

The Silk Road

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From the Editor

This year Mongolia celebrates the 800th anniversary of the *kuriltai* which marked the founding of the Mongolian Empire under its leader newly designated as Chingis Khan. Under Chingis and his successors Mongolia in the 13th century was for a time indeed at the 'center of the world.' As students of Inner Asian history know, at several earlier times in its history too, Mongolia had been the center of nomadic polities which encompassed large portions of Inner Asia and played a major role in the lives of their nomadic and sedentary neighbors. It is appropriate therefore that we devote much of this issue of *The Silk Road* to Mongolia.

I feel fortunate to have spent some six weeks in Mongolia last summer, initially as a lecturer and participant in the archaeological expedition co-sponsored by the Silkroad Foundation and the Mongolian National University, and then doing independent touring to view petroglyphs in the Altai Mountains of Mongolia's far west. This was my third and longest visit there, one made the more rewarding by my preparation in recent years to introduce students to Mongolian history. It is no accident that the final course I chose to teach before my recent retirement was one devoted to Mongolia, even though I hardly qualify as a 'specialist' on its history.

There are a great many reasons to learn about Mongolia — its present as well as its past. Rarely these days do more than a few weeks pass without the publication of yet another news article

extolling the natural beauties of the country, the warm hospitality of its people, or the mixed successes in facing the challenges of economic and political transition during the post-communist period. In a previous number of *The Silk Road* (Vol. 2, no. 1) Prof. Morris Rossabi, who has spent so much of his career enlightening us about the country's earlier history, provided an eye-opening overview of those challenges and the disappointments of the last decade and a half, which he analyzes in some detail in his most recent book. His observations were reinforced for me last year in Bayan Ölgii, a town of some 20,000 in Mongolia's far west, where what little manufacturing there had been collapsed with the end of socialist subsidies, and the town was without electricity for much of the day due to its inability to pay its electric bill. Our visit to the local museum was a curious post-socialist experience of viewing displays still glorifying heroic workers and revolutionaries, which we could see only because we had brought our flashlights.

Should all that sound depressing, on the contrary, seeing how people are imaginatively adapting to the challenges of transition is in fact inspiring. One comes away with an even greater appreciation of the ways in which traditional Mongolian life and values retain their vitality. For in fact the adaptations worked out millennia ago to live well in an often harsh natural environment have proved to be remarkably suited to sustaining the cultures out of which emerged political leaders whose organizational

abilities made Mongolia so important historically. It is no accident that the Kazakh, Mongolian and Tuvan herders of the Altai are tracing still the time-tested grazing routes and wintering in the same locations as their remote predecessors who left the glorious arrays of petroglyphs about which Prof. Esther Jacobson writes in this issue. Right now, herding is profitable, although the mix of profits, leading to a greater emphasis in some areas on the herding of goats, which destroy the regenerative power of the vegetation as they eat it, poses a threat for the future. So also does the impact of climate change. Here we are talking not just about the unseasonable winters of a few years ago, in which so many animals died, a frequent enough occurrence historically. It is possible that longer-term changes in precipitation have begun, where insufficient moisture means some pastures dry out much earlier than used to be the case, and eventually the rivers too may dwindle.

As David Purcell and Kimberly Spurr note in their excavation report below, the Orkhon River valley in north central Mongolia is an area of particular historical interest, since it formed the heartland of empires from the Xiongnu down through the Mongol. One may go to the Orkhon with at least a vague awareness of its importance — after all, many know that is where Karakorum, the Mongol capital so vividly described by William of Rubruck in the 1250s, was located. And many have heard of the Orkhon Inscriptions (Fig. 1), the earliest major collection of texts in Old Turkic, without necessarily associating them with the place where they may still be seen. Yet to visit the Orkhon is a revelation. How can it be, one may ask, that this remote region was the center of entities so important as the Turk or Mongol Empires? Today simply finding the right road to get there amongst the multitude of unpaved and unmarked tracks across the steppe

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Fig. 2. Wooden bridge across the Orkhon River, looking toward Tamiryn Ulaan Khoshuu (the hill in center).

can be a challenge for the urbanized driver from Ulaanbaatar (our driver managed to get lost...). That we ask such a question reflects merely how far we outsiders are removed from the context and time of those earlier empires, and from the values which animated their inhabitants.

Looked on from a different perspective, the Orkhon and its tributaries such as the Tamir are ideal country for pastoral herders (Fig. 2): rich in water and grass; easily traveled, where the topography that seems somewhat intimidating on a modern map turns out to be rolling hills or cut

by easily traversable passes. One can appreciate why the Xiongnu who buried their dead at Tamiryn Ulaan Khoshuu where we excavated would have chosen that site, on the south-facing slopes of a hill with an inspiring view out over the tree-lined, winding course of the Tamir River. We cannot know whether those Xiongnu had the same kind of aesthetic appreciation we do today, thrilling at the contrast of the late afternoon sun intensifying the green meadow next to the river against the backdrop of black thunderclouds on the northern horizon, or marveling at the sunset colors on the clouds of a rain squall passing to the south. Indeed, a place to perform the rituals of final farewells with the hope that the dead would remain undisturbed.

Undisturbed they were not, at least judging from the limited excavations so far undertaken, for most of the graves seem to have been looted. What remains suggests that at least the elite in the Xiongnu society of some 2000 years ago at Tamir were well-connected and well-to-do. We found abundant evidence that they owned Chinese lacquerware and prized Chinese bronze mirrors (see the articles below). Regarding the Chinese connection, readers should find the observations of Dr. Di Cosmo in this issue to be of particular interest, inviting us to re-think traditional conceptions about nomadic aggression and the

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Fig. 1. The Bilge Qaghan stele, containing one of the famous Orkhon Inscriptions, ca. 730 CE. In final stages of restoration and cleaning by members of the Turkish-Mongolian archaeological expedition.

raison d'être of the Great Wall. That the nomads acquired considerable wealth was further supported by the fragments we found, suggesting that they dressed their dead with gold jewelry and imported beads. So far we can only hypothesize that the Xiongnu of Tamir clothed their dead in silks and fine woolen fabrics, but the evidence of better-preserved Xiongnu burials provides a reasonable basis for such an assumption. These may not have been royal tombs, but they were tombs of those who lived well. The essay below detailing finds from the recent Russian excavations headed by Dr. Miniaev in Buriatia, just north of the Mongolian border, gives an idea of the riches of what likely was a royal tomb.

Any excavation leaves us with more questions than answers, among the more interesting ones being that of the ethnic composition of the Xiongnu. Dr. Batsaikhan's interesting speculations on that question in this issue will need to be tested by further analysis and the accumulation of much more data than we currently have, but most scholars today would probably agree that the nomadic confederations such as the Xiongnu were certainly multi-ethnic. Of particular interest for me in this connection is the issue of the degree to which agriculture may have played a significant role in their lives. There is a variety of interesting evidence that even somewhat farther to the north, growing and processing of grains was important for the Xiongnu, and in later centuries, we have an Arab traveler's account of Karabalghasun (Fig. 3), the Uighur capital located in the heart of the Orkhon Valley, which suggests it was surrounded by productive fields and villages. It is hard to know, of course, whether such an indication conflates what he saw in Mongolia with what he may have seen much farther west in the oases along the way. Are we dealing with a society in which

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Fig. 3. A portion of the vast ruins of Karabalghasun, the Uighur capital of the 9th century, located in the Orkhon valley just north of Karakorum.

certain of its peoples were valued because of their prowess at agriculture? Can we ever know? To what degree is it possible to determine ethnicity from grave goods?

The richness of Mongolia's past is yet little explored, despite important excavations by Mongolian archaeologists and their colleagues from a number of countries. In recent years, as we learn below from Prof. Tumen and her colleagues, the Department of Anthropology and Archaeology at the Mongolian National University has been laying the basis for what may emerge as a 'Golden Age' of Mongolian archaeology, by carrying out extensive survey work and undertaking excavations in new areas with striking results. Among the most impressive finds are those of the Chingisid burials near the border with the Inner Mongolian Autonomous Region in China. One of the highlights of last summer for me was a meeting we had with Dr. Navaan, whose interview about his new finds is in this issue. We were in the classroom/museum of his department at the University, surrounded by display cases of some of the remarkable finds from their expeditions. He brought out a few of the artifacts from his most recent season — among them the gold *vajra* and the gold filigree hat decoration with its inlay which we show below. I was very much reminded of the latter when viewing similarly crafted pieces at

the State Historical Museum in Moscow later in the summer. The objects there were mid-14th century finds from the territory of the Golden Horde (the western part of the Mongol Empire), further evidence for the vast scope of the cultural interchange which took place across Eurasia in the Mongol period.

