## THE MUMMIES OF EAST CENTRAL ASIA

BY VICTOR H. MAIR

N 1988, WHILE VISITING the Ürümqi Museum in China, I came upon an exhibition which changed the course of my professional life. At the time, my academic career focused on the philological study of manuscripts from caves at Dunhuang, a site where the Silk Road splits, proceeding to the north and south. But after I walked through black curtains into a dark gallery that day, my fascination with the mummies of East Central Asia began. At first, I thought the exhibition was a hoax, because the mummies looked so lifelike. The colors of the textiles they wore were vibrant. The associated bronze tools and other objects from 3,000 to 4,000 years ago could not, I thought, have been found in this region at such an early period. At that time, I was not an archaeologist, but my general knowledge of Chinese history and Central Asian sites indicated that this did not make sense. I stayed in that gallery for probably five hours

I went back to my life at Penn as a scholar of medieval Buddhist literature and Chinese popular Buddhist literature. In the fall of 1991, while on sabbatical, I read of the discovery of Ötzi the Iceman in the Alps near the border between Austria and Italy. Ötzi, over 5,000 years old, had been naturally mummified in the Schnalstal glacier. That afternoon, I started making calls to organize an expedition to China to study the mummies that had been naturally preserved there. Since 1993, I have traveled to China numerous times with different kinds of scholars—archaeologists, geneticists, textile specialists, bronze experts—to study the Central Asian mummies and the cultures they represented.

The Beauty of Xiaohe is one of over 30 well-preserved mummies found at the site, and certainly the most famous.

injiang Institute of Archeology Collection

## A HISTORY OF THE REGION: WHERE THE MUMMIES WERE DISCOVERED

During the late 19th century, a large region of East Central Asia was forcibly incorporated into the Qing Dynasty (1644–1912) through conquest by the Manchus. As a result, the region became known as Xinjiang, which means "New Borders." This area—referred to by the local Uyghurs (a Turkic ethnic group) as Uyghurstan or Eastern Turkistan—regained its independence during the first half of the 20th century, after the collapse of the Qing Dynasty. The People's Republic of China (hereafter China), however, militarily asserted its claim as the legitimate successor to most of the lands of the Manchu Empire during the second half of the 20th century, and reincorporated this region as the Xinjiang Uyghur Autonomous Region (hereafter Xinjiang).

The region constitutes 1/6 of the whole of China and, apart from its obvious geostrategic significance, is blessed with oil and other mineral resources, has rich agricultural lands (especially for animal husbandry), and is where China tests its nuclear weapons. Consequently, since the late 1970s, the Communist government has made a concerted effort to develop the region.

Bezeklik Buddhist Ürümqi Caves Qumul Yingpan Qizilchoga Subeshi Yanghai Small Rive Tieban\* QURUK MTS Cemetery ■(Xiaohe Mudi) Dunhuand TAKLAMAKAN DESERT · oChārchān TARÍM BASIN Zaghunluq Northern Cemetery Cemetery RUNLUN MTS Selected Archaeological Sites Ancient Site a u M Medieval or modern city 300 n

This map shows archaeological sites in East Central Asia that are discussed in this article.

As is true elsewhere in China and other parts of the world, wherever the construction of buildings, roads, and other public projects is carried out, archaeological discoveries are likely to be made. There has been an endless succession of finds in Xinjiang from the Bronze Age and Iron Age right up to modern times. Because of its remoteness from the centers of early human development and its inaccessibility—in the form of harsh deserts surrounded by formidable mountains—East Central Asia was one of the last places on earth to be inhabited by humans. Thus, the Paleolithic and Neolithic periods are poorly represented. From the Bronze Age (beginning ca. 2000) BCE) onward, however, this region was a key locus of interaction between western and eastern Eurasia. During the 2nd and 1st millennia BCE, the overwhelming majority of the traffic was from west to east, but starting around the beginning of the Common Era, transcontinental exchange gradually shifted, moving now more from east to west. Of course, some individuals and groups continued to travel from west to east—for example, for trade, diplomacy, and religion. The result of this traffic, travel, and exchange across Eurasia was a great mixing of cultures and peoples, with East Central Asia constituting a vital contact zone at the very center of the continent.

