Ancient City-States of the Tarim Basin

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Eastern Central Asia, today the Uighur Autonomous Region of Xinjiang, in the People's Republic of China,[1] has been historically home to independent communities, organized into small principalities centred in or around oases, whose political organization, economy, and social life are comparable with that of city-states in several important respects. They were linked overland by routes crossed for centuries by merchants and envoys travelling between Europe and Asia. In waves, the city-states of the Tarim Basin accepted foreign cultures which they then made their own, turning them into the common patrimony of the whole region. Even when, conquered by foreign powers, these communities became part of larger political entities, such as the Chinese, the Tibetan, or the Mongol empires, the specific city-state tradition asserted itself as the natural political configuration of the region. As a result, until their incorporation into China as a proper province, foreign domination was ephemeral.

At the same time, no internal impulses were strong enough to unify the region. In time, although some of these city- (or perhaps oasis-) states,[2] such as Kashgar, Hami, and Turfan, became regionally powerful, they were not able to impose their rule and transform their region into a single "state". War in the region was endemic, especially between nomads and agriculturalists, due to differences in economy and political traditions, but relations among the oasis-states themselves tended towards the establishment of balanced forms of economic, religious and cultural interaction. The ethnic identity of the people who lived in the "oasis-states" was closely linked to the city of their birth and residence, and cultural markers – such as clothes, languages, food and social customs – that allow us to identify a given place of origin can be seen to this day.

Only recently has the Uighur ethnic designation been elevated to the rank of a common identity for the Turkic-speaking, Muslim inhabitants of Xinjiang (Gladney [1990]), but this functions as an umbrella term beneath which the old local identities based on the oasis of provenance are still discernible. Arguably, the oasis-states of the Tarim Basin and its surrounding areas in the Tianshan mountains and Ferghana region can be regarded as a "city-state culture" from the very beginning of historical times, in the second century B.C., and its remarkable resilience can be attested through many centuries of historical changes and cultural metamorphoses.

These oases are concentrated in the region of the Tarim Basin on the fringes of the desert depression of Taklamakan. The oases are created by streams and rivers flowing from the mountain chains that surround the desert. The glaciers on the mountains provide a more or less regular supply of water that, properly channelled and controlled, serves to irrigate the land, making it possible to support relatively large communities. The string of oases along the northern and southern edges of the Taklamakan have also served as stepping stones for commercial caravans, diplomatic missions, and religious pilgrimages along what has come to be known as the "Silk Road". Over the past three thousand years the environment has changed considerably (Hou [1996]), owing to the retreat of fertile land due to increasing aridity, and also to historical factors which from time to time have disrupted the irrigation works that enabled the cultivation of the oases. Aridity, however, was not the only phenomenon, nor probably the most important, that affected the life of the oases, as observed by Aurel Stein (Stein [1921] I: 202). Drifting sand that buried cultivated fields was another phenomenon that determined the abandonment of certain sites and consequent shifts in the location of oases. Recent archaeological surveys have determined, however, that the oases in the southern parts of the Tarim Basin were more heavily affected by this phenomenon because of the position of the rivers. These, flowing south to north, perpendicularly down the mountains into the desert, offered little protection from drifting sands for the farmland along their banks. In the northern part of the Basin, on the other hand, the Tarim river, flowing west to east, allowed vegetation to create a barrier that protected the fields and limited the advance of the desert. While the ancient oases to the south of the

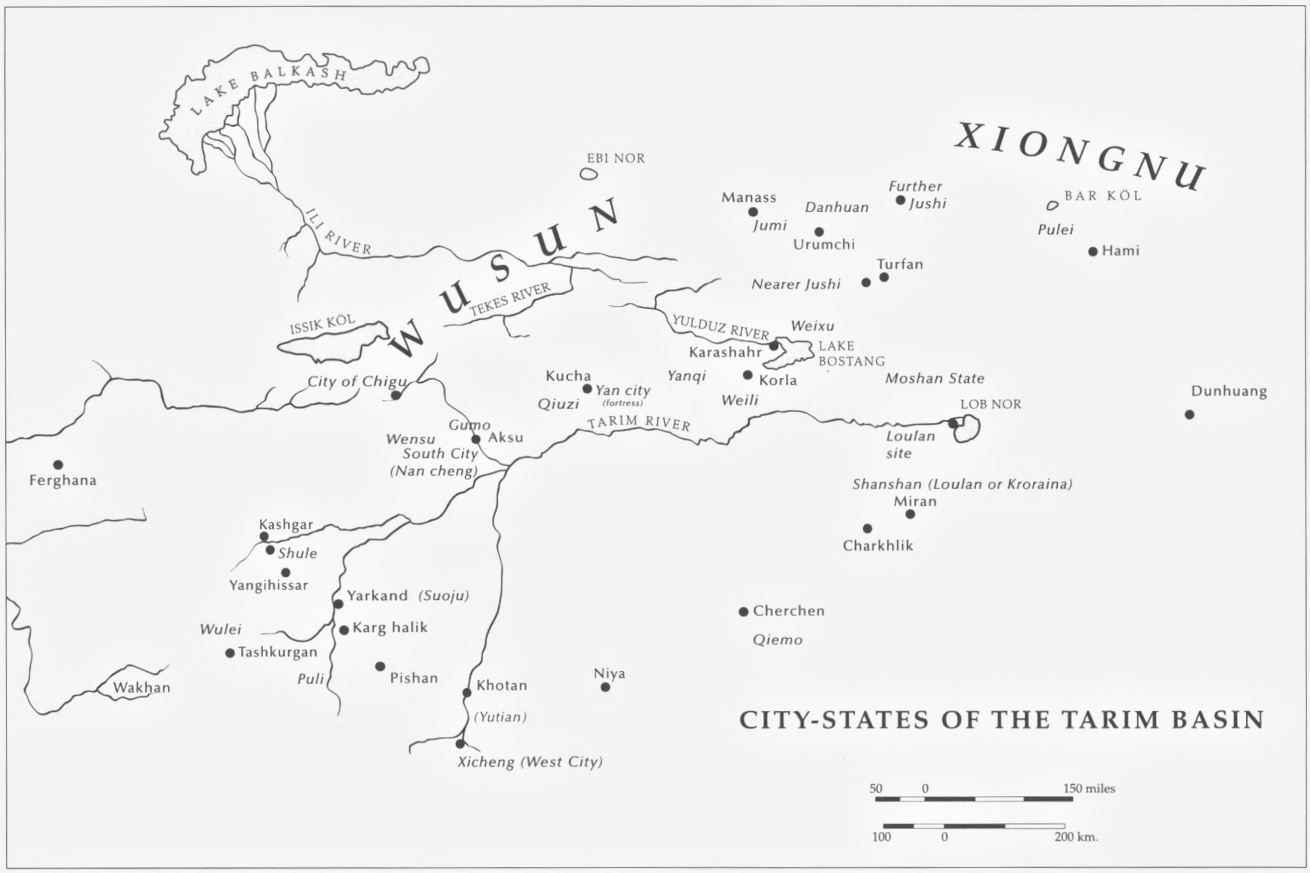

Fig. 1. Map of the Tarim Basin. Modern names in ordinary type, names of ancient states in italics.