This rich panorama of Mongolia is, of course, only part of the larger history of Eurasian culture and exchange. As a reminder of the rest, we include in this issue news of a still poorly known collection of Khotan antiquities in Munich, which is being carefully catalogued by Dr. Jäger. Our next issue will shift focus to the west, when we will have several articles devoted to Bactria and Afghanistan.

It is unfortunate to have to conclude here on sad note. As we were finalizing this number, the news came from Panjikent that we have lost an inspirational scholar and true friend, Dr. Boris Marshak. His contributions to our knowledge of the Silk Road were immeasurable. A short appreciation follows, and we hope to publish a longer one in the future.

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Boris Il'ich Marshak

July 9, 1933-July 28, 2006



Photo courtesy of the State Hermitage Museum

Boris Il'ich Marshak, one of the preeminent scholars of Central Asian culture, died in Panjikent, Tajikistan, on July 28, 2006, and was buried the following day just outside the walls of that important Sogdian city to whose excavation he had devoted his life's work. He was 73 years old.

Since 1979 Dr. Marshak had been the Head of the Central Asian and Caucasus Section of the Oriental Division of the State Hermitage Museum in St. Petersburg, Russia. This year marked the twenty-eighth anniversary of his assuming the direction of the important excavations at Panjikent, where he began his career in archaeology in 1954. The highlights of his distinguished career and publications may be found elsewhere (in the Russian *Wikipedia* and in the Festschrift *Eran ud Aneran [Transoxiana 2003]*). He was honored by

membership in the Academies of many countries and visiting professorships and fellowships at prestigious universities around the world. Those who have benefited from his wisdom and scholarship describe him as a teacher *par excellence*, 'one of the greatest archaeologists' of modern times, and 'the last of a great generation.'

Few scholars have acquired the breadth of knowledge he possessed of the cultural interactions across Central Asia in the first millennium of the Common Era. He was known for his advocacy of a distinct Sogdian culture within the larger world of Iranian culture; he contributed to the understanding of relations between Central Asia and China. His *Sogdian Silver* (1971), which he gave us permission to post on Silk Road Seattle shortly before he left for his summer's excavation, remains the authoritative study of the subject. His *Legends, Tales and Fables in the Art of Sogdiana* (2002) offers an evocative interpretation of the striking murals uncovered by the Panjikent expeditions, sketches from which frame this page. As he wrote in the conclusion to that publication of the Ehsan Yarshater Lectures he delivered at the University of London, 'I foresee the criticism that my imagination has been too vivid at times.' His death has deprived us of a man who felicitously combined rigorous and cautious scholarship with a vivid imagination, and, in the words of

a colleague, 'still had a lot of things to say.'

I regret having met him only once, when in his quiet way he charmed an audience here in Seattle and stimulated colleagues and friends in conversations during social occasions. When he left, our first thought was when we could hope to have him return and stay longer, since even that visit of a few days so enriched our lives and programs.

We share our deep sense of loss with his family: his wife Valentina Ivanovna Raspopova, a distinguished archaeologist who worked alongside him at Panjikent, his daughter Maria who works in the Hermitage Museum, and his grandson.

Daniel Waugh



The Rock Art of Mongolia

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Within a region — North Asia — remarkably rich in rock art sites, Mongolia represents one of the finest concentrations. As of 1998, approximately 75 rock art sites had been identified across Mongolia. It is safe to estimate that in the intervening years, that number has grown significantly. To date, however, relatively few of these sites have been carefully or thoroughly documented and almost none have received the kind of cultural attention they deserve on the national level or within the community of scholars and management and preservation specialists. The following comments are intended to introduce the subject of Mongolian rock art, and particularly that of northwestern Mongolia, to indicate the source of rock art's cultural value, and to alert serious observers of rock art to the threats that cultural tradition now faces.

A few preliminary words are appropriate to set the stage for this discussion. Rock art is found both within caves — where it is known as 'parietal' art — and in the open air; in the latter case it can be executed on bedrock or on boulders. There are two kinds of rock art known in Mongolia (just as there are around the world). *Pictographs* are made by painting or inking directly on stone surfaces. *Petroglyphs* are executed by percussive blows on or engravings into the hardened case of a stone surface. Although imagery may be found in the form of individual markings on a single stone surface, within Mongolia it is much more typical to find concentrations of such imagery. We may distinguish the extent of those concentrations by referring to a 'point,' i.e. where one finds

only one or a few images, or to a 'site'—characterized by a significant concentration of imagery. In cases where the rock art is extensive and integrated with other surface archaeology, it is appropriate to speak of a 'complex.' Within Mongolia, most rock art occurs within the context of sites, but there are also extensive complexes where rock art has been integrated with other surface archaeology. This is certainly the case within the Mongolian Altai.

Pictographic imagery is found scattered throughout the central and western regions of Mongolia. In most cases, however, it has only poorly survived millennia of weather and human intervention. Existing examples of this tradition from northern and central Mongolia indicate motifs associated with the Transbaikal tradition exemplified by rock art along the Selenga River (Okladnikov and Zaparozhskaia 1969). Motifs include frontal figures that appear to morph into large winged birds, enclosures filled with dots, and horses along 'trails.' Well-known examples of this tradition are found at Tol'zhgiin Boomyn and Bichigt Bulagiin, both in Hövsgöl *aimag*, and at Gachurt and Ikh Tengeriin-am, both in the vicinity of Ulaanbaatar. Although there is no agreement regarding the dating of the Transbaikal rock art tradition, it is probably safe to associate it with the early Iron Age and with peoples who depended for their livelihood on animal husbandry. At Doloon Uul, in Ömnögovii *aimag* and close to the Chinese border, are found paintings of masks and hands (?) that are reminiscent of a tradition known more widely in the Yinshan Mountains of China (Chen 1988).

The single example of surviving painted rock art in northwestern Mongolia is that of the Khoid Tsenkir Cave, in Khovd *aimag*. Located in the flat, arid steppe to the east of the Altai range and southwest of the large lake, Khar Uss, this cave has been known to local herders for thousands of years and to scholars for several decades. The cave was first published in 1972 by the Russian archaeologist, A. P. Okladnikov, who reproduced the painted images within the cave in drawings and colored facsimiles (Okladnikov 1972). Most scholars agree that some of the paintings there may go back to the late Paleolithic period; such a date is suggested by the possible representations of ostriches, a mammoth, and a (wild) camel. Unfortunately, both during and since the original documentation of the cave, the original imagery has been either effectively obliterated or else so repainted that it is impossible to judge the quality or the chronology of the original paintings. At this time it is not possible to tell what is original and what is not; and the over-painting and other intrusive and repeated attempts to 'clarify' the imagery assures that the oldest images cannot provide any reliable means for their dating — either by radiocarbon dating or by references to technique and style.

Given the information regarding rock paintings in the northern Chinese Altai recently offered by Wang Binghua in this journal, it is quite possible that there were once many more pictographic sites in western Mongolia, as well as elsewhere across the country. If they did once exist, it is probable that all have been destroyed by exposure to time and weather. By contrast, the petroglyphs — i.e., imagery pecked or engraved into a rock surface — are much more persistent; this tradition is consequently far better known. Scattered sites in the Gobi region reflect pictorial traditions of the Bronze and Iron Ages, with naturalistic scenes of hunting,