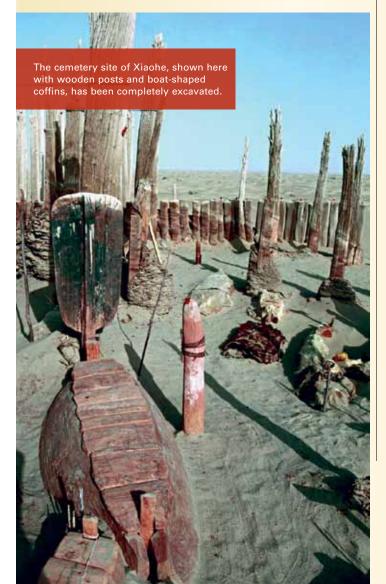
Despite the inhospitable climate—temperatures range from -40 degrees C to +40 degrees C (-40 to 104 degrees F)—

tens of thousands of individuals poured into East Central Asia and settled down in oases, intramontane valleys, and wherever they could eke out a living. Since this area was so far from the steppes, the coasts, and the major plains and river valleys of Eurasia, there was not much competition for the settlements after they were established. Still, having found an ecological niche and having devised unique means for subsisting there, the inhabitants thrived, leaving behind large cemeteries.

Hundreds of archaeological sites scattered across the length and breadth of East Central Asia date to every century starting from about 4,000 years ago. Many of these

sites are cemeteries of considerable extent, often with hundreds of burials. Nearly all burial grounds in the region have yielded abundant skeletal remains. Due to the local conditions (extreme aridity and sandy, highly saline soil), dozens of cemeteries around the southern and eastern edges of the Tarim Basin contain extraordinarily well-preserved mummies, together with the textiles in which they were dressed and the artifacts that accompanied them to the afterworld.

It should be noted that the so-called mummies of East Central Asia are actually desiccated corpses. Unlike Egyptian mummies, their lifelike appearance is due not to any artificial intervention on the part of those who buried them. Rather, it is the outcome of the special environmental conditions described above, with the best-preserved bodies being those who died in winter and were buried in especially salty, welldrained soils—all of which would inhibit putrefaction and prevent deterioration; after thousands of years, not even slight amounts of moisture penetrated these burials.



The early inhabitants of this region did not belong to a single genetic and linguistic stock, nor did they come from a single source. Instead, they entered the Tarim Basin at different times and arrived from different directions. In earlier periods, they came from the north, northwest, west, and southwest. During later periods, these migrations continued, but groups came from all directions.

Although the mummies from the first 2,000 years (2nd and 1st millennia BCE) were manifestly Caucasoid in appearance, careful physical anthropological and genetic studies reveal that they possessed a variety of characteristics linking them to diverse groups outside of the region. Beginning about the time of the Eastern and Western Han Dynasties (206 BCE-9 CE; 25–220 CE), the proportion of Mongoloid traits from the east progressively increased until now the Uyghurs, Kazakhs, Kirghiz, and other non-Sinitic (non-Chinese) peoples in the region are between a 30/70% and 60/40% Caucasoid/Mongoloid admixture. During the more than 50 years of China's rule over Xinjiang, there has been a dramatic increase in the number of people of Sinitic (so-called Han Chinese) descent entering the region, such that the previously admixed Turkic and other non-Sinitic peoples—who used to constitute over 90% of the population—now amount to only about 50%, with the other half made up of rapidly in-migrating Han Chinese.

## **CEMETERIES OF** EAST CENTRAL ASIA

The human history of East Central Asia begins about 3,500 to 3,800 years ago, with three sites just to the west of the fabled city of Loulan (also known as Kroraina in the Prakrit language, and Krorän in Uyghur), which lies to the northwest of the great dried-up lake known as Lop Nur. These sites are Gumugou (Qäwrighul), Tieban (Töwän), and Small River Cemetery 5 (SRC5, Xiaohe, Ördek's Necropolis). While the burials are laid out somewhat differently at the three sites—Gumugou features hundreds of wooden posts radiating in what may be a solar pattern, Tieban has shallow burials on terrace land, and Small River Cemetery 5 is a striking 7 m high mound of sand with five layers of burials in the middle of the desert—proximity of time and place, plus a number of common features, certify that Gumugou, Tieban, and SRC5 belong to a single



The Beauty of Xiaohe, as painted by Kailun Wang.