Basin were generally located about 100 km to the north of their present sites (and some, naturally, no longer exist), no similar shifts can be documented on the northern fringe. Sudden disruptions of the fragile irrigation system caused by historical factors, such as invasions, or by natural ones, such as sharp fluctuations of snowfall that created a surplus of water beyond the carrying capacity of the canals (Zhang [1996] 282), contributed to the instability of the oases.

The societies of Eastern Central Asia and the political roles they played have also changed through history. The Chinese conquest of the region by the Han dynasty during the first century B.C. led to the ascendancy of the Tarim Basin as a crucial "funnel" in the development of commercial and political relations between China, Central Asia, and Europe. They became important centres for the study and diffusion of Buddhism, Christianity, and Manichaeism, and also grew in importance as trading entrepots together with the rise of the Sogdian merchant houses of the early Middle Ages in Inner Asia.[3] During the Tang dynasty (618-907) they were first under Chinese suzerainty, then under the control of Tibetans and other peoples. The end of the Uighur empire in Mongolia in 840 led to the migration of the Uighur elite to Central Asia, which further transformed its society, ethnic balance, and political system. The role of the Tarim Basin in the introduction into China of Western products, music, and peoples during the Tang dynasty cannot be overestimated, and its position in the development of relations between East Asia and the Mediterranean world is crucial in order to understand historical patterns of cultural transmission (*e.g.* Schafer [1963] 64-71 *passim*). The period from the 9th to the 12th century, when the Uighur elite became the local ruling class after fleeing China and Mongolia, did not disrupt the fundamental structure of the oasis-states, which enjoyed a period of political independence from China and other larger powers. During this time the region was formally united under a single Uighur ruler, but the urban centers retained political and economic autonomy. Around 1130, however, the Uighur principalities accepted the overlordship of a new regional power, the Karakhitay dynasty founded by Khitan fugitives from north China (Allsen [1983] 246).

In the early 1210s the rising Mongol empire reduced the oases of Eastern Central Asia to a state of political dependency. Subsequently, sovereignty over the cities of the Tarim Basin was disputed between the Mongols ruling China (Yuan dynasty, 1272-1368) and the Mongols ruling Central Asia (Chagaday khanate). The Islamization of the region, which took place gradually from the 10th century onwards (Foltz [1999] 97), constitutes an additional phase that transformed the nature of the Tarim Basin. During the Ming dynasty (1368-1644), oases such as Kashgar, Yarkand, Hami, and Turfan created independent polities that entertained tributary relations with China. The Qing dynasty's definitive conquest of the region, at the end of the 18th century, has not led to the "sinicization" of the region. After more than two centuries of Peking rule, the majority of the inhabitants of the Tarim Basin oases remain of Central Asian stock, speak a Turkic language, and follow the Islamic faith. The history of the region can be characterized, then, as an alternation of periods of full independence, when polities were able to rule themselves, conduct diplomatic relations, and trade with the outside world without foreign intervention, to periods in which they were still self-governing, but politically subject to a higher authority; during the latter periods they can be defined as dependent "city-states".

The changing history of these societies, so often overrun, traversed, and inevitably transformed by foreign cultures, peoples, and religions, cannot be dealt with in a single essay. We shall therefore not attempt to deal with all the different phases of their history, but will focus on their earliest documented existence, which precedes the spread of Buddhism, the creation of a "Silk Road" merchant network, and the rise of the great Inner Asian empires. At the time of the earliest contact between China and Central Asia, in the second century B.C., these societies appear in an almost pristine state, still relatively free from the thick layers of sedimentation left by foreign cultural influences, while their basic characteristics as "oasis-states" had already fully bloomed.

There are two sources of knowledge about the region: literary texts and archeological findings. While the texts have been studied thoroughly over the past century, archaeological excavations have focussed mostly on a later period (post-Han) and on a few sites that can be related with a certain degree of confidence to the situation found in the region by the early Chinese explorers. More significantly, the work of archaeologists in the region has been often guided by the necessity to establish chronologies and map the distribution of archaeological cultures. Therefore, archaeologists have given priority to the recovery of material objects and human remains from graves, while the study of settlements is quite underdeveloped. Before we address the specific evidence provided in the textual and archaeological records, it is necessary to explain the definition of city-state in the context of ancient Eastern Central Asia.

The Chinese sources identify the political entities of the Western regions as "*guo*", a term traditionally rendered in English as "state". But how should we understand a "state" in second century B.C. Central Asia? From the context it is clear that the Chinese applied the term *guo* to independent political formations with a recognizable chief and government hierarchy. In that respect, the definition is exclusively territorial and political. Therefore, "state" could also be rendered with other words such as "chiefdom", "realm", "kingdom" and even "khanate." A "state" can be so, regardless of the size of its population, of the type of its economy, or of its social composition, provided that there is a recognized political and military leadership. Therefore, nomadic as well as agrarian formations are equally encompassed by the term. The characteristics of "statehood" are determined by the specific functions of the government: a state should also have an army and should be able to mobilize people for the common good, such as defence, production, and the establishment of diplomatic relations and trade.

Tarim Basin societies were clearly aristocratic in nature, and the right to rule seems to have been inherited by linear descent, although not much is known about the ways in which other members of the government were appointed. Among them, civil administrators, military leaders and "interpreters" were especially important. Then as today, multilingualism was an important feature of this region, whose complex linguistic picture is far from having been clarified, but it is certain that Indo-European languages were spoken, such as Tocharian and ancient Iranian.[4] Given the presence of nomadic groups coming from the East, who might have been Altaic speakers, and of the relations with Sinitic speakers in the East and Greek-speaking communities in Central Asia, the interpreters occupied a prominent position in the government, possibly akin to that of a foreign ministry and diplomatic corps.

From a territorial viewpoint it is quite difficult to estimate the size of these states, and therefore their economic range. It would seem logical that nomadic groups who moved around "in search of water and

pasture" would have a lower density than the settled population living in the oases. The population belonging to the Wusun nomadic "state", according to the sources, numbered hundreds of thousands, but these occupied a vast territory in the western part of the Tianshan mountains and in the region of the Ili river in the northwestern corner of Xinjiang. The agricultural settlements, on the other hand, were concentrated along the banks of rivers and lakes, and it is safe to assume that agrarian "city-states" had a higher density than the nomadic areas, even when part of their production was based on pastoral activities. Given the constant care required by the fragile irrigation system necessary to control and distribute rationally the water flowing down from the mountains and randomly fanning out in the foothills, the oasis economy was labour-intensive, and based on a delicate equilibrium between population and environment. The many abandoned sites explored by archaeologists testify to the difficulties encountered by the local people over time to protect their settlements from occasional alterations of the natural environment. The construction and maintenance of walled cities also required the presence of a concentrated number of labourers. On the other hand, some of these agricultural states appear to be tiny from the size of their population, in which case they possibly occupied a small natural niche. In general, since these states had a political structure, conducted trade with their neighbours, and often had to defend themselves against enemies, we can also assume that the political reach of the agricultural city-states went beyond the natural boundaries of the oases, and that the territory actually controlled by these states included routes, strategic points, and stretches of desert where no people lived.