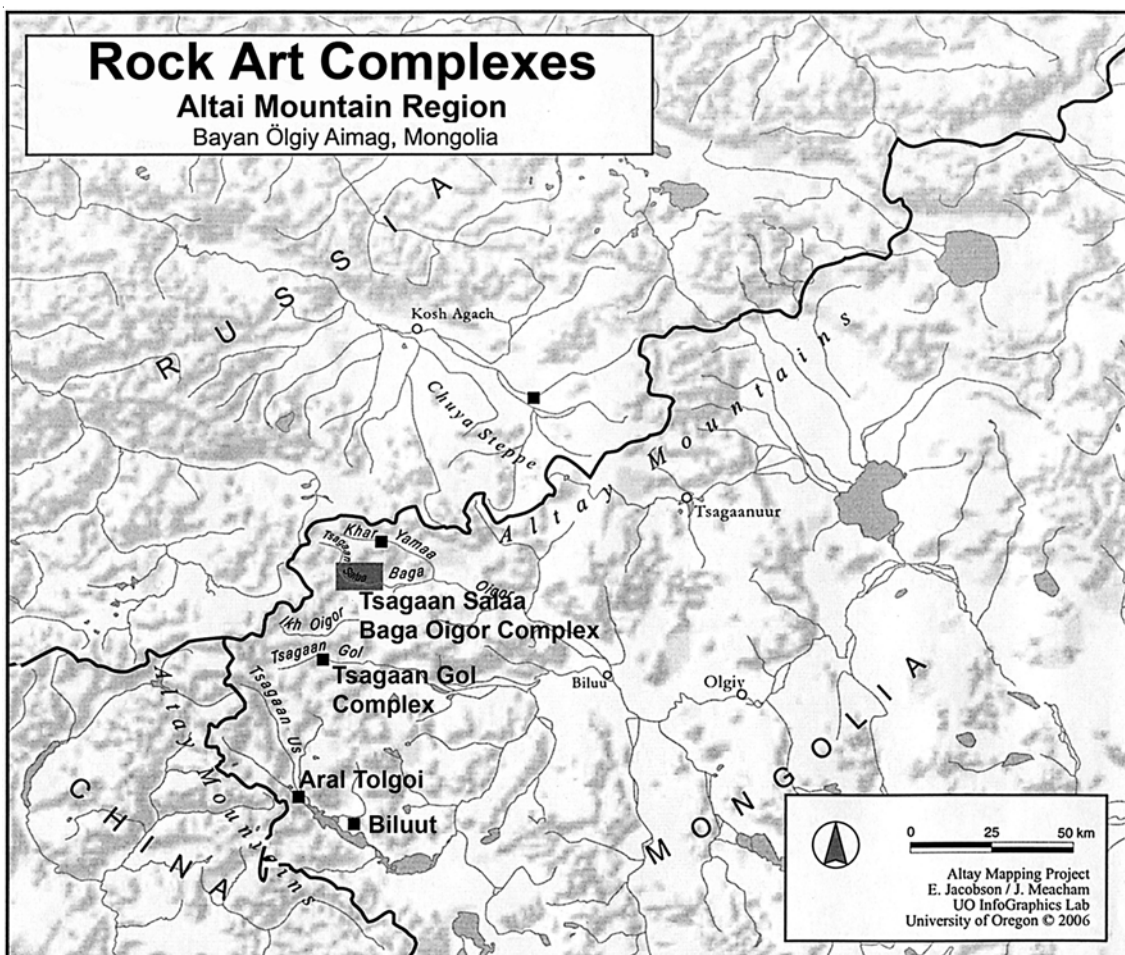
herding, individual animals and human figures. Unquestionably, the sites that have been published to date (e.g., Tseveendorzh, Batchuluun, Batbold 2004; Tseveendorzh, Batbold 2005), represent only a small number of those that remain to be identified, surveyed, and documented. Larger concentrations of petroglyphs have been found further to the north, along the Chuluut River valley; many of these have been published, albeit incompletely and generally inadequately (Okladnikov 1981; Novgorodova 1984, 1989). The Chuluut petroglyphs are of particular interest since they include images of an archaic 'bird-woman' type that is otherwise well known only through the petroglyphs of Kalbak-Tash, in the Russian Altai Republic (Kubarev, Jacobson 1996).

Unquestionably we have only begun to develop an understanding

of the petroglyphic tradition of Mongolia: though much is already known, it is certain that many sites have yet to be identified and studied. This is particularly true in the case of the Altai mountain region of western Mongolia. Within that region, the largest and richest concentrations of rock art are found in mountainous Bayan Ölgii aimag (see map). These sites and complexes are located within the valleys that descend from the high ridge separating Mongolia from Russia and northern China, along the shores of the great lakes Khurgan and Khoton Nuur, as well as within valleys further to the east: around Ölgii, the sacred mountain Tsengel' Khaikhan, and scattered along the valleys of the Sagsay and Khargantín Gol drainages.

Ancient artists sometimes used the granitic boulders that are heaped up on moraines descending

from the high mountain ridge. That material, however, is generally of poor quality, its internal core tending to soften and its external, coarse-grained layers tending to exfoliate over time. For that reason one frequently finds that the outer layers of worked granitic boulders — such as those scattered across the valleys of the Ikh and Baga Khatugiin Gol — have simply fallen away, leaving only 'ghosts' of the original imagery. The vast majority of surviving rock in the mountainous region has been pecked into the sandstone (metagreywacke) characteristic of bedrock in the high Altai. Expressed primarily in the form of outcroppings and secondarily in the form of boulders, this sandstone has been hardened by the long process of mountain building characteristic of the Altai Range and subsequently polished and scraped by the glaciers that filled the high valleys until approximately 16,000 years ago.



The resulting surfaces are frequently smooth and textured by the movement of glaciers. Their color is highly varied, ranging from green-blue, to a rich tawny hue, to a coloration that is almost black, and to deep reds or rose tonalities. This varied discoloration of the surface — what is usually referred to as patina — results from the dynamic interaction of the rock substrate's mineral character and the nature of air or water borne substances. The particular beauty of the Altai sandstone's coloration in combination with the textured traces of glacial movement has created surfaces that are, in effect, elegant 'canvases.' The beauty of this material may help to explain the extraordinary abundance of rock art imagery throughout the high Mongolian Altai.

Petroglyphs were typically executed by either a direct or indirect method. 'Direct' pecking refers to the use of a single, hand-held instrument to strike directly on the rock surface. 'Indirect' pecking refers to a two-handed method, whereby a 'hammer stone' is used to strike a second pecking instrument made from stone or metal. The apparent use of the direct method of pecking is frequently seen in both the oldest petroglyphs in northwest Mongolia and in those of a relatively recent period. The tell-tale signs of such a pecking technique include large, irregular pits in the stone surface and rough contour lines. Indirect pecking generally offers greater control and was certainly the method of choice in the case of all finely textured and contoured images. Since within the Altai region the landscape is almost literally paved with stones, the identification of the instruments used for pecking the imagery would be difficult if not impossible. With the wearing out of one hammer or pecking stone it would have been very simple to find others. Judging from the texture of contours and silhouettes, however, it is possible to determine if the percussive instrument was

fine or coarse pointed, just as it is possible to determine artistic quality in the working of the stone surface.

In approaching the rock art of Mongolia (or, for that matter, of any other region of the world), one should bear in mind that the images were originally white and would have been far more visible, even from a distance, than is the case today. That white coloration results from the crushing of the surface rock crystals as a result of direct or indirect blows. A considerable period of time has to elapse before the white coloration of the pecked images begins to darken down. Judging by style and subject, we can estimate that within the Altai region of Bayan Ölgii it takes approximately 3000 years for imagery to begin to lose its white coloration. Extremely old images may become as dark as the surrounding hardened 'skin' of the stone. In this respect the patina (discoloration) of the images may indicate age; but that is only one clue, among many, regarding the chronology of the rock art and has to be used with considerable caution. The mineral character of the substrate, the pitch of the



Fig. 1. Present-day winter dwelling on south-facing slope in the Baga Oigor valley near a major group of petroglyphs.

surface, and the nature of the immediate environment all qualify the rapidity with which a pecked image could become repatinated.

Within the mountainous region of northwestern Mongolia, petroglyphs are often found in small concentrations that coincide with the present-day winter dwellings of local herders. This coincidence indicates that protected places, nestled into the slopes and draws of mountains, have been used for temporary habitations for thousands of years. A particularly striking example of this is found in the Khar Yamaa valley (Tseveendorj, Jacobson, Kubarev 1997) where present-day winter dwellings coincide with concentrations of imagery dating back to the Bronze and early Iron Ages (for an analogous example, see Fig. 1). The rock art in this



Fig. 2. Circular altars in Baga Oigor valley, below a hillside with a concentration of petroglyphs.

valley typically includes realistic or stylized animals, hunting and herding scenes, as well as a few scenes of combat between archers. Along the valley floor are many surface structures typical of what one finds throughout this mountainous region. These include large mounds with elaborated 'walls' and adjoining circular altars (Fig. 2, preceding page); simple mounds that may indicate burials; large standing stones, often set in stone 'frames'; and Turkic enclosures, often associated with the carved stone images of Turkic warriors. Khar Yamaa can thus be considered a rock art complex that includes several sites of concentrated petroglyphs.

One of the largest concentrations of rock art in northwestern Mongolia is the complex of Tsagaan Salaa/Baga Oigor (Jacobson, Kubarev, Tseevendorj 2001), located along the left and right banks of the Tsagaan Salaa (White Fork) before its confluence with the Baga Oigor (the Small Uighur) and further along the left bank of the Baga Oigor for a total length of approximately 30 km (Fig. 3). Some of the images are pecked into granitic or sandstone boulders scattered at the base of the slopes and bordering the rivers. The majority, however, are pecked or

engraved on the outcroppings that occur across the face of the slopes. The imagery is generally denser close to the valley floor, but it continues up the slopes on the north side of the rivers for a distance of several hundred meters. (Small concentrations of rock art on the right bank of the Baga Oigor were not included in the definition of the complex nor in its 2001 publication.)

