

NEOLITHIC COMMUNITIES IN EASTERN PARTS OF CENTRAL ASIA¹

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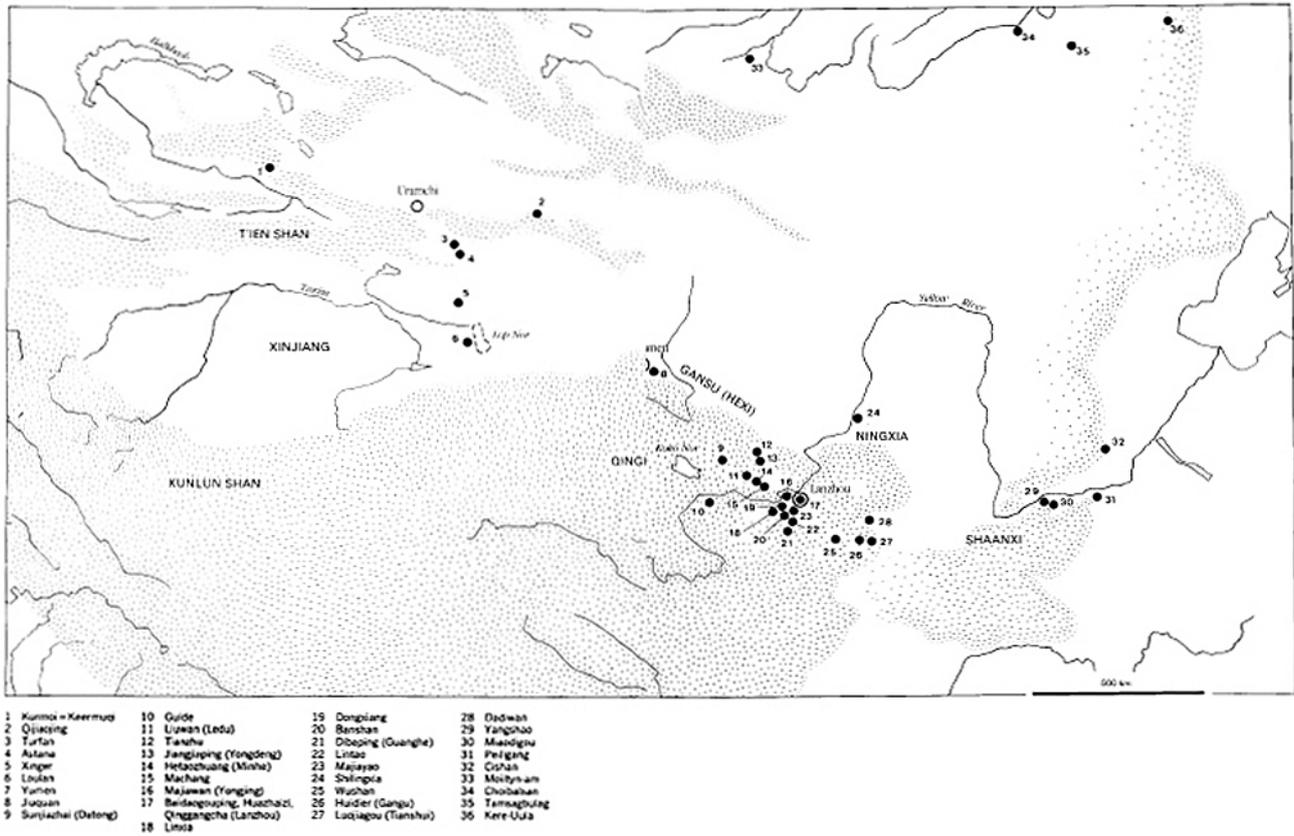
THE Neolithic cultures of the eastern parts of Central Asia developed in close contact with neighbouring areas. To the north and west there roamed hunters and food gatherers, using flint microliths – some geometric in shape – as tools. We see a transition to food-production, particularly cattle-raising and agriculture, only in isolated pockets. But to the south and east the pattern was primarily that of sedentary farming which had moved away from the technical tradition of microlith manufacture and adapted to different cultural traditions. This latter cultural complex, of which the best known is the Yangshao culture, belongs entirely to the early agricultural zone with its characteristic features such as well-constructed dwelling houses and rich and varied painted pottery.²

The remains of various cultures in the vast area of the west or parts of China are divided in terms of production activity into two types – farming communities and those dependent on hunting and animal husbandry.

Farming communities in this area were found mainly in river valleys on the loess plateau. These communities belonged to the same system as the Neolithic culture and economy in the Yellow river valley. Their remains have been discovered in the oases in Xinjiang (Sinkiang), but they were sporadic and dated generally to late periods. The exact nature of their culture and economic activities is not fully known.

¹ See Map 6.

² An, 1979b.



MAP 6. Neolithic communities in eastern and northern parts of Central Asia.