Very few nomadic states (e.g., the Wusun and Wulei) are said to have "walled cities" that functioned as seats of government. All other nomadic formations have their seat of government in "valleys" (*gu*) which clearly indicate the pasture grounds of the ruling clan. At the time of Chinese penetration in the region the dominant political power in the Western Regions (as the area was known to the ancient Chinese) were the Xiongnu nomads, who had created a huge empire centred in Mongolia and had later expanded to the West. Both Xiongnu and Chinese represented external conquering forces that reduced the oasis-states to a condition of political dependency. The Qiang, the Wusun, the Yuezhi, and the Sai (i.e., Saka) were the largest nomadic ethnic groups living in Xinjiang and surrounding regions. Some of them, like the Wusun and the Yuezhi, had been pushed west by the advancing Xiongnu onslaught. The Wusun in particular had retained unity as a single political formation, and had established themselves in the northwestern region of present-day Xinjiang and in the Tianshan mountains, in close proximity to various oases. Generally speaking, the nomads occupied alpine pastures in the Tianshan and Pamir mountainous regions and the grassy valleys north of the Tianshan. Oasis dwellers, on the other hand, occupied the lower ground at the foot of the mountains where the rivers coming down the glaciers fanned out forming a fertile belt before disappearing into the desert. Nomadic and settled people, therefore, lived near each other on the opposite sides of the ecological line between mountain pastures and desert-rim oases.[5]

Textual Sources

The discovery of the ancient societies of Central Asia (the "Western Regions" of the Chinese historical texts) is associated with the expedition of Zhang Qian, the envoy sent by the Han emperor Wudi (140-87 B.C.) to explore the west in an attempt to find allies against the nomadic empire of the Xiongnu (Gardiner-Gardner [1986]). Zhang Qian spent years in Central Asia, partly travelling, partly held in captivity by the Xiongnu. Upon his return he submitted to the court a report of his mission which constituted the evidential basis for the compilation of subsequent descriptions of Central Asia in the *Shiji* and in the *Han shu*.[6]

The knowledge gathered by Zhang Qian, naturally coloured by the circumstances of the mission, still constitutes the basis of our understanding of the ancient societies around the Tarim Basin. Zhang Qian described fifty-three states. Of these, six are located in Central Asia, and remain outside the scope of this paper, while the other forty-seven are located in the Tarim Basin and adjacent regions, including the Pamirs, the Tianshan mountains, the Ili region, and today's eastern Xinjiang. They include both agrarian and nomadic polities, of which twenty-four and possibly twenty-six surely had "walled towns" that served as capitals. The states which had "walled cities" do not seem to have had more than one city each, which served as capital. In the vast majority of cases the name of the state coincides with the name of the city, but there are exceptions, such as in the case of Qiuzi, whose capital is named Yan (see below), Jushi (modern Turfan), whose capital is called Jiaohe, and Yanqi (modern Karashar), whose capital is Yuanchu (not the same name). In some cases the name of the city is descriptive, such as the Southern (*nan*) city that

was the capital of the state of Gumo or the western fortress (*xicheng*) of the state of Yutian (Khotan). In those cases in which the name of the "city" differs from the name of the state, we may assume that perhaps the name of the state carries an ethnic connotation. This seems to be the case for the nomadic Wusun, whose seat of government was located in a "walled city" called Chigu (Red Valley).

The textual information available for each of these states is fairly consistent. Every entry includes the name of the state, the seat of the king's government, the titles of the most important officials, the number of households, individuals, and people who could bear arms. It also gives the geographical location of the place by mentioning the countries it borders on. The most important states have longer entries which include also notes on their local economy and political situation. Some of them have been identified geographically, a few still await proper verification, while most of them have been the objects of multiple conjectures and considerable controversy. Therefore, there is no unified opinion as to the actual location of a number of the sites mentioned by Zhang Qian.

Population

The size of these "states" varied greatly. The state of Wutanzili, located possibly between Manass and Ebi Nor, only had forty-one households, 231 individuals and 57 people able to bear arms. This was certainly an extreme case of a very small number of people able to occupy a particularly narrow niche that could not have possibly been highly developed either socially or economically. This is not an isolated case. There are several "states" that count less than one hundred families, such as Tanhuan, Jie, and Guhu. Most states, however, counted several hundreds and even thousands of households. Among the most populous the state of Yanqi, near modern Karashar, had the seat of government in the city called Yuanchu. Its population was 4000 households, 32,100 individuals, and a potential army of 6000. This state bordered, in the north, the Wusun nomads, with whom, judging from the titles of some of its officials, it had troubled relations (see below: Government) (HS 3917-18; Hulsewé & Loewe [1979] 178). Present-day Kashgar, one of the largest oases on the western end of the Tarim Basin, is identified with the state of Shule. This was also a populous region, with 1510 households, 18,647 individuals, of whom 2000 were fit to bear arms (HS 3898; Hulsewé & Loewe [1979] 141-2).

A cursory look at the ratio between general population and the army allows us to suggest that pastoral people were in general more highly militarized than agrarian polities. The state of Xiuxun, which is said to have customs similar to those of the Wusun (that is, nomadic), and to belong to the Saka race, had 480 persons able to bear arms out of 1030 individuals (HS 3898; Hulsewé & Loewe [1979] 138-9). Likewise, the state of Juandu (also Saka) had a similar ratio, with 500 soldiers out of 1100 people (HS 3898; Hulsewé & Loewe [1979] 139). Both these figures seem impossibly high, as one must assume that basically all males, children included, were regarded as fit for military service, or that a portion of women were included in the calculation of people serving in the army, or that some category of people, such as slaves, had been excluded from the population count but included in the number of soldiers. Since none of these possibilities can be supported independently, these figures must be regarded as less than reliable, but they are nonetheless revealing about the Chinese perception about the very high percentage of soldiers in nomadic societies. Another pastoral people, the Qiang, had a more realistic ratio, with 500 soldiers out of 1750 individuals, which may correspond more closely to the number of adult males (HS 3875; Hulsewé & Loewe [1979] 81).

Looking at most agrarian communities, the ratio between the military and the total population changes dramatically. In the state of Suoju (Yarkand) the army could count on 3049 soldiers out of 16,373 people, the state of Shule (Kashgar) had only 2000 soldiers out of a population of 18,647, and the state of Yutian (Khotan) 2400 soldiers out of 19,300 individuals (HS 3897, 3898, 3881; Hulsewé & Loewe [1979] 139, 141, 96). A rather large and powerful state such as Loulan, with a strong pastoral component, could field 2912 soldiers out of 14,100 people – again, about one out of five (HS 3875; Hulsewé & Loewe [1979] 83). Even lower ratios can be seen in the states of Qiemo, Xiaoyuan, Jingjue, Ronglu, Wumi and Quluo. Even making allowance for the unreliability of these figures, the emerging pattern is nevertheless quite impressive, and reflects on the different social texture of the two types of society. Nomads who had partly become sedentarized, like the Yuezhi, had a ratio of one to four.

Political Structure

Only about half of the states mentioned in the historical records can be properly defined as "city-states," since they feature a "walled city" (or more likely a large fortress) as their capital and central seat of gov-

ernment. For a few states it is unclear whether they had such a fortress, and for others, whether nomadic or settled, it is said that their central government was located in some "valley", from which we assume that these people did not have urbanized settlements. At the same time, it would be important to expand our analysis slightly also to a few states without a "walled city" for comparative analysis in terms of population, economy, and military matters.

