (*paoshou jun* 砲手軍) of the Khitan would scarcely ever have been created. There was even a special office, the *paoshou jun xiangwen si* 砲手軍詳穩司 (Artillery Army General’s Division), administrating “flying catapults” (*feipao* 飛砲).<sup>18</sup> Since the Khitan had already learned to use such catapults, often throwing explosives by that time, what clearly shows that they were in every way using a new-fangled weapon too, there was no reason for them not to use fierce-fire oil as well. Thus, the argument proposed by Needham and his collaborators seems untenable, and there must be other reasons be sorted out as well. At any rate, the Mongols certainly had a sophisticated siege train, including catapults throwing bombs, actual examples having been recovered from off the Japanese coast.

As I will argue here, the fact that the Khitan did not use fierce-fire oil was an inevitable consequence of the geopolitical conditions and the transportation realities of the time. There were only three possibilities if the Khitan wanted to secure a stable supply of fierce-fire oil: first, from the king of Wu, who had sent the oil as tribute in the first place, whoever he was; second, directly from Champa, in central Vietnam, where the king of Wu had acquired his own supply of the oil from; third, directly from the Middle East (Dashi 大秦).

Of these possibilities, the first and the second possibility are highly unlikely, almost impossible, while the third one remains possible. However, the oil in this case may not have come by sea, since seafaring exchanges of goods between the Dashi and Khitan Liao are unknown so far and thus not likely. As a rule, the land route was preferred for mutual contacts between the two.<sup>19</sup> But the land route was not practical for large-scale liquid shipments, and while shipments of petroleum and petroleum products are known between the Middle East and China, they nearly all came by sea in later times when shipping was more developed. Therefore, we maintain that the reason why the Khitan did not make large-scale use of fierce-fire oil as an advanced military technique, was simply

17 Needham, He, Lu, and Wang 1986, 81.

18 *Liaoshi* 46.739 (“Baiguan zhi” 百官志 2). Note: 詳穩司 is also called 詳衮司. 詳穩 is another form of 詳衮, a transliteration of the Khitan word for “General” (Chin. *jiangjun* 將軍).

19 For a detailed argumentation on this hypothetical conclusion, please see Li (forthcoming).

because they lacked confidence in the reliability of a regular and sustainable supply of the oil. If this hypothesis proves right, it may be adduced as evidence for the fact that transportation conditions can be, in one way or another, an obstacle to the spread of a military technology.

### **Politics of Maps: Central Dynasty and the Northern Empire**

During the Five Dynasties period, booming trade, substantial population mobility and the rapid development of long-distance transportation promoted the technology of communications. This development was reflected in technological advances in producing “hardware”; techniques for manufacturing vehicles, also in thoroughfare and bridge construction for overland transportation, and in the manufacturing seagoing vessels in terms of seafaring transportation. Technology development also manifested itself in various fields of “softwares”, for example, in navigation techniques and cartographic technology, as used in marine navigation, and for ground mapping and large-scale map-making.

#### Maps for special use

At that time, marine chart-making, an important technology closely related to sea route transportation, seemed to lag behind the development of other technologies involved in seafaring. More surprising is the fact that not one marine chart has been found that may be dated to that period. Nonetheless, this absence of evidence, however, should not be taken to suggest that marine charts did not exist at the time.

There are, by and large, two possibilities that may explain the absence of marine charts in the historical records: first, the unfolded map was too large to be easily produced and incorporated into a book, (this was a common problem when ancient maps were preserved and passed down); second, there was the fact that marine charts were unlike other maps. These were drawn by special officials and scholars<sup>20</sup> and thus more likely to be preserved because of their elite status and the political values involved in making them in the first place. By contrast, marine charts at that time were normally made and used only by sailors and ship’s crews, those directly involved in seafaring.

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20 There were special officers to administer the production and preservation of maps in ancient China. This is shown through the inclusion of the connected term *zhiguan* 職官 in every official dynastic history.

Other maps of practical value and used for particular purposes did exist as well, but the majority of them have not survived. These included military maps, irrigation and agricultural maps, engineering survey maps, and cemetery construction blueprints, etc. It is fortunate that such maps are mentioned in some historical books. Thanks to such records we know that such maps existed.