The rock art complex of Tsagaan Salaa/Baga Oigor is not only of unusual size; it is also of a remarkable age. A few images of mammoths indicate that the complex dates back to at least the late Pleistocene, before mammoths disappeared from this region of North Asia. Many images of aurochs (wild cattle, *Bos primigenius*), horses, and argali (wild sheep) also appear to date from a very early period. They are rendered with a static, profile monumentality and with the simplification of legs and the rounded treatment of abdomens familiar to many Westerners from the open-air site of Foz Coa, Portugal, or from Paleolithic cave art in France and Spain. By the early Holocene, mammoths had, of course, disappeared and were not again represented in the complex. On the other hand, many images of elk (*Cervus elaphus sibiricus*)

and moose (*Alces alces*), executed in a style of monumental realism, indicate the early Holocene development of forests sufficient to support this species. A few images of bear, also, and many of aurochs, horses, and caprids reflect a conception of zoomorphic representation pointing to a pre-Bronze Age date. The earliest images of hunters, usually frontal and with great clubs or spears, may mark the advent of the Bronze Age. The only image type from western Mongolian sites that appears to reflect a spirit world is found in the Tsagaan Salaa/Baga Oigor complex. This image has a bell-shaped body and horns. Sometimes it has feet, sometimes it appears to be giving birth to an animal or infant child, but it never has recognizable features (Jacobson 2002).

The complex of Tsagaan Salaa/Baga Oigor is especially rich in rock art imagery from the middle and late Bronze Age. Often suggestive of complex narratives, scenes from that period may be of animals alone or they may be filled with representations of hunting after wild cattle, caprids, or elk, archers in combat, or herds of animals accompanied by herders (Fig. 4, next page). Wild and domesticated yak make their appearance as do scenes of family caravans. These characteristically include domesticated yak with household goods loaded on their backs and led by women (on right in Fig. 3). Caravan scenes are frequently accompanied by hunters, as if to suggest the hunting grounds through which families made their way to new pastures. In many cases the large yak carry baskets in which the children or the family are riding. On rare occasions we see these caravans attacked, as in a raid.

Images of family caravans, like those of men driving wheeled vehicles, reflect the increasing transhumance of local populations in the late Bronze Age. This major shift in life styles probably



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Fig 3. Petroglyphs in the Baga Oigor Valley.



Fig. 4. Mythic scene (?), with elk, moose, figures and small animals. Bronze Age. Tsagaan Sala II.

emerged gradually during the second millennium BCE, as forests retreated in response to the gradual reversion to a drier, harsher climate. Paleo-environmentalists believe that by approximately 3000 years before the present, the climate and environment of this part of Mongolia had become as we know it today. In effect, by the late Bronze Age the environment appears to have forced a gradual transition from sedentary hunting and pastoralism to a herding-dependent economy. In addition, the appearance of horse riding in the late Bronze Age — vividly recorded in the rock art of Tsagaan Salaa/Baga Oigor and other sites — supported the transition first to transhumance and then to a semi-nomadic life style. In imagery dating to the Late Bronze and Early Iron Ages, we see, also, the appearance of an increasing stylization in the treatment of animals. Deer (elk) images, especially, reflect that trend: their bodies are often rendered as extremely elongated, their legs thin, even vestigial, the heads drawn out into the form of a long bird beak, and their antlers exaggerated into great waves stretching back over their spines (Fig. 5). These highly stylized formulations are exactly those known more frequently from the

great 'deer stones' of central and north Mongolia. Their appearance here, in northwestern Mongolia, appears to reflect the intrusion of a new population at the end of the Bronze Age, bringing with it the tribal emblem of a deer. From where these people came, however, and who they were remains unclear (Jacobson 2001).

The great period of Tsagaan Salaa/Baga Oigor rock art seems



Fig. 5. Stylized deer, birthing women, hunt scenes and dwelling. Late Bronze Age. Baga Oigor II.

to end with the early Iron Age. While there are many images later than that, including some images and even inscriptions from the Turkic period, they are not as impressive as the earlier material. Nonetheless, the history of representation covered by this extraordinary complex extends over as much as 12,000 years. For that reason alone, but also for the outstanding quality of much of its art, this complex serves as a remarkable cultural heritage; it has appropriately been proposed for inclusion in the list of World Heritage Sites.

The rock art complex of the Upper Tsagaan Gol is even larger than that of Tsagaan Salaa/Baga Oigor and no less marked by imagery of outstanding quality. Moreover, its combination of a distinctive physical landscape, extensive rock art, and numerous ritual sites make it one of the most complex concentrations of prehistoric and early historic art within North Asia (Jacobson, Tseveendorj, Kubarev 2002). Located in a high, narrow valley just under the glaciers of Tavan Bogd, the knot of mountains at the

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Fig. 6. View toward Tavan Bogd, Upper Tsagaan Gol.

junction of China, Mongolia, and Russia (Fig. 6), the complex is wrapped around a boat-shaped,

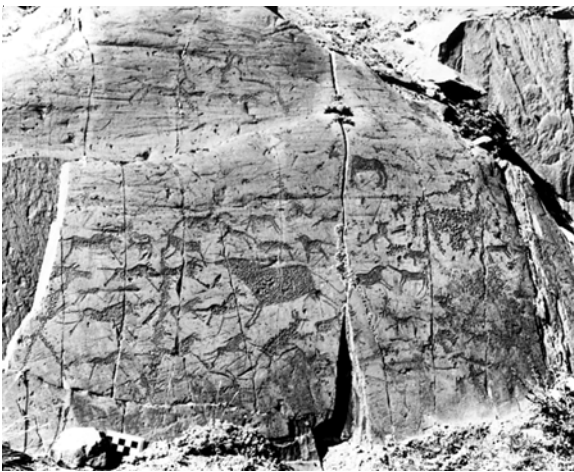


Fig. 7. Horse herd. Bronze Age. Upper Tsagaan Gol.

sacred mountain named Shiviit Khairkhan. To judge from the manner in which its flanks are adorned with both rock art and surface structures, Shiviit Khairkhan was the focus of



Fig. 8. Young men and bulls. Late Bronze Age. Upper Tsagaan Gol.

reverence in the distant past, just as it is in the present.

In general, the rock art of the Upper Tsagaan Gol reflects the same cultures and economic transitions one sees at Khar Yamaa and Tsagaan Salaa/Baga Oigor. There are, however, a few significant differences:

perhaps because of its proximity to the high mountains,

there is no rock art here that can confidently be dated to the late Pleistocene; that is, no images of the megafauna that disappeared at the end of the Pleistocene. On the other hand, we have identified a number of stone artifacts of Paleolithic form as well as many images of elk, argali, wild goats, horses and aurochs that by style and technique

of execution indicate a pre-Bronze Age date. Tsagaan Gol is particularly rich in art of the Bronze Age; the complex includes some spectacular panels of hunts and herding, as well as of carts and riding (Figs. 7, 8, 9).

The many representations of highly stylized deer dating to the late Bronze Age and the fact that these images are frequently pecked directly over earlier, Bronze Age imagery, raise significant questions regarding social change in that period (Jacobson 2000) (Fig. 10, next page). In addition, there are many panels from the Turkic period that count



Fig. 9. Cart. Bronze Age. Upper Tsagaan Gol.

among the finest preserved from that period (latter first millennium CE) within North Asia. These scenes include large riders, riders hunting wild goats, and even riders carrying their eagles or falcons for hunting.

About 45 km directly to the south and within a closed border zone is found the site of Aral Tolgoi, located at the western end of the great lake, Khoton Nuur (Tseveendorj, Kubarev, Yakobson [Jacobson] 2005). This is a region of northwestern Mongolia that uniquely retains, even today, an extensive relic forest from the early-middle Holocene. Compared to those we have already mentioned, this site is quite small, taking the form of a single, whale-shaped hill where imagery is located almost entirely on the eastern half of the ridge. Despite its relatively small size, however, this site is of exceeding importance: it represents the finest and largest open-air collection of Paleolithic rock art within North Asia, unsurpassed by any other documented site. The early date of this material is indicated by a fine image of a rhinoceros, an animal that, like the mammoth, disappeared from this region approximately 11,000 years before the present. Images of ostriches, also, are of particular interest since they must date back to a period previous to the emergence of forests in the early Holocene. Other images of considerable age include aurochs, elk, horses, argali, and wild goats

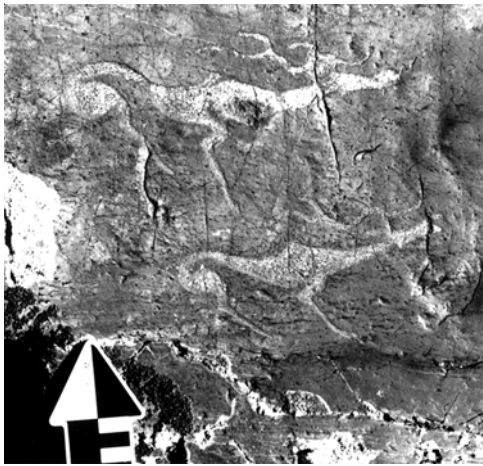


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Fig. 10. Stylized deer. Late Bronze or Early Iron Age. Upper Tsagaan Gol.