NE WILL NEVER KNOW what kind of person the Beauty of Xiaohe was in life. Death and time separate the Beauty from us like the shroud wrapped around her body. She seems to be part of two worlds: one of life, for she appears merely asleep, and one of mortality. The discovery of her mummy was a revelation, and yet much of her history remains an enigma. Even though she is thousands of years old, her youthful appearance is well-preserved. I was inspired to create this painting by the Beauty's famed attractiveness and the mysteries surrounding who she may have been in life. Three drafts were created: the first an observational study; the second, a woman gazing at the viewer; and finally, a third draft that was ultimately painted, portraying the Beauty in a serene atmosphere with an inexplicable sense of both gentleness and isolation. Although artistic liberties were taken with her appearance, she could not be without her trademarks: that rakish felt hat and long flaxen hair.

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cultural horizon. Among the shared features of these sites are plain-weave, natural color woolen mantles that serve as shrouds, felt hats with a feather inserted at the side, ephedra (a medicinal plant) deposited in the grave, finely woven grass baskets rather than ceramics, and evidence of bronze usage.

Among the most spectacular of the mummies from Small River Cemetery 5 (hereafter Xiaohe) is a female that has come to be called "The Beauty of Xiaohe" (*ca*.1800–1500 BCE) (see page 23 and above). She is more than a match for "The Beauty of Loulan," a mummy dated to *ca*. 2000 BCE that was found at Gumugou in 1980. The Beauty of Xiaohe is very well preserved and even retains flaxen hair and long eyelashes. She was wrapped in a white wool cloak with tassels and wore a felt hat, string skirt, and fur-lined leather boots. She was buried with wooden pins and three small pouches of ephedra. The Beauty of Loulan wears garments of wool and fur and a felt hood with a feather; she was buried with a comb, a basket, and a winnowing tray.

Among the other striking aspects of the Xiaohe cemetery are six surrogate mummies made of wood, with leather for skin, hair, and mustache sewn on, and a full set of clothing. Since all six of these artificial mummies are male, and all six were buried at about the same time, we may speculate that they represent men who died away from home and whose bodies were never recovered.

What is even more remarkable than the two "Beauties" or the connections between these three sites south of the



Victor Mair (top), INFZM.com (bottom)

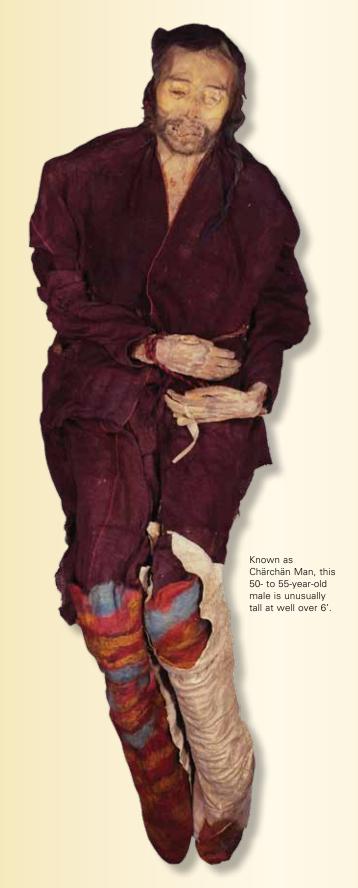
Kuruk (Quruk) Tagh range is that a fourth site, the Northern Cemetery (Beifang Mudi), has recently been discovered about 600 km to the southwest. The resemblances to Xiaohe, in particular, are so close that there can be no mistaking their consanguinity, although the Northern Cemetery is thought to be slightly earlier than Xiaohe. The puzzle that remains to be solved, however, is how these two closely related sites, which are so far apart on the map, came to resemble each other so nearly. Since the people of both Xiaohe and the Northern Cemetery seem to have entered the Tarim Basin with their cattle, ovicaprids (goats and sheep), and wheat—all of which were domesticated in Southwest Asia thousands of years earlier—a great deal more research is necessary to determine whether the people of these two sites embarked from a common staging ground and separately went their own ways, or whether one of the two groups sprang from the other.