Below the ruler, the government was often divided into two "wings", the left and the right one, encompassing both civil administrators and military commanders. Some of the highest titles, however, are not doubled. The most common of these higher titles is the *fu guo* ("support of the state") noble, corresponding possibly to a "chancellor" or "prime minister". A number of other appellations reflect troubled relations with the nomads, as in the case of states whose officials and military leaders were preceded by terms such as "*ji hu*", meaning "assault on the nomads". The states of Weili, Weixu, Yanqi and others had officials' titles bearing that designation.

The government of the state of Qiuzi (near modern Kucha, see Hou [1996] 65) is especially interesting because of the descriptive nature of its titles. This was probably the largest oasis-state of the Tarim Basin, as it comprised 6970 households, 81,317 individuals, and 21,076 people able to bear arms (HS 3911; Hulsewé & Loewe [1979] 163-4). Its government was proportionally large. Under the king we find the supreme commandant, the assistant, the noble of *fu guo* (support of the state), the noble of *an guo* (peace of the state), the noble of *ji hu* (assault on the nomads), the commandant of *que hu* (resistance to the nomads), the commandant of *ji Jushi* (assault on Jushi) the leaders of the left and right, the commandants of the left and right, the masters of cavalry of the left and right, the masters of *li fu* (strong support) of the left and right, two chiefs of a thousand troops respectively for divisions of the east, west, north and south, three masters of *que hu* (resistance to the nomads) and four interpreters-in-chief. The political and military establishment of Qiuzi, therefore, totalled thirty members below the king. Although there are exceptions, agrarian states seem to have had larger and more stable government structures than nomadic states. Even very small states as in the case of Guhu, located in the Turfan area, and counting only 264 individuals, and an "army" of forty-five, had a noble of *fu guo* and the commandants of the left and the right (HS 3920; Hulsewé & Loewe [1979] 182).

On the other hand, nomadic states appear to have a far less elaborate political structure, even when their population was very large. One of the biggest regional nomadic powers, the Wusun are said to have had total population of 630,000 people and an army of 188,800 soldiers (HS 3901; Hulsewé & Loewe [1979] 143-4).[7] Here too, we find a high ratio between population and military – a little less than one third. On the other hand, the government was much smaller than that of Qiuzi, as it comprised the chancellor, the *talu* (a native title), two supreme generals of the left and right, three nobles (*yabghu*), a commandant for each of the supreme generals, two supreme inspectors, the supreme official, two supreme officials of the household and the master of cavalry. These officials amount to only fifteen, a number comparable to the government of an agrarian state of about 30,000 people, such as Yanqi (HS 3917-18; Hulsewé & Loewe [1979] 178). Smaller nomadic states, however, had barely any officials at all. Out of the four small pastoral "states" of Xiye, Puli, Yinai, and Wulei, the only officials mentioned are a "noble" and a commandant for the state of Puli. Since information about officials is generally included, it is likely that in the case of small pastoral communities a proper government hierarchy was either unclear or even non-existent, even though they are defined as "states".

In terms of inter-state relations within Eastern Central Asia, we should note that, although some states have cities and others do not, and although the states with cities appear to be bigger and more powerful than those without, it is by no means true that "city-states" dominated formally or informally the cityless states. Not only could some of the city-states be very small, as Danhuan, which had a total population of 194 individuals, but there is no mention of cases in which city-states expanded at the expense specifically of cityless states (HS 3919; Hulsewé & Loewe [1979] 180). Yet a rough correlation between size and the presence of a fortress does exist, in the same way that, with exceptions, nomads did not have cities.

Economy

States had different economic bases and could draw on a number of resources, which included pastoral and agricultural production, trade, handicraft, metallurgy, and even theft and robbery. An economic boundary was constituted by the city of Qiemo, in the area of today's Cherchen. Starting from there, the land became more suitable for agriculture: as the records state, all crops known in China were cultivated there and "the land, vegetation, stock-animals, and manu-

facture of weapons are in general similar to those of the Han" (HS, 3879; Hulsewé & Loewe [1979] 92).

States to the east of Qiemo were not as well endowed. The economic basis of the state of Kroraina (Loulan in the Chinese records, later named Shanshan) was agriculture but this was clearly insufficient to feed the needs of the people, because its land is said to have been a kind of sandy and salty soil, ill-suited for growing crops, which therefore were in part imported from neighbouring states (HS 3876; Hulsewé & Loewe [1979] 85). As a consequence, pastoralism was resorted to as an additional form of production. This gave rise to a hybrid culture, since the people's lifestyle is said to have been more similar to that of their nomadic neighbours than to the sedentary city-dwellers of the west. Probably this very quality of mixed economy and population, together with its strategic position on the communication routes, made Kroraina people natural intermediaries between nomadic and settled communities. The sources say, in fact, that the Qiang hoped to import grain from Kroraina (HS 3875). This statement would seem to contradict the previous assertion that Kroraina itself was an importer of field-crops. If we assume that the grain and other crops imported by the Qiang originated in Qiemo, we can possibly see here an example of the trade mechanisms that linked the various economic niches of the Tarim Basin, with Shanshan serving as an intermediary to supply the nomads with agricultural produce originating elsewhere. Finally, the record states that Loulan, together with the state of Gushi, was located on the route to the various states to the west, and that these states often harassed Chinese missions by attacking and robbing them (HS 3876; Hulsewé & Loewe [1979] 85). That certain areas may not have been completely safe for travellers can also be deduced from the character used for the state of Jie, meaning "robbery", possibly bearing a relationship to at least one source of income on which the local people relied. However, besides the obvious predatory objective of these attacks, one might reasonably surmise that these states were trying to protect a commercial monopoly threatened by the appearance of Chinese merchants. The commercial and strategic importance of Loulan explains why an arid and relatively poor place achieved such a prominent place in the history of the Chinese conquest of the Western regions, as it became a key centre for Chinese political and military operations.

In some areas the texts attest the existence of a flourishing metallurgical industry. The 5000 people of the state called Moshan ("Black Mountain", HS 3921; Hulsewé & Loewe [1979] 182-3), possibly located south of Korla, were said to live on the hills near a mountain that produced iron, and to import agricultural produce from Yanqi and Weixu. This may have been a case of a community whose main economic activity might have been mining and metallurgy. Another state whose economy seems to have been closely linked to metallurgy is Gumo, in the region near Aksu, whose land was said to produce copper, iron, and orpiment (HS 3910; Hulsewé & Loewe [1979] 162). The archaeological mining site of Nulasai, in the same area, confirms the existence of highly developed metallurgy in this mostly nomadic region (Wang [1996] 79; Mei & Shell [1998]). The economic basis of the Gumo people is not stated except for metallurgy, but the composition of government and the low ratio between soldiers (4500) and population (24,500) does not seem to point to a nomadic population. It is possible that these people were mostly settled (even though their army had cavalry) and that metallurgy and trade played the most important role in their economy.