(Fig. 11). Many of these images are rendered with considerable simplicity, grace and monumentality, but many are also extremely difficult to see. Perhaps because of glacial action in the Pleistocene, and due to the much more humid conditions in this far western valley over the last few thousand years, the bedrock on which the images are pecked is crumbling and frequently covered with lichen. (Even more destructive are the thousands of sheep and goats that cross this hill every day, their small, sharp hoofs impacting surfaces already weakened by age and weather.) In assessing the significance of Aral Tolgoi, it must be related to the small concentration of Paleolithic imagery at the site of Kalgut, on the Ukok Plateau (Molodin, Cheremisin 1999) and to the Paleolithic imagery of Tsagaan Salaa/Baga Oigor.

Within the Khoton Nur basin is also found the site called Bilüüt, a series of three hills on the north shore of the lake (Kortum et al. 2005). The pecked imagery at this site reflects an extension of the cultural traditions so vividly represented at the two large complexes to the north. Perhaps the most impressive images from

Bilüüt include several unusually large, early Iron Age horsemen. Many representations of groups of large yak are also found here; these reflect the herding economy of the late Bronze Age. An area of scattered petroglyphs is also found south of the lake and within the border zone closed to the public. A number of the compositions there are of outstanding quality, some suggesting a date within the late Pleistocene. A large number of petroglyphs are found scattered on the

boulders of a great moraine (Khara-Boreg) at the east end of Khurgan Nuur. In summer of 2005 we identified and began the documentation of another major



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Fig. 11. Archaic elk with overlaid images. Pre-Bronze Age. Aral Tolgoi.

complex of rock art east of Tsengel' Khairkhan Uul. Although much of the material at this isolated site reflects a cattle-herding culture from the late Bronze Age, there are also many images of horned, anthropomorphic figures — male and female — in postures suggesting dance or birthing. The darkened patina of these images, their apparent execution with a large blunt instruments, and the exceedingly damaged aspect of the surfaces on which they are found indicate a pre-Bronze Age date. In addition, there are many concentrations of rock

art along the north-south valleys of mountainous Bayan Ölgii. Many of these have been noted by local rock art enthusiasts; too many have been badly damaged by local herders and thoughtless tourists (Fig. 12). The fate of these sites, as of the large complexes described above, is a subject for serious concern.

When the great rock art sites of northwestern Mongolia are considered on a larger regional scale, they are seen to have clear associations with the Bronze Age, Iron Age, and Turkic cultures responsible for major complexes in the Russian Altai. One finds, also, associations with rock art of the Minusinsk Basin, but these are weaker and include only a few pre-Bronze Age references. The art of the early Iron Age of the so-called 'Scythian Period,' affirms relationships between this large region, the Sayan Mountains, the Russian Altai, and even with the Tianshan of Kazakhstan and Kyrgyzstan.

While our understanding of this material is only at a beginning phase, it is already clear that the rock art of the Mongolian Altai, as well as that across Mongolia, serves as a priceless document for the study of the prehistory in the heart of Eurasia. Rock art constitutes the clearest source material for a consideration of cultures and



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Fig. 12. Petroglyphs defaced by red paint near a herder camp, Khatuugiin Gol (not far from Bayan Ölgii).

traditions that cross national boundaries and paleoenvironmental regions. In terms of its scientific value, rock art should be considered to have a documentary value no less significant than materials retrieved from archaeological excavations of burials and settlement sites. But it is also true that rock art is neither pure art nor archaeology: it mediates between the two disciplines, revealing styles, subjects, and values held in common by large communities and cultures while at the same time disrupting general cultural rules with the insights and expressive clarity of individuals. Rock art is, in other words, both art and archaeology, both image and 'text.'

Around the world and within Mongolia, rock art has been attracting increasing attention over the last few years and on the part of both scientists and amateurs. For this reason it is important to review the proper ways to handle this material so that it is preserved for the benefit of future generations. While rock art has traditionally been studied using a variety of approaches, we are now keenly aware that many of these approaches have ultimately proven to be extremely destructive. It is all too possible, in other words, to love rock art 'to death.' First one must realize that even though rock appears to be solid and in some respects 'eternal,' it is not: any rock surface, pecked or otherwise, is in a constantly dynamic process of decay catalyzed by time and the elements. Pecked surfaces, however, have a particular fragility. The very act of pecking or engraving images has resulted in a breaking of the hardened 'rind' or case, opening the surfaces to the in-seeping of water and the intrusion of vegetation. Temperature change, freezing and thawing, further weakens the pecked surfaces, as does the millennial growth of lichens. Observers of rock art will frequently note, perhaps, that the crushed surfaces of whole images

have simply dropped out of the stone surface, leaving 'echoes' or 'ghosts' of the original. This is, in fact, a natural process and can probably not be stopped: indeed, we know of absolutely no way in which it can be delayed. But the process is radically hastened by human activities. Walking over the pecked images weakens the pecked surface and should be avoided. Cleaning the surface, except by the light brushing away of superficial dirt and pebbles, is also no longer considered to be acceptable. Lichen growth should never be removed or disturbed. While we may not yet be able to exploit lichenometry as a rock art dating technique, it will likely be possible to do so in the future. Lichens are, also, like ivy: once the growth has taken root on stone it serves as a kind of protective covering, while pulling it away or scrubbing it off tears up the organism's tendrils and the rock crystals in which they are embedded. The destruction of rock art sites in the neighboring region of the Russian Altai is a case in point: at several of the most important sites, in researchers' enthusiasm to record the images they had found, they scrubbed the surfaces of the stone free of all lichen. As a result, too many of those surfaces are now falling away, obliterating the very images the researchers wished to record.

The third process that must be avoided is recording the images by any kind of rubbing technique. This has traditionally been the preferred way of recording rock art, and we still see serious scientists as well as amateurs using this approach. Again, however, we also see the destructive results in many sites of the Russian Altai as well as elsewhere in the world. The physical pressure required in making rubbings only further weakens the 'cleaned' surfaces. The ink or similar substance used to make the rubbing invariably seeps through the paper and contaminates the chemistry of the stone surface. Briefly put: neither

researchers nor rock art lovers should ever record rock art by any intrusive methods. The best recording method is photography, although one may also employ a tracing technique, using a heavy, clear plastic sheet over the imagery. Used in conjunction with soft felt pens, this method of copying is probably quite harmless.

The rock art of Mongolia, and especially that of the Mongolian Altai, is a precious resource for the study of prehistoric societies and their culture. Given its outstanding quality and quantity, it is curious that this material has not been extensively studied until relatively recently. As indicated earlier, this situation has been changing; but emerging attention brings negative as well as positive results. On the one hand, one might assume that the more attention rock art receives, the better its chances of preservation. Unfortunately, while many local herders and officials decry the increasing destruction and theft visible in rock art sites throughout Mongolia, there has until recently been little political will and no financial backing to address this situation anywhere, and certainly not in the richest region of rock art — the Mongolian Altai. The increasing attention of tourists brings with it, also, intended or unintended impacts: damage inflicted by individuals with selfish interests or by those (far more numerous) who admire the images pecked onto rocks but do not realize the negative impact of human feet, human hands, or inappropriate (intrusive) means of reproduction. Indeed, it behooves all who honor this extraordinary tradition to encourage its preservation: both through our own actions and through our communications with others.

About the Author

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working on the petroglyphs and surface archaeology of Bayan Ölgii aimag, Mongolia, for the last twelve years.

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'Man-stone.' Upper Tsagaan Gol. Turkic Period.

The Origins of the Great Wall

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If there is a single Chinese monument that people anywhere in the world are likely to have seen, heard of, or read about, this is the Great Wall (Fig. 1). Aside from its mythical proportions, the Great Wall has symbolic powers that transcend its historical and material existence. It has been depicted as a parting line between the known and the unknown and the physical line marking the frontiers of civilization, the inhospitable liminal universe which was the preserve of a demimonde of barbarians and trans-frontiersmen, convicts and soldiers, crafty merchants and banished officials. In historical writings, the Great Wall has been presented as protection against invaders — the engineering product of a superior civilization erected against the tumultuous waves of its enemies — but also as the symbol of unrestrained, vain, and arrogant tyranny, tangible product of the blood and tears of the toiling masses. Most recently the Great Wall has acquired yet another meaning, following new orientations in the politics of historical interpretation: a meeting point of cultural exchange, compared to a river that unites rather than divides, and brings different nationalities closer together. A malleable symbol adapted to political and cultural metaphors, gate to be crossed or drawbridge to be lifted, the Great Wall of China continues to be a testimony of China's cultural, historical, and now national identity: a most patriotic artifact.