Another noteworthy site with well-preserved mummies is that of Qizilchoqa ("Red Hillock" at Wupu ["Fifth Burg"]), about 60 km west of Qumul (Hami), an important, old Silk Road town in the far eastern portion of the region. Dated



This mummy, wearing a felt hat, was found in the Northern Cemetery.







to *ca.* 1200 BCE, the site of Qizilchoqa is distinguished by the presence of diagonal twill plaids, tripartite disk wheels for carts, and evidence of horse domestication. Again, the existence of all these cultural traits—with long distance connections to the west in such a remote desert location—calls for further investigation and explanation.

Returning to the Tarim Basin, we find along its southeast edge the most extraordinary burial ground outside the small village of Zaghunluq, in Chärchän (Qiemo) County. Dated *ca.* 1000 to 500 BCE, Zaghunluq is home to three of the most striking mummies from East Central Asia. Clad in rich burgundy wool clothing, the individuals buried in Tombs 1 and 2 may be a family, due to the similarity of their burial garments. The group consists of a man about 50-55 years old, a woman, and an infant. The man wears white deerskin boots and striped felt leggings; a solar or sheep's horn design is painted in ocher on his temples. The woman's face is also painted with spirals and triangles. The infant is wrapped in a shroud, with a soft, fluffy bonnet of blue cashmere; he or she was buried with a cow horn

cup and a sheep udder that may have been used as a nursing bottle. Because the soil of the Zaghunluq cemetery is particularly saline, all organic remains—human bodies, foodstuffs, and an astonishing variety of Late Bronze Age and Early Iron Age textiles—have been extremely well preserved.

Continuing westward along the southern rim of the Tarim Basin, we come to the ancient site of Niyä (called Jingjue Guo [Kingdom of Jingjue]). Here we find, along the Niyä River and into the desert, large cemeteries and extensive villages dating to roughly the 3rd to 4th century CE. The archaeological remains recovered from Niyä enable us to gain a vivid picture of life in a desert oasis nearly 2,000 years ago. Houses with elaborately carved woodwork, grape arbors, workshops for making nails, richly decorated Buddhist temples, and sealed wooden letters written in Kharoshti Prakrit all contribute to our understanding of a community on the outskirts of civilization.

By the Middle Iron Age, elements of Chinese culture such as lacquerware and fine silks began to show up as grave goods, although the local culture was fundamentally composed of a curious mixture of Indian, Western Classical, and West Central Asian characteristics. One very large wooden coffin from Niyä is of particular interest, since it contained a lovingly laid-out couple with exquisite silk face covers and an extremely rich assemblage of grave goods, including a bow and a quiver full of arrows, a knife in a sheath, pottery, goat/sheep legs, fruit and other food, a lacquer box, a bronze mirror, cosmetics, needlework, and other objects, all of which indicated the status and the interests of the deceased. An indication of the ethnicity of the ancient people of Niyä may be found in the fair-skinned individuals with light blond hair one comes across in the villages of this area still today.

Farther westward beyond Niyä lies the town of Khotan; outside of this large oasis is the ancient cemetery complex of Sampul (2nd century BCE to 3rd century CE), which stretches on for many kilometers. Like nearly all of the Bronze Age and Early Iron Age cemeteries encircling the Tarim Basin, the complex at Sampul lies on the gravelly tableland or terrace that is located between the desert floor and the foothills of





the mountains beyond, the source of the meltwater from the glaciers that sustains life in the oases. Among the unusual aspects of the Sampul cemetery are the mass burials, with as many as 170 bodies thrown in chaotically—perhaps the victims of a massacre. The hair of the individuals was mostly light brown, but the population was probably heterogeneous as it is today. The ancient inhabitants of Sampul undoubtedly had vibrant interactions with peoples of West Central Asia and even further west, since their magnificent textiles possess motifs, dyes, and weaves that are characteristic of cultures that lie in that direction.