For example, in 964, secret agents of Later Shu 後蜀 (934–965) were captured by the Song. They were later pardoned by Zhao Kuangying 趙匡胤 (927–976) on the condition that they describe the landscape and the location of fortresses of their home state. A map was drafted based upon their descriptions. It was then handed to General Wang Quanbing 王全斌 (908–976) for later use in a military attack against Later Shu.<sup>21</sup> This episode clearly shows the importance of this particular kind of map. Maps of this type could have existed at other times, though most of them are lost.

### General regional maps

Another kind of map was of special significance in ancient China. This kind was similar to country and regional maps of today, although such maps were not just practical tools for orientation, but political symbols. But this is not in any way to disregard their value for practical use.

A passage from *Han Feizi* 韓非子 may serve to illustrate this point:

事大未必有實，則舉圖而委，效璽而請兵矣。獻圖則地削，效璽則名卑，地削則國削，名卑則政亂矣。

Now when you enter the service of a powerful state, your substantial concessions are required, and then you must hand over all the maps of your territory and present your official seals when you request military aid. Once the maps have been presented, you will be stripped of territory, and once your official seals have been put into the hands of someone else, your prestige will vanish. If your territory is stripped away, the state will be weakened, and if your prestige vanishes, the government will fall into disorder.<sup>22</sup>

As this passage clearly illustrates, if a country gave away its maps this meant its military and political surrender,

This fact became even more apparent in times of discord when a powerful state set out to unify China. Even if not richly documented in the historical

21 *Songsshi* 479.13875f (“Xi-Shu Mengshi shijia” 西蜀孟氏世家 2).

22 *Han Feizi* 49 (“Wudu” 五蠹; Chen Qiyou 2000, 1114). The translation, with some adaptation, was taken from Watson 1964, 112.

literature related to the Five Dynasties and Ten States period, there are still clues to the “map politics” of the time.

In the fourth month of 973, Lu Duoxun 盧多遜 (934–985) defrauded Li Yu 李煜 (937–978), the last ruler of the Southern Tang, of the state maps of the Southern Tang.<sup>23</sup> This information shows that maps had both symbolic and pragmatic value: they not only contained information on military stations and population census, meaning surrender in a tactful manner, but also included topographical and geographical information. And as such, they were naturally employed for military ends.

The Khitan people demonstrated skill in manipulating the symbolic politics of maps, those originating from Chinese regimes. For example, the *Liaoshi* records the offer of the sixteen prefectures (*shiliu zhou* 十六州) of the Yanyun region 燕雲 (around modern Beijing) by the Later Jin to the Liao:

晉復遣趙瑩奉表來賀，以[...]十六州並圖籍來獻。

Jin further sent Zhao Ying with a letter of reverence and offered the sixteen prefectures [...] together with maps of them.<sup>24</sup>

Further, when the Jin were defeated, all of their valuables were packaged and transported to the Liao upper capital Shangjing 上京, including their “maps”.<sup>25</sup> Even Koryō sent an envoy with a map of the country.<sup>26</sup>

From such historical materials, however, we see different treatments of maps. Unlike the central regimes, the Khitan did not attach real significance to these maps. Neither did they bother to request a map from another state for military purposes. Nor did they reckon with receiving one as a sign of surrender. They were apparently just given the maps.

The awareness of the political value of such maps was on the part of the central regimes, or perhaps on the part of Koryō. In either case, such awareness was not very strong. Perhaps due to fact that the Kithan were not much caring in this respect, we rarely find information about maps in historical records about the Khitan, not to mention remarks about serious efforts on their part to seek maps from other regimes.

23 *Xu Zizhi tongjian changbian* 14,299 (“Taizu” 太祖 14, Kaibao 開寶 6, i. e. 973).

24 *Liaoshi* 4.44f. [Omitted is the list of names of all sixteen prefectures.]

25 *Liaoshi* 4.59f.

26 *Liaoshi* 4.157 (“Shengzong benji” 聖宗本紀, Tonghe 統和 20, i. e. 1002). See also Wittfogel and Feng 1949, 531.

Differences in the way the Khitan treated maps become even more apparent when we compare them to the attitudes of the rulers of Chinese regimes. For instance, soon after its founding, the Song government had already acquired a considerable number of maps, including maps from the Khitan Liao. In 1001, Song Zhenzong 宋真宗 (Zhao Heng 趙恒, 968–1022) showed his ministers maps of Shanxi, Ganzhou, Liangzhou, Youzhou, and the area to the north of the Khitan state.<sup>27</sup> The most famous map involving Khitan territory might be the one made by Shen Kuo 沈括 (1031–1095) after his surveying of the landscape during a stay in Khitan domains as an envoy.