The economy of a number of states could not always be identified as decidedly agricultural or pastoral. Especially in the case of small "states", such as Weitou, which is said of have counted only 300 households, the people worked on the fields while also tending animals (HS 3898; Hulsewé & Loewe [1979] 142).[8] That their clothing was similar to that of the nomads may point to an instance of partly sedentarized nomads. This is a known ethnographic phenomenon that belies the often too sharp demarcation assumed to exist between nomads and settlers. The possible existence of sedentarized nomads makes it clear that only archaeological work will be able to prove, in the last instance, the true nature of the economy of each given community.

Among the other resources, some states relied on jade stone as an important economic asset, as in the case of Yutian (Khotan) and Xiye. Fishing provided a source of livelihood that must have been substantial, as in the case of the aforementioned Yanqi. A form of specialized pastoralism may be detected in some areas, such as the intriguing case of Wucha, a state that produced "short-pacing" horses (HS 3882; Hulsewé & Loewe [1979] 99) and donkeys, but no cattle.

Coins became more common in the Tarim Basin after the Chinese colonization. Before then, the use of coinage was far more common in Western than in Eastern Central Asia. Rather than coins, local people appreciated different means of exchange, in particular gold and silk, which were used as virtual currency,

while the bulk of trade must have been based on barter. The Chinese statesman Sang Hongyang recommended that the food required by the Chinese military colonists and convicts sent to settle the region be bought with gold and silk, which obviously held greater value than Han coinage (HS 3912; Hulsewé & Loewe [1979] 166). This is an extremely important statement, as it clearly explains the reason why Chinese silk was so common in Xinjiang through the ages. The value of silk (which the Chinese could provide more readily than gold) as local currency led to its popularity and diffusion in the region, rather than the Chinese interest in long-distance trade with the Mediterranean.

Finally, trade was well established, especially between pastoral and farming communities. Several pastoral "states" are said to "hope to obtain [the produce of] cultivated fields" (HS 3883; Hulsewé & Loewe [1979] 102). This I take to mean that barter trade existed between specialized communities, and that pastoral peoples were eager to obtain field crops through trade. Whether other means were used to get agricultural products, such as military force, it is not said. The nomads often attacked a given state in order to force its leadership into a tributary relationship advantageous to them, but the occasional border raid does not seem to have been a characteristic of their mutual relations, or at least not noticeable enough to be reported in the Chinese records.

Military Matters

Since Zhang Qian was mostly interested in gathering intelligence useful for military purposes, it is not surprising that much of the historical records also contain military information. This can be divided into two categories: military resources and military events. The first provide us with a broad view of the relative strength of each political formation, while the second illustrates the reasons why states resorted to the use of force in their mutual relations.

As we have already mentioned, the *Han shu* reports each state's armed force potential. Moreover, nomadic polities were more militarized than settled ones. This was not just a matter of lifestyle, but directly related to the nomads' ready access to military resources such as metal and horses. This is explicitly said of the Qiang nomads who lived in the easternmost part of Xinjiang, Gansu and Qinghai, who are said to have access to iron from the mountains and to be able to make military weapons such as bows, lances, knives, swords and armour (HS 3875; Hulsewé & Loewe [1979] 81). Settled people were also able to make weapons, as in the cases of Qiuzi and Loulan.

As mentioned above, the titles of some of the chief administrators of settled states show evidence of the barbed relations between settled and nomads. Settled states often relied on their fortresses to defend themselves, as in the case of the king of Jushi, who being "still in the stone fortress to the north, was not taken" (HS 3922; Hulsewé & Loewe [1979] 186), when he was attacked by a Han force. Some of them seem to have had mounted troops as well as infantry, given that the titles of their officials include "masters of the cavalry", as in the case of Jumi (HS 3920; Hulsewé & Loewe [1979] 181). On the other hand, nomads also had their fortresses, and we cannot assume that the way of fighting of nomads and settled people was very different, while the nomads certainly had access to superior military resources in terms of the number of people, horses, and advanced weaponry.

Why were nomads and farmers at odds with each other? It is a common assumption that the nomads raided the agricultural states to acquire produce they lacked. The textual sources bear evidence of the nomads' needs by mentioning several cases of pastoral states whose agricultural output was insufficient, and therefore were dependent upon other states' production. It is very likely that competition over agricultural resources was at the source of conflicts among these states. However, the typology of war did not involve nomadic raids against the lands of the farmers, but rather the military subjugation and exploitation of the resources of the farmers by the nomads. When nomadic polities were sufficiently strong, however, they could impose a tribute on the city-states and subject them to their political overlordship. In this way the nomads could guarantee a sufficient and regular supply of food to what must have been an extensive military machine. Lacking that extensive military machine the nomads' relationship with farmers was generally based on barter trade.

The relationship of subordination imposed by a strong nomadic state on an "oasis-state" can be exemplified by the Han-Xiongnu competition over the territory of Jushi, which had become a strategic location whose possession was needed to ensure the forces of either army might have access to sufficient supplies. These lands were bitterly contested for a long time, and both Han and Xiongnu sent their own people to farm the region, protected (not always successfully) by a massive number of troops. The fertility of the land of Jushi, and its proximity to the nomadic territories made them perfect bases to supply the nomads

with crops and other forms of tribute. Other city-states paid tribute to the nomads, too, and surely this type of economic-military relationship had a bearing on the general development of inter-state relations, since the military and political subordination of the settled people to the nomads was a necessary condition for the growth of nomadic polities. When the Chinese arrived in the region determined to extirpate Xiongnu political and military power, they fought primarily to "free" those states that had a subordinate and tribute-paying relationship with the Xiongnu. Much of the military history of the region is one in which Chinese armies and Xiongnu, that is, the superpowers of the time, fought over access to the agrarian resources of the region, both to prevent the enemy from using them and to support their own army. The territory of Hami, particularly exposed to nomadic incursions, was the object of attacks as soon as the Chinese dismantled their military colonies. From the account it seems that the nomads did not limit themselves to raiding the settlers, but moved into their territory and took possession of the farmland (Chavannes [1907] 158, 167).

After the weakening of the Later Han Dynasty (23-220 A.D.), the general tendency in the region was for the larger states to conquer the smaller ones, thus forming a political entity larger than a single "city-state." The states of Suoju (Yarkand), Shanshan (former Kroraina), Yutian (Khotan) and Jushi (Turfan) were to emerge temporarily as minor regional powers, but their limited expansion would not be of long duration as the conquered oases regained their independence (Chavannes [1907] 156-7).