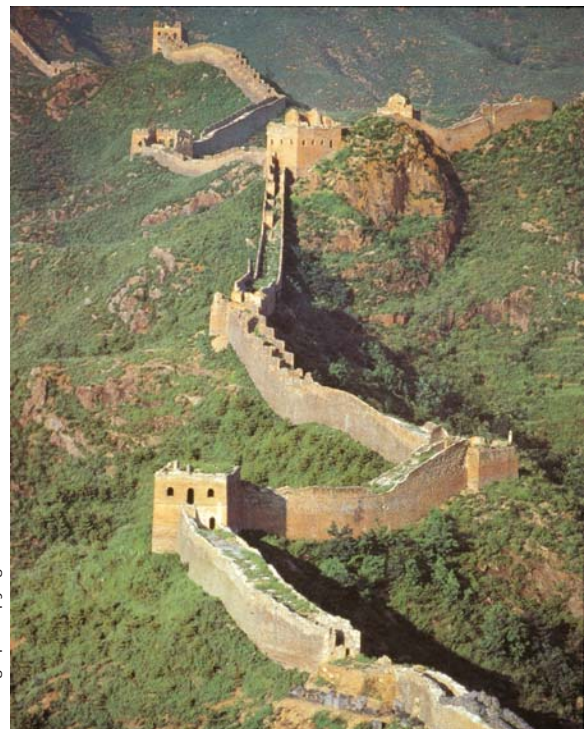
Owen Lattimore probably was the first Western scholar to see the Great Wall more as an economic and environmental than a cultural

boundary between nomads and settled people (Lattimore 1937, 1940). Arthur Waldron in his excellent study restored its historical dimension, exploding some of its myths (that it could be seen from the moon, for instance) and focusing on its construction during the Ming dynasty, in the fifteenth century, when the Great Wall became the majestic monument we can see today (Waldron 1990). Yet although the Ming Great Wall is a relatively recent creation, the concept of a Great Wall, or more correctly 'long walls' (*chang cheng*) has been in existence for a much longer time, going back to the late fourth century BCE. As astonishing as the spatial dimension of the Great Wall is, covering several thousand miles, it is its temporal aspect that has been key to its success as a symbol of patriotism and national pride, a line in the sand between barbarians and Chinese drawn even before China's imperial unification.

Yet once we begin to consider the Great Wall as a historical artifact rather than as symbol, we are bound to recognize an altogether different picture. As a defense structure, its record is abysmally bad. It never prevented invasions, and it was expensive to build and maintain. The

monumental futility of the Great Wall as a military installation has been demonstrated in especially stark terms during the Ming period, when massive investments did not prevent China from being attacked by the Mongols and eventually conquered by another northern people, the Manchus. China's strategic culture seems to have favored static defense, and this may be one reason for the long existence of various types of border fortifications, and the Ming construction of the Great Wall as we know it. But was this always the case? Did the Great Wall always serve as a defensive structure? These are some of the questions I had to ask as I became interested in the early phase of the history of the frontier between China and the steppe.

The theory that the northern walls were erected to defend Chinese states from the nomads is well known and continues to carry much weight today. As we shall see in greater detail below, Sima Qian's narrative account of



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Fig. 1. The Ming Great Wall in northeastern China.

the historical relations between China and the northern nomadic peoples in chapter 110 of his *Records of the Grand Historian* (*Shiji*, first century BCE) was based on the historical myth (an 'invented tradition,' some might say), according to which China and the north had been perennially at odds with one another, and that China had since the dawn of history suffered from nomadic invasions. This rationalization of what was in effect a late phenomenon, that is, the appearance of the strong unified nomadic empire of the Xiongnu, set the tone for the later Chinese understanding of relations with the north. According to this deeply rooted *topos* of Chinese historical thinking, which has been repeatedly asserted as recently as at the Symposium on the Great Wall held in 1994, China was weak and unable to oppose an adequate defense against the northern nomads, except for the Great Wall, which then became a symbol of resistance against all invaders (Waldron 1995). Concern for the historical 'weakness' of China vis-à-vis the nomads could not exist, of course, outside of a notion that regarded the nomads themselves as a positively aggressive, militarily superior enemy (as represented, for instance, in the Disney animated movie *Mulan*). As Sima Qian said, it was their innate nature to love war (Sima Qian 1993, p. 129).

The history of the northern frontier before the unification of China is obscure and often cast, in the earliest Chinese texts, in moralizing terms. The Chinese had already attained a high level of cultural sophistication, with music, rituals, moral norms, and especially writing. Those people who did not write, had different customs, and did not belong to the Chinese cultural and political sphere, were therefore regarded as uncivilized. Several passages can be extracted from the earliest historical documents which present the story of the relationship between Chinese and non-Chinese

in terms of 'civilized' vs. 'barbarians.' Among the non-Chinese were, of course, northern peoples thought to be the ancestors of the warlike nomadic horsemen who were to become a major threat from the Han dynasty onwards. From the mid-eighth to the mid-sixth century BCE, Chinese states conducted a series of military campaigns in the north against peoples called Rong and Di. Sometimes these peoples retaliated but usually they were defeated, subjugated, incorporated, and eventually assimilated. This process was made easier by the understanding that certain rules of conduct in war (a code of honor, a sense of fair play) that were to be observed, at least theoretically, when the fighting occurred among Chinese polities, were no longer prescriptive in the case of foreign wars, where no trick or stratagem, no broken oath, no breach of loyalty carried a moral sanction or other undesired political consequences. Foreign peoples were conceived as resources, and their use as such was not only practiced by Chinese states, but also theorized.

From the sparse textual evidence at our disposal we can see that the land and labor extracted from non-Chinese groups constituted a type of wealth often coveted by the Chinese states. Victories obtained against foreign peoples could serve the strategic purpose of intimidating potential enemies. Another doctrine — wrongly assumed to be pacifist — maintained that wars against foreigners had to be undertaken sparingly, because there was a risk that such ventures may weaken the state and expose it to attacks from other Chinese states. It was *realpolitik*, not moral values, that regulated the foreign relations between Chinese states and their neighbors. Generally speaking, the political discourse about foreigners in pre-imperial China tends to justify expansion and conquest, which is exactly what happened. Looking closely at

those statements that point to cultural differences, then, we find that such differences provide a political rationale that allowed for the expansion of Chinese polities.

Especially in the Warring States period (5th-3rd century BCE) the Chinese political and economic spaces continued to expand even though the number of independent states vying for power dwindled. The general trend was towards the creation of larger and stronger states, which expanded not only by swallowing up other Chinese states but also by expanding into external areas. If we look at the northern frontier, this trend is clearly identifiable as the states of Zhao, Yan, and Qin kept expanding and growing both militarily and economically. Setbacks occurred, but the general impulse was towards becoming stronger, and alien peoples, not integrated in Chinese civilization, were a reservoir relatively easy to tap into. From pastoral people the Chinese imported cattle and sheep, wool, leather, horses, and pelts. Moreover, at this time the frontier economy became monetarized through the use of metals, such as gold objects possibly used as currency, and especially bronze coins. Military requirements may have played a key role, since pack animals must have been needed in increasing numbers for transportation during military campaigns as armies became larger and larger. Horses become especially important from the late fourth century BCE with the adoption of mounted warfare by Chinese states. In sum, archaeological but also textual evidence suggest a historical context, on the eve of the building of the very first 'great wall,' in which the northern frontier zone appears to have been increasingly valuable, in economic and strategic terms, to northern Chinese states.

As we know, the First Emperor of Qin, the one who in 221 BCE emerged victorious from the struggle among the 'Warring

States' and unified China, was not the one who first erected walls. He merely expanded and unified a network of fortifications which existed previously and had been established by the states of Qin in the northwest, Zhao in the north, and Yen in the northeast (see map, Fig. 2, for the various 'walls'). Given that the conventional theory holds that the early walls were built to protect China from the nomads, historians have tried to explain why the nomads would raid, attack, or invade those lands we conventionally call 'Chinese.' Generally speaking, scholars have produced a number of theories more or less persuasive, and more or less supported by the sources. Some have sought to explain the nomads' aggressiveness, for instance, with a model of nomadic-sedentary relations according to which nomads need to acquire resources from their agriculturist neighbors, and would resort to war or trade to obtain them. Owen Lattimore himself saw relations across the frontier strongly determined by competing societies that differed dramatically in terms of environmental adaptation and economy. Chinese scholars have seen also in the 'imbalance' in the development of the productive forces on both sides of the 'great

wall' the source of conflicts originated by the less developed side, the nomads. At any rate, all theories converge to agree that the 'great wall' was built as a response to nomadic aggression. To test the truth of this general apparently unshakeable belief we then should ask a most significant question: what does the evidence actually say?