The Dadiwan culture was discovered at Dadiwan in Qin'an, Gansu province in 1979. It is scattered mainly in the valleys of the Weihe and Jingshui rivers in Gansu and Shaanxi provinces. The actual distribution is probably wider. At Dadiwan itself and at the sites of Beiliu, Weinan, Shaanxi province, the Dadiwan culture was superimposed by the Yangshao culture. Specimens of the former have been dated by C14 to 5200 ± 90 B.C. and 4780 ± 90 B.C., while specimens of the latter have been dated to 5010 ± 120 B.C. They all prove that the Dadiwan culture is representative of earlier Neolithic sites.

The sites are generally not large, but they suggest the existence of settled life in villages. Also found were storage pits and burial grounds. There were stone shovels, stone knives and other farm tools. Among the funerary objects there were the lower jawbones of pigs. All this points to the considerable development of an agricultural economy. In addition, the discovery of a quantity of deer bones shows that hunting remained an important factor of subsidiary production.

The stone tools found here were well chipped or polished. They include choppers, scrapers, axes, spades and knives. Bone instruments such as arrowheads, awls and chisels were

finely polished. Spindle whorls, made of pottery, testify to the emergence of weaving. The pottery is rather coarse and its colour is not even (Fig. 1). The pottery vessels, dominated by red and greyish-brown pottery, are decorated with a crosscord pattern. Some are polished or plain. It is worth noting that there was a small amount of painted pottery. The rims of the pots were occasionally painted in red. In some cases, the vessels were painted inside with simple double zigzag patterns. Painted pottery seemed to be in the embryonic stage. The shape was simple. The vessels mainly include bowls with a round bottom or three legs, and three-footed *guan* vases with deep bodies. There were also round-bodied *guan* vases with round bottoms and bowls with a ring foot. These vessels possessing striking characteristics were rather primitive when compared with those of the Yangshao culture that came into being later.



FIG. 1 Painted pottery vase from Dadiwan, Qin'an County, Gansu. Yangshao culture.

The newly discovered Dadiwan culture has yet to be studied. It lies on the loess plateau, bordering the Peiligang culture and the Cishan culture on the north China plain. These cultures share a general character to a certain degree; for instance, they were all agricultural communities and contained three-footed pottery *bo* vessels (Fig. 2a). Even the painted

potsherds decorated with a zigzag pattern found at Cishan were similar to those found at Dadiwan. Their C14 dates are quite close to one another, representing earlier Neolithic sites. What is more important, they had direct ties with the Yangshao culture with respect to stratigraphic succession and cultural factors, offering grounds for the origin of the Yangshao culture. From the discovery of these three early cultures we know pretty well that 7,000–8,000 years ago, the Yellow river valley was dotted with developed agricultural communities marked by different cultural features. Earlier sites have yet to be found.