Archaeological Evidence

Architecture

Lamberg-Karlovsky (1994) hypothesized that the large fortified complexes of the Oxus civilization in Bronze Age Central Asia were "khanates", a word that in this context describes an "achievement-oriented big-man society, not an ascriptively-determined chiefdom, and most certainly not a state." These societies were bellicose, expansionistic, and, most important, were based on the large fortified settlement known as *qala*. The *qala* excavated in Bronze Age and Iron Age Central Asia may offer a model for understanding the city-state culture of Xinjiang. These are large building complexes that served as residence for the king and incorporated several houses, temples, courtyards, and other architectural and urban features. Their main characteristic, however, are the thick, heavily fortified walls erected on a rectangular and sometimes circular plan, and outfitted with corner towers and ramparts. Similar Iron Age complexes have been excavated in Margiana, Bactria, and Khoresmia. The likelihood is that these large defensive complexes emerged as a response to fierce competition for water and land resources in the oases, once these areas were colonized, after the third millennium B.C.[9]

Unfortunately excavations in Xinjiang have not concentrated on settlements (Chen & Hiebert [1995] 289) and most of our knowledge and classification of prehistoric Xinjiang cultures is based on the excavation of grave sites and on surface finds. The presence of a fortress site near Kucha identified as the fortified "city" of Yen, the presumed capital of Qiuzi, presents so many elements of similarity with the Central Asian *qala* that it is impossible to ignore them. As a point of comparison, let us examine some of the features of the fortified sites of Bronze Age Margiana excavated by Sarianidi (1994). The fortress site of Gonor Depe, divided into a south and a north mound, extends over 20 hectares. The northern part is a large fortified building complex and the south is a large fortress. Without repeating the whole description of the archaeological sites, we shall simply note that Gonor south presents the following elements of interest: (1) a shrine formed by three rooms whose walls and floor are covered with white gypsum plaster; (2) a sacred ash depository; (3) large amounts of ephedra and hemp; (4) ten ceramic pot-stands. The shrines, probably devoted to ceremonies involving the use of hallucinogenic substances, have also been found in settlements. At the site of Togolok 1, dated to the mid-second millennium B.C., a shrine has been unearthed, which contains troughs also coated with gypsum plaster. At Togolok 21, dating to the late second millennium, there is a shrine, larger than the settlement itself, with pylons on the sides of the entrance. Again, floor and walls are coated with gypsum plaster, and traces of ephedra have been found in ceramic vessels.

Let us now look at the fortified settlement that is supposed to have been the "walled city" of Yan, capital of the state of Qiuzi (*Xinjiang sanshinian* [1993] 68). The city was walled, and although some of the walls have not survived, the perimeter of the city is reckoned to be around 7 km. Two rivers, one flowing from the east and the other from the west, bounded the city. This site is said to have flourished during the Han, then to have been destroyed during the Wei dynasty (220-65), and to have been later become prosperous again during the Tang dynasty.

Unfortunately, the remains datable to the Han and pre-Han period are few. The presence of elevated platforms of pounded earth within the walls' perimeter has been taken as evidence of the presence of large buildings. One of the platforms, for instance, has a circumference of 150 metres and is 9.4 metres high. Another platform, located at the meeting point of the southern and eastern walls, has an elevation of 1.5 metres and a circumference of 120 metres, and is thought to be the remains of an ancient tower. On the top of one of these platforms archaeologists have also found three plinths, and the remains of the foundations of three rooms and of fragments of what once was a floor with a white-plastered surface; this has led to the hypothesis that this site might have hosted a temple.

If we attempt a cursory comparison between this site and the Oxus fortresses, we may notice the following. The size of Qiuzi's capital is fully compatible with that of the Central Asian *qalas*. Its monumental defensive structures and the presence of a possible shrine show characteristics similar to those observed in Central Asia. Moreover, the ash pits excavated within the settlement, the large number of pots, and the widespread presence of ephedra in Xinjiang at this time seem to initiate not only architectural similarities, but also cultural affinities. While more research is needed to confirm this very preliminary comparison, it may be the case that the Tarim Basin fortified settlements emerged under conditions closely related to those of the oases of Central Asia. The "walled cities" that the texts repeatedly refer to (and distinguish from the non-fortified settlements) would be far easier to comprehend in the context of the *qala* complexes than in that of the better documented sparse farming settlements and ancient graveyards. At present we cannot quite yet see clearly the connections that linked Eastern Central Asia with the rest of Central Asia, but the presence of strong nomadic groups and the competition for natural resources that is typical of the Oxus oasis civilization would have made the fortified complexes of Central Asia architectural models for the Tarim Basin communities as they evolved into more highly organized polities.

The excavation of this ancient fortress is not an isolated case. The ancient city of Loulan, located on the western bank of the Lop Nor lake occupied an estimated area of 108,240 m^2 (Mu Shunying [1989] 54). At the centre of the city they found the remains of houses built with sun-dried mud bricks, and evidence of several large buildings, some of which were lined with lacquered pillars, as can be seen from the remains of the pillars' bases. In another part of the compound (or "city") the buildings appear to have been smaller and crowded together. The walls of these houses were made by weaving together the branches of red willows and then plastering them with straw and mud. The site, especially the buildings with pillars, shows Buddhist influence and is likely to be dated to the first half of the first millennium A.D., thus later than the period under consideration, but we cannot know for sure when the fortress was built. In reality, there is no reason to exclude the possibility that the fortified settlement existed already before the Han dynasty. It is important to note that on the south and north of the "city", outside the walls, the researchers have found remains of irrigation works (canals), and on the eastern part ancient cultivated fields have also been found. This shows that there was an organic connection between the "city" and the surrounding territory.

More fortresses have been documented in Xinjiang although they have not been extensively reported on. One of them has identified as the centre of Weili excavated north of Korla (*Xinjiang sanshinian*, 68). A walled site, identified with the "city" of Shule, has been found in Kashgar; another has been found north of modern Pishan, which has been identified as the ancient city of Pishan; other walled sites have been found to the southwest of Korla (Hou [1996] 61-6). Some researchers tend to attribute these fortified sites to the Chinese penetration, but in fact the historical documents make it clear that the first Chinese to see the region already encountered fortified cities. Dating these sites causes a number of difficulties as they were inhabited for long periods of time (continuously or intermittently), and by different peoples, but their structures are definitely ancient, and their number conveys the image of a region dotted with agricultural colonies that developed in the oases around large fortified settlements.

Non-fortified settlements have also been excavated, such as the one at the oasis of Niya, located in the southern part of the Tarim Basin. This site includes several dwellings, distributed along the bank of the Niya river, which formed a local farming community. The construction of the houses is very simple, as the walls were made of wattle woven with tamarisk twigs covered with mud, while the floors were made of straw, cow-dung and mud mixed together (Ma & Sun [1994] 230). Around these houses there were irrigated orchards which doubtless required intensive labour to maintain the tight network of canals on which irrigation was based. Stein in the course of his investigation

attributed to the site a size of 22.5 km from north to south and 6.43 km from east to west. Recent studies have shown that the site was probably larger, but not exceedingly so. The environment imposed strict limitations upon the area that could be brought under cultivation, and Niya could not have become a very large centre (Sheng [1989]).

Mountain settlements have also been found in the Tianshan mountain range. These settlements, located near lake Barkol, vary in size, sometimes being just 1,000 m^2 and sometimes as large as 7,000 m^2 and include houses with thick walls made of mud bricks. These sites are supposed to be the remains of the state of Pulei (Ma & Wang [1994] 221). If we look at the history of Pulei, the textual sources are somewhat contradictory, as the *Han shu* reports that Pulei's economy was not based on agriculture but rather on stock breeding, and that it imported crops from neighbouring states, while the *Hou Han shu* says that these people engaged in agriculture (Chavannes [1907] 209). Given that this land is located near excellent pastures, it is possible that an originally pastoral population eventually developed forms of agriculture, or that previously independent farming communities were later incorporated within a nomadic state. One aspect in which the archaeological record is definitely superior to the texts is that it shows that it is not advisable to draw a sharp line of separation between nomads and settled people. While the texts are important in documenting the existence of self-ruling communities, the nature of their internal social and economic organization remains hazy at best. The discovery of settlements on or next to land fit for grazing shows that farming could exist within areas politically dominated by nomads, although more archaeological research is needed to explore this point further.[10]

Material Culture

In looking at the material culture of the Tarim Basin "city-state culture" we face several problems. In the first place the culture of this region is known, as mentioned before, through the excavation of burial sites rather than through the study of settlements. More importantly, much of the archaeological work on sites that go back to the Han period, that is, approximately to the last two centuries of the first millennium B.C., is focussed on questions of transmission and communication between the Western Regions and China, and on the study of the extent and relevance of the Chinese presence in the region. It is fair to say that more attention has been paid to the presence of Chinese military colonies, documents, and watch-towers built by the Chinese than to the relations between the various cultural areas discernible in Xinjang at that time. An analysis of the material culture of the region around 100 B.C. aiming to reconstruct in detail relations and influences among its component members is premature at this stage, and we can only offer a general description.