Surprisingly, there is no textual evidence that allows us to establish a direct cause-effect relationship between nomadic attacks and the building of the walls. The evidence shows, on the contrary, that the building of walls does not *follow* nomads' raids, but rather precedes them. If a linkage can be established in terms of mere chronological sequence, the construction of the walls should be regarded as the cause, not as the effect, of nomadic incursions. Secondly, archaeological evidence does not support the contention that the walls were protecting a sedentary population, even less that they were protecting a 'Chinese' sedentary population. In fact, the early walls did not mark an ecological boundary between steppe and sown, nor did they mark a boundary between a culturally Sinitic zone and an alien

'barbarian' region. For the most part, they were entirely within areas culturally and politically alien to China. These simple observations should already suffice to raise doubts as to the actual function of the earliest walls. More doubts are engendered as we delve deeper into the textual and archeological evidence.

The idea and technology of such 'long wall' military installations is first found in central and southern China and associated with states such as Wei and Chu in the fifth century BCE. The 'walls' built along the northern frontier constituted an integrated system of man-made structures and natural barriers. The careful choice and use of topography enhanced greatly the effectiveness of these fortifications. This system, in addition to the 'walls,' included small as well as relatively large forts, beacon towers, look-out platforms, and watchtowers. Typically, the walls were made out of stamped earth and stones piled up in layers to form a rampart, usually on sloping terrain, so that the outer part would be higher than the inner part (Fig. 3, next page). Moreover, along the walls archaeologists have discovered, at regular or irregular intervals, mounds of stamped



Fig. 2. The Great Walls.



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Fig. 3. The Han wall at Yumenguan, showing stamped earth construction.

earth that are probably the remains of elevated platforms or towers. On higher ground, such as hilltops or even mountain peaks, small stone structures have been found, in the shape of platforms, which are assumed to have served as look-out posts or beacon towers. On the inner side of the wall, at varying distances, we find a number of additional constructions, in the shape of square or rectangular enclosures, whose walls are often made of stone, believed to be forts garrisoned by soldiers.

In mountainous terrain along precipices and ravines or narrow gullies, the man-made structures may be limited to a few towers and gates blocking a mountain pass. Roads on the inner side of these walls served the purpose of connecting the various garrisons with strategically important locations. Beacon towers, also placed on the inner side of the walls, were probably used to communicate between the various stations, although the system of communication is unclear (Fig. 4). Undoubtedly a complex system of couriers, postal stations, and checkpoints must have been operating, and the sheer number of structures and their spatial extension suggest that the efficient use of these early 'walls' required an extensive military presence.

For instance, on top of the wall

built by Qin, for its entire length, we find three to four mounds (raised platforms) per kilometer, amounting to a total of approximately 6,300 separate structures. Throughout the line of the walls, on the inner side, we encounter ruins of military installations. Citadels and forts are distributed at a distance of three to five kilometers from each other, and their internal area may vary from 3,500 m² to 10,000 m². They are generally walled, though forts built on steep ravines and gullies do not have walls, as the natural topography provided sufficient protection.

Turning to the evidence provided by textual sources, some caveats need to be borne in mind. The first concerns authorship, or rather the historical and cultural context from which the sources themselves originated. Explicit

mention of wall building activity by the northern states is found in the *Records of the Grand Historian (Shiji)*, authored by Sima Qian around the turn of the second century BCE, that is, over two hundred years after the first northern walls were built, and after about a century of wars between the nomadic empire of the Xiongnu and China. Sima Qian inscribed such a long and bloody confrontation in a historical pattern according to which China (variously indicated as Hua, Hsia, Zhongyuan, Zhongguo, or even 'the land of caps and sashes') and the nomads constituted two antithetic poles that had been at odds ever since the dawn of Chinese history. Within this pattern Sima Qian produced an ethnic genealogy, culminating with the Xiongnu, that held all the various 'northern barbarians' together as one coherent narrative unity. As a result he created a polarization between a unified north and a unified south and projected it into the past. Sima Qian also recorded names and events whose number and variety is in itself evidence of the political and ethnic complexity of the north. Hence, while it is essential to remember that the historical narrative of the northern frontier is, not, itself, neutral, one cannot use this argument simply to dismiss all that it reveals about China's relations with the north during the Warring States period (for details, see Di Cosmo 2002, part IV).



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Fig. 4. Han beacon tower at Yangguan, west of Dunhuang.

Moving then closer to the question of the Great Wall, we need to ask whether the *Shiji*, as our most important historical text, supports an interpretation according to which the walls were established as a military defense. Or, to put it differently: does the historical evidence show a connection between nomadic threats and wall-building? As for the state of Qin, the record says that its king Zhaoxiang (306-251 BCE) began to build walls on the north-western border after a military campaign into that territory, which was inhabited by a non-Chinese people called the Yiqu Rong. The pretext of Qin's expansion is attributed to a 'scandalous' series of events. Apparently the king of these Yiqu Rong had illicit intercourse with the Queen Dowager of Qin, who bore him two sons. Having grown displeased with the king, the Queen Dowager later deceived and killed him, assembled an army, and then proceeded to attack and destroy the Yiqu. Having conquered the Rong, Qin also expanded to the north into the territory within the Yellow River's great bend, today's Ordos region. In this way Qin acquired extensive new lands, which became subject to military administration, or 'commanderies.' Only then Qin 'built a Long Wall to guard against the Hu.' (Hu was a generic term to indicate nomadic steppe peoples.) The state of Yan was located in the north-east. During the reign of King Zhao (311-279 BCE), a general who had served as a hostage among the nomads made a surprise attack against the Eastern Hu. He defeated them, and forced them to retreat 'a thousand miles.' Yan *then* 'built "long walls" and established commanderies 'in order to resist the nomads.' But this 'resistance' followed a military expansion well into nomadic territory. The third northern state, Zhao, also had conflicts with steppe nomads. The *Shiji* tells us that King Wuling 'in the north attacked the Lin Hu and the Loufan [both of them are generally

understood to be nomadic peoples – NDIC]; built long walls, and made a barrier [stretching] from Dai along the foot of the Yin Mountains to Gaoque.' Thus, Zhao created an advanced line of fortification, deep into today's Inner Mongolia, encircling the Ordos steppe, then inhabited by pastoral nomads. I could find only one passage that refers explicitly to a state's need to protect itself against the nomads without this being linked to a previous Chinese expansion. This is from a debate that took place in 307 BCE at the court of the same King Wuling of Zhao during which the king strove to persuade his advisors to adopt cavalry and follow the example set by the nomads. The king said, 'Without mounted archers how can I protect the frontier against Yan, the Hu, Qin and Han?' In the context of the debate, however, the nomads (that is, the *hu* people) were not the only threat to Zhao, and throughout the whole speech it is evident that the 'protection' argument was accompanied by an even more pronounced expansionist argument. In any case, unlike the adoption of cavalry, the building of walls is not mentioned in connection with the protection from nomads or any other enemy.

This is the core evidential ground based on which scholars have argued that the northern walls had a defensive purpose, and had been erected as a protection against nomadic attacks. However, none of these statements says that walls were constructed as a result of, or as a response to, nomadic attacks on Chinese people. What they say is that the walls were built to 'repel' or 'contain' the nomads *after* the states had advanced deeply into their lands, had occupied their territory, and had set up military commanderies. The building of fortifications proceeded hand in hand with the acquisition of new territory, the transfer of troops to this region, and the establishment of new administrative units. The states of Qin, Zhao and Yan needed to protect

themselves from the nomads only after they had taken large portions of territory from them.

Having examined the textual evidence, let us turn briefly to the archaeological context. The material culture of non-Chinese people in what has been called the Northern Zone is fairly well known. Archaeological excavations throughout the Great Wall region, reveal the presence of a large number of bronze objects, such as knives and swords, belt plaques, horse ornaments, and precious objects. Archaeologists and art historians have long recognized this as a fully separate cultural complex which developed continuously from at least to the second millennium BCE, and usually cite among its salient features a distinctive metallurgical production and stylistic idiom, in particular the 'animal style,' and connections with the greater Siberian and Central Asian 'Scythian' art. Some of the most precious objects, usually in gold, come from the Ordos region. The remains of the Chinese walls crop up for the most part in the middle of this area, across grassland plateaus and deserts or in rough mountainous country. Chinese Warring States coins, pottery shards, and lacquered objects have been found, but the Chinese presence here at this early time was limited only to sites connected with the wall fortifications themselves, showing that military colonies and troops were stationed in an otherwise 'barbarian' cultural environment. For sure the walls were not built between Chinese and nomads, but ran, from a Chinese viewpoint, through a remote territory inhabited by foreign peoples. Some of these peoples were incorporated within the perimeter of the walls, some remained outside.