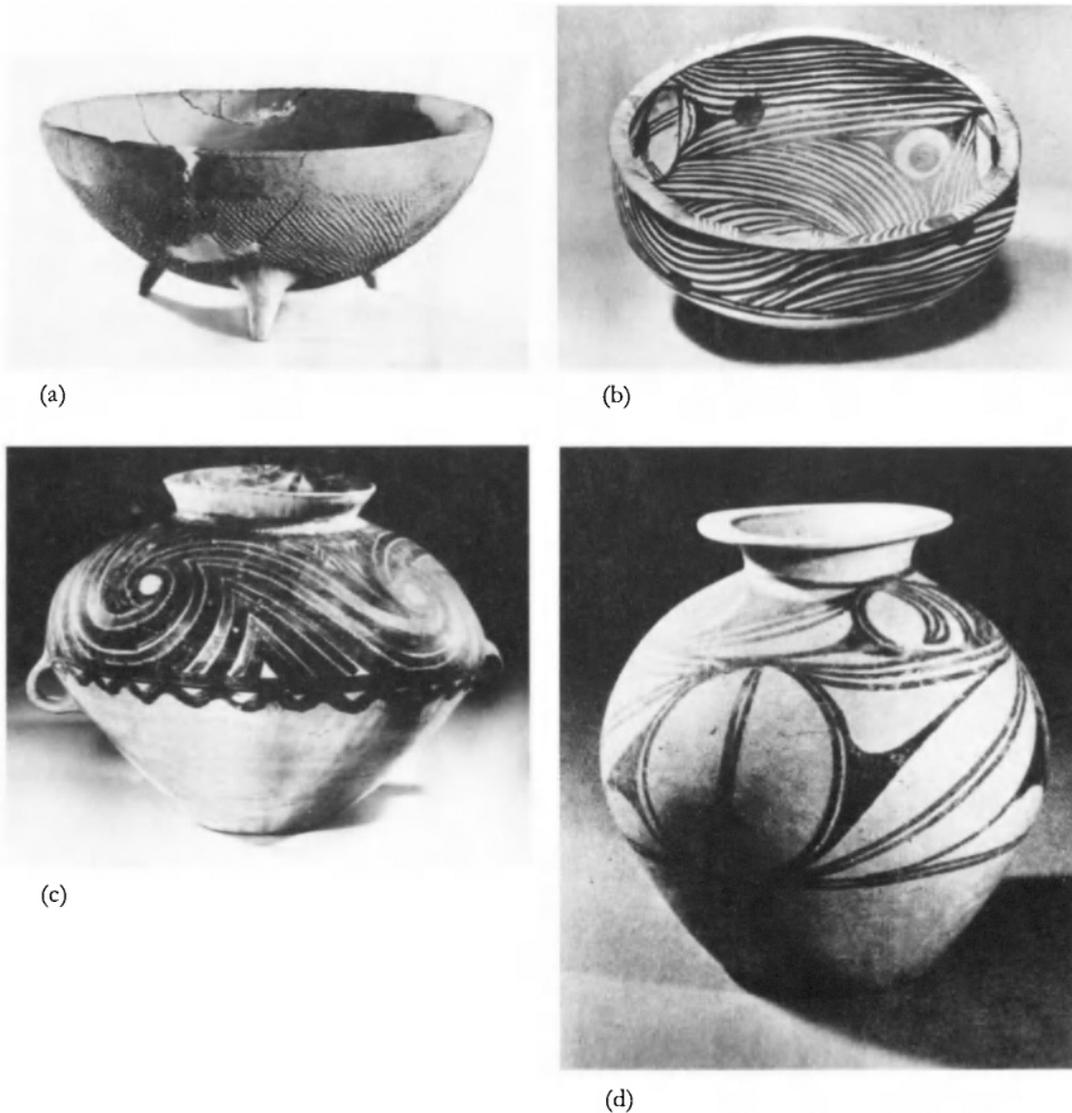


FIG. 2 (a) pottery *bo* vase with three legs from Dadiwan, Qin'an County, Gansu; (b) painted pottery *pen* basin from Majiagua in Yuzhong County, Gansu – Majiayao type; (c) painted pottery *guan* vase from Dibaping in Guanghe County, Gansu – Banshan type; (d) painted pottery *hu* vase from Shanwanjia in Qin'an Country, Gansu.

Remains of Majiayao culture are scattered mainly in Gansu, Qinghai and Ningxia in the upper reaches of the Yellow river. It was once known as the Gansu Yangshao culture, so as to be differentiated from the Yangshao culture in the middle reaches of the Yellow river. As a local variant of the Yangshao culture, it was represented by the Majiayao sites at Lintao, Gansu province and thus called the Majiayao culture.

Most remains of communities have been found on the second terrace of the river valley. They are similar to those of the Yangshao culture in scope and economic life. The Majiayao culture can be divided into four types, the Shilingxia, the Majiayao (Fig. 2b), the Banshan (Fig. 2c) and the Machang, representing different stages of development. Generally speaking, it originated in the upper reaches of the Weihe river in eastern Gansu and developed on the basis of the Miaodigou type of the Yangshao culture.

The remains of the Shilingxia type are scattered mainly in the upper reaches of the Weihe river in Gansu province. It also extended to the valleys of the Xihan, the Hulu and Taohe rivers. Its western boundary reached the eastern end of the Hexi corridor. Remains of Shilingxia type have also been found in the vicinity of Tianzhu. Stratigraphic evidence has been discovered explicitly at Shilingxia in Wushan county, Luojiagou in Tianshui county and Majiayao in Lintao county. The lower stratum belongs to the Miaodigou type and the Majiayao type, which shows their relationship.

The most distinct characteristics of the pottery indicate a transition from the Miaodigou to the Majiayao type. Most of the vessels are red, but some are orange. The decorations are painted basically in black, consisting of geometric and zoomorphic designs. The former made up delicate patterns of lines, curves, triangles, dots and impressed checks. The latter form stylized bird heads in vivid lines. There are also cord impressions and applied decorations. The major types of pottery vessels, such as bowls, basins and small-mouthed vases with pointed bottoms, followed the basic forms of the Yangshao culture. Small-mouthed and high-necked pots, however, were a new creation, followed by the Majiayao culture. An analysis of its designs and of the shapes of pottery vessels indicates that the Shilingxia type, which spanned the preceding and the following phases, probably belongs to the early stage of the Majiayao culture.