膠木屑溶蠟，寫其山川以為圖。歸以木刻而上之。

He glued saw dust with melted wax to form a miniature of the landscape and afterwards made a woodcut version of his information and submitted it [to the emperor].<sup>28</sup>

And this may have been the first three-dimensional map.

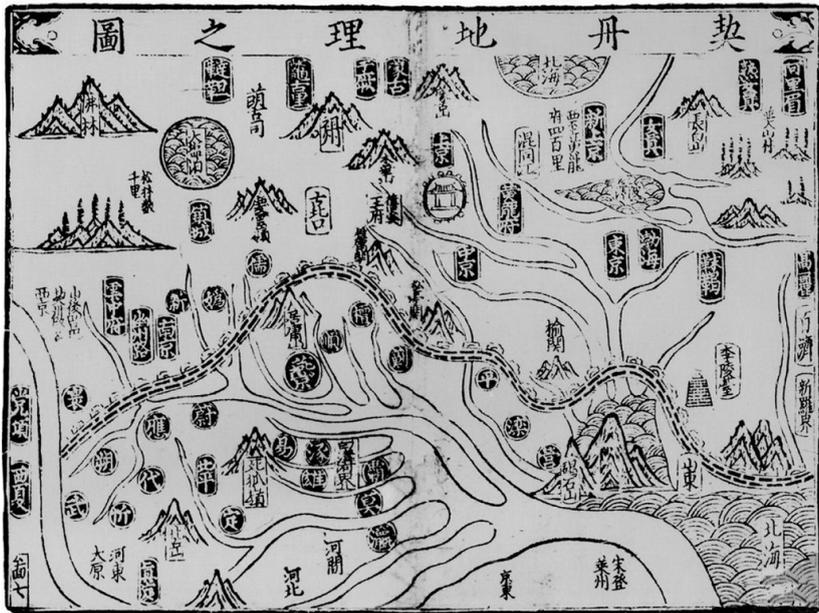


Fig. 2 “Qidan dili zhitu”<sup>29</sup>

27 *Xu Zizhi tongjian changbian* 49.1078 (Zhenzong 真宗, Xianping 咸平 4, i.e. 1001).

28 *Xu Zizhi tongjian changbian* 267.6542 (Shenzong 神宗, Xining 熙寧 8, i.e. 1075). Also in *Mengxi bitan* 25.813 (“Zazhi” 雜誌 2).

There is a lot of literature about maps of the Khitan, among them *Qidan dili zhi tu* 契丹地理之圖, “Image of Khitan Geography” (Fig. 2) But this is the only existent map of Khitan territory. It was preserved in *Qidan guozhi*, printed in Yuan times, but it remains apparent that, compared to Chinese regimes, the Khitan clearly attached much less significance to the symbolic value of maps.

## Conclusion

During the Five Dynasties and Ten States period (907–979), Northeast Asia was characterized by a frequent economic and political communication within the vast region involved. Because of their competing relationship with the geographically central regimes, some peripheral states developed a special model of “jump-over contacts”, for example the contacts of the Southern Tang and Wu-Yue with the Khitan Liao. Contacts were via the sea route in order to avoid the central regime, which blocked contacts on land.

It is thus interesting to outline this sea route and its ports of departure. Unfortunately, the port of departure on the Southern Tang side, namely Yinyou 罌油, mentioned only once in Lu You’s *Nan-Tang shu*, is unknown from other sources. The present paper thus suggests that Yinyou should be read Chuzhou 楚州, given the known facts of the period.

A second question examined in this paper is why fierce-fire oil was not actually used by the Khitan in their wars although they are known to have had it available. The answer, I suggest, lies in transportation issues, which restricted the supply of the oil. This shows that transportation issues rather than technology in and of itself prevented the spreading of a certain commodity in a particular region.

The final focus of the present research was on maps and map-making and on the symbolic importance of maps. I postulate that although Liao maps are mentioned in historical books and maps with a practical value were used, they have not been passed down to later generations, with one exception, because such maps were less valued than they were among the central regimes, which put a high symbolic and political value onto the possession of maps. This aspect of maps was of less interest to the Khitan Liao, although they had acquired a certain awareness of the political value of maps from some of their highly sinicized neighbouring countries and Korea.

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