Agricultural tools. Excavations of farming settlements from this period reveal a technology largely based on stone and bone implements, while metal findings in bronze and iron are very limited. The stone inventory comprises grinding stones, stone axes and stone adzes, while heavy bronze axes and bronze knives have also been found. Likewise, the oasis culture of the Lopnor lake and Tarim Basin remains also essentially a stone tool culture, inclusive of mortars and pestles, grinding stones, axes and hoes, drills, rings, spindle whorls, and bowls. Bone artefacts include arrowheads. needles, spindles and other small objects. The general impression is that the tools used by the agricultural people of the Tarim Basin were rather simple and even primitive, with a very limited use of metal tools.[11]

Metallurgy. Xinjiang is the area presently within the borders of the People's Republic of China where the first instances of metal-working may have appeared. Current studies, based not only on findings of metal objects, but also on the study of cut marks on logs which could have only been caused by metal implements, date the beginning of bronze metallurgy in the region to around 2000 B.C. (An [1998]; Wang [1996]). The number and quality of finds (many of which are very large) and the presence of mining sites attest to the importance and sophistication reached by metallurgy in Xinjiang, especially in the northeastern part of the region. Most of them are concentrated in areas inhabited by nomadic peoples, which fully confirms the view that the pastoralists who lived in the mountain areas and valleys of central and northern Xinjiang developed early on – most probably in the late third to early second millennium B.C. – a fairly homogenous metallurgical culture whose smelting and sites are clustered in discrete areas. Bronze metallurgy in the first millennium B.C. was especially advanced in the Ili region, and in the Turfan and Gumugou areas. Xinjiang bronzes include large vessels, of which the bronze cauldron is one of the most representative; weapons and tools, such as knives, arrow-heads, socketed dagger-axes, horse-bits and spindle-whorls; other objects such as mirrors,

buckles, plates; and variously shaped ornaments. The bronzes' manufacture and iconography also reflect a "northern" origin, as they relate to the "animal style" art that is associated with nomadic cultures of northern and central Asia. The state of research at the moment allows us to begin to locate the focuses of metallurgical production in the region, which, as we may expect from the texts mentioned above, flourished especially in pastoral areas (Mei & Shell [1998]).

The development of metallurgy in this region should probably be related to the initial transmission of knowledge carried into Xinjiang by migrating peoples from Central Asia and Siberia and later developments taking place locally. For instance, the Chawuhugoukou (Qawrighul), culture whose remains indicate the presence of nomadic elements, presents considerable differences with respect to the culture of earlier periods, namely the appearance of iron objects and horse-riding gear. Iron metallurgy also appeared in Xinjiang at an early stage, before any other site in China, and again seems to be connected with the cultural transmission occurring among nomadic peoples across Central Asia and Siberia (Di Cosmo [1996] 91-2). Possibly because of the requirements of pastoral economy (which tended towards an increasingly more specialized use of the horse), or because of the plentiful supply of raw materials, or still because of the possibility of trading metal objects with the farming communities, it is quite clear that Xinjiang nomads developed early on an advanced metallurgy.

The texts document the existence of several important groups, including the Qiang, Saka, Yuezhi, Wusun, and Xiongnu, and archaeologists have tried to establish cultural differences among them, but since only relatively few nomadic graves of the Iron Age have been excavated (most of the finds come from surface surveys), the distribution of specific cultural markers and the chronological sequence are still a matter of speculation (Zhang [1985]; Wang [1987]). In the oasis small bronze and iron objects have been found, but these are typically less common than in nomadic areas. Their presence could point to local manufacture or to instances of trade with metal-making, possibly nomadic, communities.

Contacts. Much archaeological research has been concerned with establishing contacts between Eastern Central Asia and the surrounding areas. While it is doubtful that studies oriented to the identification of external influences will contribute decisively to an understanding of the political and social change that the region underwent in the last part of the first millennium B.C., it is important to signal some of the issues that have emerged so far.

Textiles found in an excellent state of preservation in the oasis of Xinjiang have attracted early on considerable attention (Sylwan [1941]). Textiles include cotton, wool, and silk. The silk recovered in Xinjiang is usually identified as Chinese import, whereas the cotton cloth recovered at Niya points to connections with India, especially because of the indigo dyes. The excavation of graves in the Loulan and Hami areas have revealed several examples of woollen textiles, generally of a good quality, whereas felt, used mostly for hats, was quite coarse and inferior in quality to that produced by nomads. Recent studies have shown also the presence of another textile tradition in Xinjiang, responsible for the manufacture of plaid twills (Barber [1998]; Good [1995] & [1998]). The looms needed to make twills dated to the early Han and before point to a connection with Europe whose nature and significance remains to be fully discussed, but which cannot be ignored, especially in the context of the distribution of Indo-European speakers, and more specifically, to the diffusion of particular technologies across Central Asia.

Gold objects have been recovered mostly from nomadic burials, as in the case of Chawuhugou. The Saka burials of Xiangbaobao have yielded gold plaques, bronze and iron rings, and agate beads.[12] The presence of ornaments, and in particular of ornaments in precious metals such as gold and silver is far more common in a nomadic context, possible evidence of an economy in which trade was especially important, since gold was probably used, as mentioned above, as a form of currency. The similarities between the Xinjiang ornaments and those found in other culturally non-Chinese Bronze and Iron Age cultures in Gansu, Ningxia, and Inner Mongolia, suggests that the nomads dominated a broader network of trade that stretched from northern China to Central Asia and Siberia (Bunker [1998]).

Physical Anthropology

Several studies, mostly carried out by the eminent physical anthropologist Han Kangxin, have ascertained that the ancient population of Xinjiang included Caucasian people of different types as well as Mongoloid people and mixtures of the two. Remains of individuals belonging to the Mediterranean subgroup of the Indo-Afghan type have been found at Xiangbaobao and Shanpula. Other "Western" remains, belonging to the Pamir-Ferghana and to the

proto-European types have also been found in Central and Southern Xinjiang. Other sites show admixtures of various types (Han [1998]). The presence of so many different physical types demonstrates the occurrence of various migrations into Eastern Central Asia, coming from west, southwest, north and east, some of which seem to have occurred during the first millennium B.C. These migrations, and the presence of so many racial types, show that Xinjiang had become the meeting point of different cultures before the historical opening of communication between East and West. These newcomers brought with them specific cultural traits including languages, technical knowledge, and specific forms of social organization. Much of the present-day research is directed towards the identification of these traits, sometimes across huge distances, and from multiple viewpoints.