Few remains of stone and bone instruments have been found. Their characteristics are not striking. At Huidier in Gangu county a square-shaped pottery house was unearthed with a square cone-shaped roof and a rectangular door, which was probably representative of actual buildings on the site. At least it can help us restore the house construction of the Majiayao culture and its basic form. Remains of the Majiayao type have a fairly wide distribution, extending from the upper reaches of the Jingshui and Weihe rivers in eastern Gansu, to the upper reaches of the Yellow river in the Guide basin in Qinghai province

in the west, to the Qingshui river in Sichuan province in the south. In the Hexi Corridor, they are limited to Yongchang, Wuwei and the surrounding areas in the eastern section of the corridor. Their distribution is wider than those of the Shilingxia type. Besides the relative age, which can be determined by the aforesaid stratigraphic evidence, the six C14 dates give a range of about 2700–2300 B.C. The Majiayao type is therefore later than the Shilingxia type but earlier than the Ban-shan type.

The size of settlements was from 10,000–100,000 m². More than thirty dwelling sites have been excavated at Linjia in Dongxiang county and Jiang-jiaping in Yongdeng county, both in Gansu province. Houses built in the earlier period were usually marked by square semi-subterranean structures. Each house had two kitchen ranges, which were linked together, and a doorway with steps. However, houses built in the later period were usually square or rectangular surface structures. Foundations were dug and walls were built. Each house had one kitchen range. In some cases, a house was separated into two or more rooms. In other cases, a smaller hut was built beside the door of a bigger house. Storage pits were found near the houses. Remains of carbonized grains of millet were found in one storage pit, indicating that millet was the principal crop in those days. Remains of kilns were discovered at dwelling sites. Dug out of the undisturbed earth, the kiln chamber had a hole in front and three flues slanting inwards. The top of the kiln was made of straw and earth, about 1 m in diameter. They belong to the more advanced vertical kind of kilns designed to ensure the quality of pottery.

Tombs are generally found in the vicinity of dwelling sites. A total of more than twenty vertical tomb pits and a dozen pottery urns for small children have been unearthed. This discovery proves that it is groundless to regard the Majiayao type as a dwelling site, and the Banshan types and the Machang type as burial grounds. The manner of burial was different. In Gansu, the dead usually lay in an extended supine position, while in Qinghai, secondary burials were popular. Traces of a wooden coffin were found in a large tomb at Hetaozhuang in Minhe county, Qinghai province. Among over seventy pottery vessels unearthed, one-third are painted. In ordinary tombs only a few vessels were found, most of which were painted. It is interesting to note that in the two tombs of a couple unearthed at upper Sunjiashai, Datong county, Qinghai province, was found the mouth and neck of a painted pot in the husband's tomb, while the body and bottom were in the wife's tomb. Put together, they form a whole vessel. Obviously, the pot was broken on purpose and its pieces were then placed in separate tombs. They suggest a special burial custom.

The production instruments consisted mainly of stone tools. The polished tools include spades, adzes, knives and discs. Among the finds are typical micro-blade tools and bone knives, indicating the continuation of the tradition of microlithic technology. There are

also bone implements such as spades, awls, arrowheads, needles, pottery, knives and spindle whorls. The art of pot-making attains a fair degree of excellence. Coarse vessels are usually decorated with cross-cord impressions and applied decoration similar to those of the Shilingxia type. The clay is orange in colour. The vessels are finely polished, and are painted in black. In a few cases, white paint was applied between black designs. The decorations consist of parallel lines, garland borders, triangles with curved lines, spirals, circles, dots and checks, forming rich and varying patterns. With the regular layout, elegant and symmetrical, the new designs are unique. The decorations also include stylized frogs, fishes and birds, and even a design of five people joining arms dancing – a rare work of art from life. Pots, vases and jars are usually painted from top to bottom, while in some cases, only the upper part of these vessels is painted. The inner part of bowls and basins is painted in general; their rims are also painted. In design and shape, the painted pottery of the Majiayao type inherited the traditions of the Shilingxia type and made new progress.

The extent of the Banshan culture was slightly smaller than that of the Majiayao type. It was confined generally to certain parts of Gansu, Qinghai and Ningxia, basically in the upper reaches of the Yellow and Weihe rivers and their tributaries, and in the Hexi corridor they extended only to areas east of Yong-chang. Some tombs were intruded by remains of the Machang type, offering explicit stratigraphic evidence. The six C14 dates available give a range of 2200–1900 B.C.

Remains of the Banshan type were formerly regarded as representative of cemeteries, but this is clearly a mistake. It is a fact that from that period onwards, dwelling sites and cemeteries were universally separated. Dwelling sites could be found near cemeteries. For instance, cultural deposits of the Banshan type were discovered from the plain adjacent to Banshan burial grounds. Three square-shaped semi-subterranean houses were discovered at Qinggangcha in Lanzhou, Gansu province, their doors facing east. Remains of fireplaces were visible. The eight post holes were found in the walls and in the centre of each of the three houses, reminiscent of a wooden structure with its roof and walls plastered with a mixture of straw and clay. Storage pots and sites of kilns were also found near the houses.