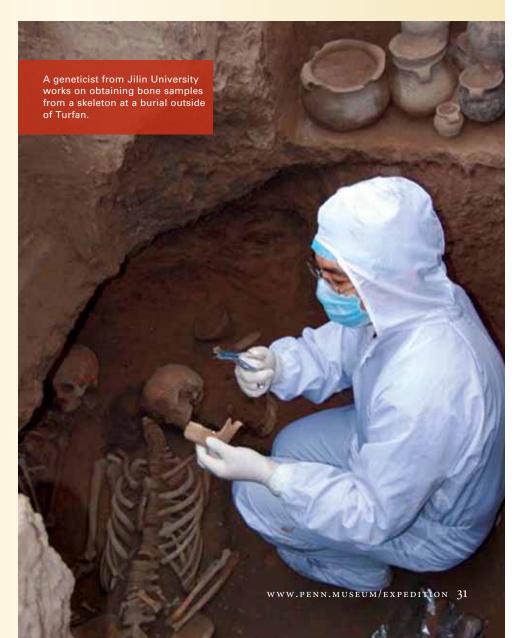
Probably the most intriguing mummies in East Central Asia are the "witches" of Subeshi, who wear very tall, pointed black hats that look like the iconic headgear of their sisters in popular culture. Subeshi is located to the east of the impor-

tant city of Turfan, in the basin of the same name, which is home to the second lowest spot (-154 m) on earth (after the Dead Sea at -422 m). There are also a number of impressive male mummies from Subeshi, including a man wearing a felt helmet (perhaps a soldier) and another man whose chest has been stitched up with horse hair in an early (4th century BCE) example of surgery in the region.

Subeshi lies high up in the Tuyuq Gorge. When we come down out of the mouth of the gorge and proceed along the floor of the Turfan Depression, we soon arrive at the site of Yanghai (or Yangkhay). Among the mummies from Yanghai are a little boy whose chin is tucked under on his chest, and a shamanlike figure smothered in cannabis, with bells on his boots. Another man from Yanghai had a well-preserved harp by his side.

Traveling southwest along the main trade route leading from Turfan, we come to the old caravan site of Yingpan. The tallest (nearly

6'6") and most resplendently garbed mummy—Yingpan Man— was discovered here. Yingpan Man's amazing clothing, with its Greco-Roman motifs and extravagant embroidery (see Sheng, page 39 this issue, for a detailed description of the textiles), marks him as a man of tremendous wealth and farreaching connections. Although his seriously decomposed body no longer lies within its sartorial shell (his remains were recently removed during conservation and study of his clothing, and have since been stored separately in Ürümqi), we know from earlier descriptions that he was a Caucasoid with brown hair. Considering his riches, international aura, and the strategic trading spot where he was buried, it is not unlikely that Yingpan Man was a Sogdian merchant. The Sogdians were a Middle Iranian people who were known as traders par excellence throughout Eurasia.



This has been a very brief overview of the amazingly wellpreserved mummies of East Central Asia. The significance of these ancient human remains is not simply their uncannily lifelike appearance. More important are the physical and material attributes which link them to cultures far and wide. Indeed, these mummies have filled what was previously an enormous gap in the prehistory and history of east-west cultural interactions. It was evident all along that civilizations from both eastern and western Eurasia had not arisen in isolation, but the mechanisms of cultural transmission were poorly understood. With the discovery of the Bronze Age and Early Iron Age mummies of East Central Asia, however, the actual agents of transmission—the people, together with their cultural attributes—have finally been recovered.

It is certain that the inhabitants of the Tarim Basin did not arise from the soil of the region, but that they came from elsewhere and brought with them the technologies, ideas, and practices of their homelands. Ensconced in their new surroundings, the early denizens of East Central Asia adapted and modified their cultures to fit the new local conditions they encountered. Careful examination of the mummies, using ancient DNA analysis and physical anthropology, as well as continuing study of associated artifacts, allow us to put together an increasingly clear picture of the origins of the Bronze Age and Early Iron Age peoples of the Tarim Basin and their interactions with the peoples of the surrounding areas.

Western explorers first came face-to-face with the desiccated bodies of the earliest inhabitants of the Tarim Basin over a century ago, while Chinese and Uyghur archaeologists uncovered increasing numbers of them beginning in the late 1970s. But it was not until the 1990s that serious international investigation of the mummies and their cultures occurred. During the coming decades more cemeteries with mummies will surely be discovered, and research on the findings from them will undoubtedly flourish, with the result that the prehistory and history of Eurasia and its peoples will become ever more comprehensible and distinct. A

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