Conclusion

Archaeological research, notwithstanding enormous advances and discoveries in the past few decades, has not yet provided sufficient material for a fuller understanding of the culture of the states mentioned in the historical records and of their collective status as a "city-state" (or "oasis-state") culture. From what we have said so far, however, we can suggest a few points that may help define it. Around the second century B.C. the "city-state" civilization of the Tarim Basin comprised a tight network of communities whose political structure was centred in fortified settlements and based on the oasis economy. These communities had been in contact with each other since the Bronze Age, but at the same time, because they occupied discrete environmental niches, and because of their relative isolation, different cultures developed. The most relevant long-term cultural divide that can be ascertained thus far is that between settled and nomadic cultures. Adaptation to the extremely diversified environment of the Xinjiang region, where alpine pastures, foothill oases, and semidesertic areas exist in close proximity, gave rise to a variety of human adaptations. The most successful of these include: (1) farming based on the "micro-management" of the water resources of the oasis; (2) a fully pastoral economy; and (3) a combination of agriculture and stock breeding, where the land did not permit many crops to grow, as in the case of the Lopnor area. The nomadic areas in the Tianshan and Ili regions developed a more sophisticated metallurgical culture, as a result of the availability of raw materials extracted from the mountains at large mining sites, as in the case of Nulasai. These areas were in close contact with Central Asia in the west, the Sayano-Altai region in the north, and, to the east, pastoral areas in northern China. Metal tools for agricultural work, such as ploghs, were more common in regions dominated by pastoral peoples than in the oases, where stone and bone tools continued to be used to a late date.

When the city states were actually formed we do not know for sure. By the second century B.C. a number of these communities had achieved a high level of political maturity, and their economy was able to support a sizeable population. This implies a fairly long process that may have begun towards the middle of the millennium, though such a *terminus post quem* cannot be confirmed. From the dearth of early fortresses to be found in the Tarim Basin oases that could be dated prior to 400 B.C., we may also assume a relatively short process, that began around 400-300 B.C. and developed rapidly, possibly as a response to the growth – political, economic, and technological – of nomadic groups. The hypothesis of a migratory colonization from Iran and Central Asia cannot be excluded, but such a hypothesis for the time being belongs in the realm of speculation, quite removed from the evidential plane.

As one might expect, contacts among all of these "states" included trade, cultural exchanges, and war. The appearance of large fortified complexes such as the walled city of Yen near Kucha could be ascribed to the fierce competition for resources and to the antagonism that developed between agricultural and pastoral communities. We have suggested that the analogy with the *qala* of the Central Asian oases – fortified palatial complexes used by the head of the community and its aristocracy as residence, religious centre, and seat of government – may prove useful to attain a better sense of the political organization of these "states". It has also been suggested that a series of small settlements developed along river banks and in other areas suitable for cultivation, which were politically dominated by the *qala*-based aristocracy.

Beyond possible analogies, we should be mindful of the fact that the history of the Tarim Basin "oasis-states" cannot be reduced to a social and political model that dominated elsewhere. The specific historical role of the Tarim basin as a funnel of communication between distant cultural areas came into historical focus when political developments led to the arrival of Chinese diplomats, soldiers and settlers. While the northern part of Xinjiang, in particular the northern Tianshan, the Ili basin and the Altai regions had been crossed by nomadic pastoralists for a long time, it

seems that the oasis communities in the southern part of Xinjiang, in the eastern part of the Tianshan range and around the Taklamakan desert, constituted a fairly independent "frontier region" with possible cultural ties with Central Asia.

Without stressing natural factors more than is necessary, the environment of the Tarim Basin imposed serious requirements on any community that wished to settle and extract the means of subsistence from its oases. The need to manage the water flowing down from the glaciers at seasonal intervals by channelling it into a network of man-made canals called for intensive labour. Defence from neighbouring communities, and especially from the pastoral peoples inhabiting the grassy slopes of the mountain ranges posed another requirement that may have led to the stratification of society and to the formation of an oligarchy in charge of economic development, defence and diplomatic and trade relations. (Interestingly, the titles reported in the Han sources do not include any official that might be obviously in charge of religious functions, but it is possible that archaeological research will provide such evidence.)

It is perhaps in the "achievement-oriented" political structures that were formed in the oases of Eastern Central Asia, strengthened by the constant struggle against natural factors and human foes to preserve their livelihood, that we can identify the reasons for the extraordinary resilience of the Tarim Basin civilization. Its cultural and economic foundations no doubt were already in place in the Iron Age, as well as its essential characteristics of local self-sufficiency and self-government, long-range trade and diplomacy, and the symbiotic relationship between farming and pastoral peoples. In later history, this "oasis-state" culture demonstrated to be politically flexible, receptive to foreign cultures, and economically viable. It would not be implausible to claim that the extraordinary role of this culture in world history, as a civilization that thrived by allowing contacts among other civilizations, could only persist because the people of the oases successfully preserved a way of life already in place in the late first millennium B.C.

Notes

1. Xinjiang was established formally as a province in 1884, while from the time of its conquest in 1760 to that date it had been an outer protectorate.
2. The term "city-state" to refer to the oasis-based urban and agrarian communities of the Tarim Basin has been used by one of the foremost specialists of Xinjiang history, Zhang Guang-da [*sic*] (1996) 281-301. The term city-state is not defined in this article, which concentrates on the period roughly encompassing the first half of the first millennium A.D.
3. A very readable, well-balanced account of the spread of religions in the region is Foltz (1999). On the Manicheans see the excellent work by Lieu (1998). On the Sogdians see Semenow (1994). Much has been written about Buddhism. For a synthetic overview, which includes Eastern Central Asia, see Litvinsky and Vorobyova-Desyatovskaya (1996) 431-48.
4. For the earliest linguistic distribution in the region, see the collection of articles in Mair (ed). (1998) I: 307-534.
5. On the economic symbiosis between ancient nomads and farmers in the region see Iwamura (1962) and Di Cosmo (1994).
6. There has been a certain amount of controversy as to the reliability and authenticity of these chapters. See Hulsewé (1975); Pulleyblank (1981); Leslie and Gardiner (1982); Daffinà (1982); and Gardiner-Gardner (1986).
7. This figure is different from that reported in the *Shiji* (Memoirs of the Grand Historian), which says that they have several tens of thousands of archers, a figure that would not normally imply more than 100,000. See *Shiji* 3161. Watson translated "20,000 or 30,000" (Watson [1993] 234) but such figure seems arbitrary.
8. The state of Weitou did not have a "city" as capital, and therefore it would not be properly included in the number of "city-states", but it is important to mention it in order to gain a better idea of the economic context of the region.
9. On the formation of the "oasis civilization" of Central Asia see Hiebert (1995).
10. On the question of the complex economy of grassland areas see Chang & Tourtellotte (1998).
11. The agricultural settlements of the Tarim Basin in general appear to be fairly poor and backward in terms of their material culture. See Hou (1996) 58-9.
12. On Chawuhugou see *Kaogu* 1990. On the Saka tombs see *Kaogu xuebao* (1981).

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