More than 4, 000 tombs have been found over the past thirty years or so, most of them being rectangular shaft tombs. In some cases burial furniture was used, for instance, oblong or trapezoid wooden coffins made of planks or logs. For stone coffins, the sides were formed by whole stone slabs, while the cover and the bottom were made of a number of small stone slabs. The burial rites are varied. In most cases, the body lay on its side in a flexed position; sometimes the body had been reburied. In some cases, the body lay in an extended, supine position. There were also a number of collective burials, each tomb containing the bodies of two to seven persons, and joint tombs of two or three were

commonly encountered. Most funerary objects were pottery vessels, 80–90 per cent of which were painted. Each tomb had seven or eight vessels, and in some cases, the number rose to twenty or thirty. They were found in rows by the side of the skeletons. Small pottery vessels were usually placed near the skulls. As regards other funerary objects there is a slight difference between the male and the female. For example at Dibaping in Guanghe county, Gansu province, stone axes, adzes, chisels and other tools of production were found in men's tombs, while spindle whorls made of stone or pottery were unearthed from women's tombs. This probably suggests a division of labour in society, with men engaged in farming and women specializing in weaving. Rich burials for women were customary. For instance, buried in Tomb No. 48 at Dibaping was a middle-aged woman. The funerary objects there include 17 pottery vessels, a spindle whorl of stone and 250 bone beads. Buried in Tomb No. 235 at Huazhaizi, in Lanzhou, was an adult female. Among the funerary objects were 18 pottery vessels, a spindle whorl of stone and 448 bone beads. The rich burial was a sign of respect for women, and indication of a matriarchal clan community.

Stone tools unearthed from the dwelling sites are chipped discs and scrapers and polished stone axes, chisels and knives. There were also knives of pottery and other farm tools. These indicate that farming was the main occupation. However, microblades and bone knives inlaid with microblades were also found in the tombs. There were also considerable numbers of stone balls, bone arrowheads and a bone quiver, which shows that hunting still occupied a significant place in economic life.

Beautifully shaped pottery vessels were marked by a rich variety of designs and unique styles. Coarse pottery vessels generally bear applied ornaments, but some are cord-marked or undecorated and simple in form. The clay of the painted pottery was fine and the surface was burnished. Both black and red paints are found in the Hexi corridor. Some remains of the Machang type were found even at Jiuquan and Yumen. Stratigraphically the Majiayao is superimposed on the Machang type which intruded into the tombs of the Banshan type in numerous cases. Seven C14 dates give a range from 2000 to 1700 B.C., indicating that the Machang type belonged to the late stages of the Majiayao culture.

A total of fourteen houses have been unearthed at Majiawan in Yongjing county and Jiangjiaping in Yongdeng county, both in Gansu province. Most of them are round or oblong semi-subterranean buildings. Some consist of two or more rooms. Inside the houses, the flat, hard floor is plastered with a mixture of straw and clay and red clay, on which there is the base of a circular fireplace. Generally speaking, storage pits were found inside or near the houses. Pottery kilns were usually found in groups of two or three at a single dwelling site. At Baidaogouping in Lanzhou, archaeologists have discovered twelve kiln sites, all built in the undisturbed soil. About 1 m in diameter, each of the kilns had nine fire holes

which entered the kiln chambers through flues. They are similar in structure to those of the Majiayao type, but improved.

Tombs of the Machang type discovered are most numerous, totalling 1,200. They are usually clan cemeteries (for collective burials). Small children were also interred there. Most of the tombs are shaft pits. Some are oval with a ramp, set up with a vertical plank or a stone slab. A well-made coffin was unearthed at Liuwan in Ledu, Qinghai province. Oblong in shape, it was made of planks or semicircular slabs of wood, linked together by three horizontal planks, dovetailed with mortises and tenons on both ends. In some cases, planks or twigs were found beneath the skeletons. The burial rites varied in different places, including extended supine position, flexed burial on the side, secondary burials, prone burial and adult joint burial. Funerary objects ranged from one or two dozens of pieces. This is probably an indication of difference between the rich and the poor. Take Tomb No. 564 at Liuwan: among the ninety-five funerary objects, ninety-one pieces are pottery vessels, the rest being stone tools and turquoise ornaments. However, there are not many funerary objects in ordinary tombs. Pottery vessels were usually laid near the skulls or on one side of the tomb, but large-sized pottery was put near the entrance. Shells and imitation shell *guan* vases of stone were also used as funerary objects. At least they serve as witnesses to the ties of communication and trade with the south-eastern coastal areas.

Of the stone tools unearthed from dwelling sites the polished stone instruments such as axes, adzes, chisels, knives, sickles, querns and pestles predominate; all are finely polished. There are also microblades, scrapers, and bone knives with notches. Among the ornaments are bone beads, stone balls and turquoise objects. The only exception is an incomplete bronze knife found at Jiangjiaping. This shows that bronze was rare in the Machang culture.

Most of the pottery vessels are coarse, only a very few being well made. Designs of painted pottery became simpler. Most coarse pottery vessels are undecorated and simple in form. There are still cord impressions and applied ornaments. Some vessels are coated in red and painted in black and red. Chevron designs are rare. Designs marked by four large circles are common. There are also varied designs of human images, broken lines, triangles, and rhombic, check and coil designs, but they are slightly simpler than those of the Banshan-type pottery. A painted pot unearthed at Liuwan features a lifelike image of a female nude which was a combination of painted pottery and sculpture – a great work of art. Over 100 varied marks are found on the lower part of the painted pottery. The *bu* vase (Fig. 2d), *guan* vase, *pen* basin, *dou* vessel and cups are most common. A rare cooking vessel like a tripod was unearthed at Hualinping. It is probably a result of further cultural exchanges with the central plains. Both the shapes and the designs of the Machang pottery manifest close ties with the Banshan. However, the technology of painted pottery was in

decline. Eventually, the Majiayao culture was replaced by the new and developing Qijia culture which belonged to the Chalcolithic Age.

Neolithic remains in Xinjiang were first found at the turn of this century, but they were collected mainly from the surface.³ Generally speaking, no clear picture has been obtained of the sites, cultural strata and their associations. In southern Xinjiang, according to the finds which have been collected so far, the remains are distributed mainly in hillside fields around the Tarim basin. Remains have also been found near the Lop Nor and the Kum river. In northern Xinjiang, they have been found mainly at the northern and southern foot of T'ien Shan. These finds are all limited to oases. As a result of changes in natural conditions, however, some places have become desolate.

Finds have been divided into three categories represented by microliths, tools and painted pottery, all being regarded as the Neolithic culture. However, the latest study proves that they belong to different eras. They possess their own characteristics in terms of culture and the type of economy. Remains represented by microliths are scattered extensively (Fig. 3). They persisted for quite a long period and largely belonged to the Neolithic period. Animal husbandry and hunting were the main sectors of economy. Traces of farming were not very clear. Remains represented by pebble tools and painted pottery date from the Chalcolithic Age or the Bronze Age. Farming was the chief sector of production and economy. But there are still missing links of Neolithic agricultural communities.

It is worth noting that Xinjiang lies in the hinterland of Asia marked by a dry climate. The farmland has to be irrigated by water from melting snow or drawn from wells. No similar measures of irrigation dating from the Neolithic Age have been discovered yet. Of course, we cannot conclude that there were no farming activities at all in the area in

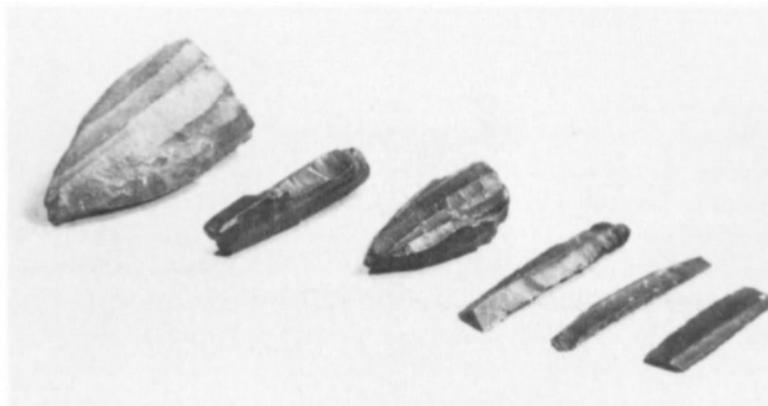


FIG. 3. Microliths from Astana in Turfan County, Xinjiang.

³ Ibid.

the Neolithic Age. At least the natural conditions and the cultural remains represented by microliths are sufficient to prove that it is likely that farming activities emerged in the area at a later stage.

Sites of Neolithic agricultural settlements on the Tibetan plateau have been found only in river valleys in the south and east of the country. The climate in these low-lying areas is fit for the development of agriculture. Today, they are still the principal farming areas in Tibet. Neolithic sites and relics have been discovered in the suburbs of Lhasa, Nyingchi county and Medog county in the Tsangpo (Brahmaputra) river valley. The area can be divided into two parts. Nyingchi county is the centre of the northern part, including Lhasa, and relics there have been collected from the surface. Cultural deposits have also been found in individual cases, but they are neither deep nor connected. Though agricultural settlements were formed, they were far less developed than those on the loess plateau. The stone tools include discs, choppers and net weights as well as polished axes, chisels and knives. Elongated stone knives with perforations used for harvesting are identical to those found on the loess plateau. Pottery vessels consist mainly of coarse brown ware, and only a few of unburnt clay. There were also black pottery vessels with a burnished surface, decorated with cord impressions, incised patterns and open work. The shapes include bowls, *guan* vases and *pan* vessels. Fragments of spouts have also been found. The quantity of finds is small and their cultural character is not altogether clear, but they are similar to the Qijia culture in Gansu and Qinghai.

The southern region has Medog county as its centre. Here have been found, at seven sites, a number of polished stone tools, including axes, adzes, chisels and spindle whorls. Polished with great care, they are certainly tools for cutting trees, tilling the land and weaving. Coarse postsherds with cord impressions and incised patterns have also been discovered. Marked by its subtropical climate, the low-lying area here is ideal for farming.

A well-preserved settlement site has been discovered at Karuo in Qamdo, in the Lancang river valley in eastern Tibet. It lies on the second terrace at the confluence of the Lancang and the Karuo rivers. Being 3,100 m above sea-level, the site is about 10,000 m² in area and the cultural layer is over 1 m thick. Both semi-subterranean and surface houses have been discovered. Judging from the existing post-holes they were wooden structures with earthen or stone walls. The commonest finds are chipped stone tools such as choppers, discs and scrapers. Polished stone tools are more rare, and include axes, chisels, knives and arrowheads. There was also a considerable quantity of microliths and bone hafts inlaid with microblades. They are basically identical in shape with those found in the Yellow river valley and in the north. Most pottery vessels consist of coarse ware, and are only of unburnt clay, incised patterns are predominant, but cord impressions are also seen.

There are a small number of painted pottery vessels. Marked by simple shapes, the vessels include *pan* basins, *bo* vessels and *guan* vases. The C14 dates range from 3300 to 1800 B.C., indicating that the sites covered a long period of development. The stabilization of a settled life and the emergence of farming tools and domesticated pigs prove that farming was the foundation of the economy. The discovery of a good many bones of wild animals confirms that hunting still played an important role in the economic life. The pottery vessels found here are in shapes and designs similar to those found at the site of Dadunzi in Yuanmou county, Yunnan province, in the middle reaches of the Lancang river. However, the painted pottery, elongated stone knives with multiple perforations and microliths prove that they had certain ties with the Neolithic culture of the Yellow river valley.

Microliths have a wide distribution in the western part of China. Strictly speaking, microliths were chipped in an indirect way, involving special craft and skill, and they were limited to microcores and blades as well as certain artefacts processed from microblades. In the past, small stone tools apart from microcores and blades were habitually known as microliths and even imprecisely called a 'Microlithic Culture'. This is not appropriate. Microliths made on microblades can be called microliths for short. It is likely that this tradition originated in the Yellow river valley during the Late Palaeolithic and prevailed into the Mesolithic. With the development of farming microliths in the Yellow river valley declined abruptly. Apart from a number of semi-husbandry and semi-farming sites, there were only a few microlithic sites, but in the desert and pasture areas to the north, microliths were still in use after the emergence of metal tools and vessels. This shows that microliths continued to be used for hunting and animal husbandry for a fairly long time in these parts.

In the western part of Inner Mongolia more than eighty microlithic sites have been found in the vast desert or semi-desert areas extending from the Helan mountain ranges⁴ to the east of the Tarim basin. Most of the cultural relics were exposed in shifting sand-dunes. Trial diggings have been conducted at certain places, but no cultural deposits have been unearthed. Therefore, it is rather difficult to give a date to these localities in this area. The distribution of remains proves that Neolithic people had temporary settlements along rivers and lakes and lived by hunting and livestock breeding. Today, however, most of these lakes have dried up or become saline. For instance, quite a number of Neolithic sites are distributed on the shores of Sogho Nor lake. The extent of the lake remains unchanged, but the water is now too salty to drink. This indicates that the environmental conditions in this area were much better than today. Therefore, we can assume that the dwelling sites were scattered in oases, not in desert areas as today.

⁴ Maringer, 1950; Teilhard de Chardin and Young, 1932.

The majority of cultural relics are of stone. Most common are microliths including stone cores in the shape of cylinders, cones and wedges, microblades are unusually plentiful. Traces of retouch or use can be seen on one or both sides. Many were probably hafted in bone knives. Some microblades were worked on both sides and shaped into drills. There are also plenty of end-scrapers and round-scrapers. However, stone arrowheads are few. As a striking feature, there was a quantity of large chipped stone tools such as choppers and scrapers. There are also stone axes and adzes retouched on both edges, and a small number of querns and pestles. Potsherds are also scarce, they are plain and cord-marked, and probably belong to a later stage. In some places archaeologists have discovered a small number of beads made of ostrich egg-shells, which are believed to be characteristic of the Mesolithic.

The well-made stone drills and the rich range of large polished stone artefacts are local features. Stone arrowheads and pottery vessels are rare. This has something to do with the constant movement of tribes for hunting and livestock breeding. The great majority of remains belong to the Neolithic. It is also possible that remains at certain places may be dated earlier – to the Mesolithic. These chipped-stone tools, which were roughly associated with microliths, cannot be dated to earlier times.

Remains represented by microliths are also scattered quite extensively in Xinjiang.⁵ More than thirty sites have been found at the southern and northern foot of the T'ien Shan, the border of the Tarim basin, in southern Xinjiang and even on the shores of Lop Nor and the Kum river. They have also been collected from the surface. A clear picture of their cultural deposits and settlements is not yet available. The distribution of sites is similar to that of the western part of Inner Mongolia. Some (those in the vicinity of Lop Nor, for example) have become desolate areas today. As a result of wind erosion, sites are unusually exposed on the surface. Cultural deposits are absent. Well-preserved dwelling sites, however, will probably be discovered at the southern and northern foot of the T'ien Shan and the northern foot of the Kunlun.

The sites here are strikingly characterized by microliths. They can be divided into at least two types. For the first type, microliths have been found without pottery. So far only one site has been discovered at Qijiaoqing. For the second type, microliths have been found with pottery. But in most cases, the associated pottery is scarce. Furthermore, one cannot exclude the possibility that the microliths constitute a separate group. In addition, there are numerous finds of stone laurel-leaf points which are unique to Xinjiang. The sites are scattered fairly widely, probably representing a later date. Now, we shall illustrate the situation with a few typical sites.

⁵ An, 1978; Bergman, 1939; Huang, 1948, 1958.

The site of Qijiaojing lies to the north of the Lanzhou-Xinjiang highway in the vicinity of Hami, eastern Xinjiang. In the surrounding areas there are plenty of fixed sand-dunes covered with Chinese tamarisks. The stone tools that have been collected in the area can be divided roughly into three categories:

1. Microliths, which are fairly plentiful, including stone cores shaped like the keel of a boat, cone-shaped stone cores and microblades.
2. Flake tools, which are most plentiful. Flakes chipped directly from stones are shaped into side-scrapers and end-scrapers. There are also many large-sized, thick, heavy stone flakes which are processed on one side to serve as choppers. There are also plenty of ordinary unprocessed rectangular flakes, but which bear traces of use.
3. Core stone tools. Only a pointed stone axe has been discovered. It is massive and 31 cm in length. Here, pottery is absent, but microliths are quite typical. The large-sized flake tools are more or less primitive in nature. In particular, the stone core shaped like the bottom of a boat is representative of early microlithic traditions, whose date probably ranges from the Mesolithic to the Early Neolithic Age.

The site of Xinger lies at the northern foot of the Kuruktag mountains on the north-eastern border of the Tarim basin. From the surface one can see grey traces of dwellings which are 1–5 m in diameter. Also visible are remains of two fireplaces hardened by fire which are slightly higher than the ground. One of the dwelling sites contains cultural deposits 10 cm thick. As man led a settled life on a semi-stable basis, hunting and animal husbandry seemed to be the principal source of economy. But it did not exclude the possibility that farming had taken shape already. Remains of the same character are scattered quite extensively at Loulan, on the banks of the Konqi (Kum) river, at Astana in Turfan, and in other places. Although quite a lot of remains have been collected, their stratigraphic relationships have not yet been ascertained. The polished stone axes and adzes collected around Lop Nor are rarely seen at other sites, but they are likely to be remains of a later period.

The traditions of microliths in Xinjiang are basically identical with those of Inner Mongolia. However, they possess a certain regional character. The early remains represented by Qijiaojing share, to a greater extent, the general character of those in the eastern part of China. For example, the absence of stone cores shaped like the keel of a boat. However, the plentiful stone points in the shape of laurel-leaves are unique to Xinjiang. As for the triangular stone arrowheads which were common in eastern Inner Mongolia, only two examples have been found in the vicinity of Lop Nor. They were far less common than the laurel-leaf arrowheads. Such stone arrowheads were in use for a long period, probably

lasting up to the second–fifth centuries B.C. For instance, they have been unearthed from tombs at Kurmoi, Altay Xian, and at Loulan, near Lop Nor. They are flat-based and roughly made, but they have virtually inherited the form of the laurel-leaf arrowheads. Since typical microliths are rarely seen at Bronze Age sites, the tradition of microliths in the area is not later than the Neolithic.

Conclusion

Up to now the western regions of China have produced very limited material for correctly assessing the cultural tradition. Whatever information is known shows a cultural link with the neighbouring areas to the north and west but as we go eastwards, particularly to the Gansu area, the influence from the culture of the Yellow river did produce some results. While the relations of the flint industry and of the microliths in Xinjiang and Inner Mongolia show local variants, the Gansu cultural zone presents an adoption of the cultural features of the east.