If we wish to understand the early function of the walls, it is on the Chinese soldiers that we should concentrate, not on the Chinese farmers. Why were the soldiers

stationed so far to the north, in alien territory? The only conclusion that the evidence would support, in my view, is that the walls' and soldiers' presence in the northern regions is consistent with a pattern of steady territorial growth by the states of Yan, Zhao, and Qin. They developed the system of long lines of fortifications to expand into the lands of nomadic or semi-nomadic peoples, and fence them off. Soldiers defended this territory against nomadic peoples possibly expelled from their pastures. This military push created a pressure on nomads that in turn led to a pattern of hostilities. The walls, in other words, were part and parcel with an overall expansionist strategy by Chinese northern states meant to support and protect their political and economic penetration into areas thus far alien to the Chinese world. This is consistent both with the general trend of relations between Chinese states and foreign peoples and with the political, economic and military imperatives facing the Warring States in the late fourth century BCE. It was at this time that northern Chinese states began to pay attention to cavalry and to develop mounted warfare, and the local pastoral people were surely more suited to this task than the sedentary Chinese. The walls were, in other words, part of a system designed to enclose and establish exclusive access to a precious reservoir of human and material resources at a time when the bitter struggle among Chinese states had become deadlier than ever, and every state was striving to exploit any means likely to increase its chances of survival. The walls were meant as a barrier not only against dispossessed nomads but also against competing Chinese states. As such, the origins of the Great Wall are closely linked to a military and political project that will eventually result in the imperial unification of China. Recognizing the historical origins of the Great Wall does not diminish its symbolic power, but hopefully makes it less

susceptible to a purely ideological interpretation.

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The Ming Fortress at Jiayuguan, blocking passage through the Hexi Corridor.

Archaeological Investigations of Xiongnu Sites in the Tamir River Valley

Results of the 2005 Joint American-Mongolian Expedition to *Tamiryn Ulaan Khoshuu*, *Ogii nuur*, *Arkhangai aimag*, *Mongolia*

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During the summer of 2005 an archaeological expedition jointly mounted by the Silkroad Foundation of Saratoga, California, U.S.A. and the Mongolian National University, Ulaanbataar, investigated two sites near the confluence of the Tamir River with the Orkhon River in the Arkhangai aimag of central Mongolia (Fig. 1). The expedition was permitted (Registration Number 8, issued June 23, 2005) by the Ministry of Education, Culture and Science of Mongolia. The project had multiple goals: archaeological investigations of the Iron Age Xiongnu culture in central Mongolia, instruction of Mongolian university students and Silkroad Foundation volunteers in archaeological field methods, and cultural exchange between Mongolians and Americans. These activities, far from being discrete, were inseparably part of the everyday activities of the expedition. The

archaeological investigations, and their results, are the focus of this article, which is a preliminary and incomplete record of the project findings. Not all of the project data — including osteological analysis of the burials, descriptions or maps of the graves, or analyses of the artifacts — is available as of this writing. Consequently, the greater emphasis falls on one of the two sites. It is hoped that through the Silkroad Foundation, the many different collections from this project can be reunited in a scholarly publication.

Research Design and Project Methodology

Central Mongolia contains a rich, deep, and varied archaeological record that is, unfortunately, poorly known outside of Mongolia and the Russian-speaking archaeological community (cf. Bessac 1965; Davydova 1968).

What is known points to this area as one of the most important cultural regions in the world, a fact recently recognized by the UNESCO through designation of the Orkhon Valley as a World Heritage Site in 2004 (UNESCO 2006). Archaeological remains indicate the region has been occupied since the Paleolithic (circa 750,000 years before present), with Neolithic sites found in great numbers. As early as the Neolithic period a pattern developed in which groups moved southward onto the steppes from the Taiga, adopted pastoralism in some form, and eventually moved south and west. Whether the movement was in response to pressure from other groups to the north or east (pushing) or new opportunities to the south and west (pulling) remains an important arena of research, but the pattern was persistent for millennia. The adoption of metal implements in the Bronze and Iron Ages appears to have done little to change this pattern. The first historically documented group of the Iron Age, called the Xiongnu (Hsiung-nu) by Han scholars, appears on the scene around 300 BCE, presaging a succession of similar steppe nomads that included the Uighur, Turks, and Mongols. The Xiongnu had a complicated and contentious relationship with the Han, raiding as well as trading with Han settlements along the north-western frontier of China. The relative degree to which the Xiongnu political system and its leaders were dependent on the Han is the current subject of

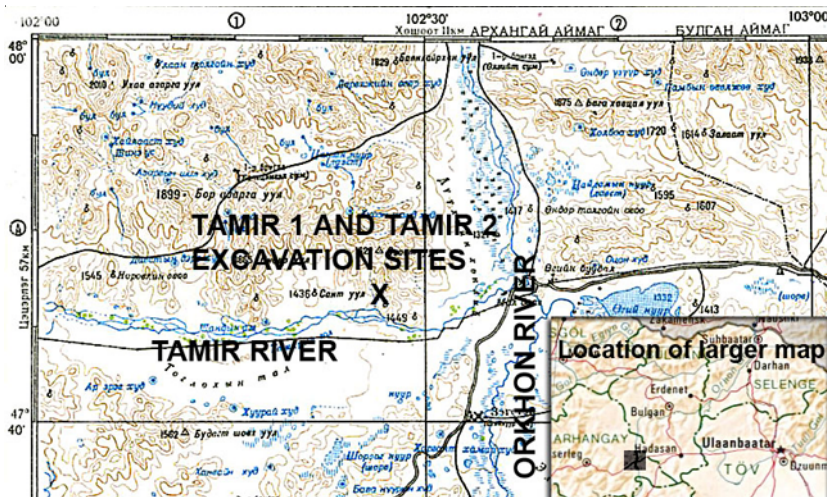


Fig. 1. Map showing location of the Tamir River excavations.

heated debate (Barfield 1994; cf. Di Cosmo in this issue). In an attempt to address some of the questions about this relationship, as well to gather additional information about the nature of the Xiongnu culture, the Silkroad Foundation launched an archaeological expedition to gather new data.

Ethnic Identity, Material Culture, and *Gorodishche*

Specifically, the 2005 expedition sought information in three areas: the ethnic affiliation of the Xiongnu, the affiliation of Xiongnu material culture with Siberian and Han traditions, and the architecture and use of *gorodishche* (earthen-walled structures) by the Xiongnu. Recent archaeological investigations of burial populations in Inner Mongolia and southern Siberia have identified significant europoid Caucasian Bronze Age populations, some as old as the Hirgisur complex of the Bronze Age (Di Cosmo 1999). Some readings of Han texts suggest the Xiongnu were, at least in part, ethnically like modern European populations, a view supported by the recovery of Caucasian remains from some Xiongnu graves (Tumen 2005; see also the article by Batsaikhan in this issue). Furthermore, some scholars have suggested that the Xiongnu, after leaving central Mongolia, migrated west across the steppes to the eastern edges of the Roman Empire, where they were known as the Huns. Others, noting that *hunnu* is a Han term for any barbaric foreigner, and that the Xiongnu and Huns are separated by nearly 200 years in the Han and Roman accounts, suggest that the Xiongnu and Huns are two different groups, albeit of similar nomadic lifestyles. Addressing this issue requires better understanding the ethnic composition of the Xiongnu and Huns and their material culture traditions (Di Cosmo 1999; Miniaev 1995). Excavation of Xiongnu tombs in Mongolia could potentially provide skeletal remains and burial

goods to address the questions of ethnic identity and material culture. The 2005 expedition selected a Xiongnu cemetery in the Tamir River valley, a region from which a good comparative collection was excavated in 2003 by a joint Mongolian-Korean expedition. The cemetery site selected by the 2005 Mongolian-American Expedition was named Tamir 1.

Tamir 1 is located on a prominent granitic outcrop known as *Tamiryn Ulaan Khoshuu* near other cemeteries of the Neolithic, Bronze Age, and Mongol periods. The significance of this place may derive in part from its prominent visibility within the Tamir and Orkhon River valleys, and its proximity to the broad, well-watered floodplains of these major rivers. Investigations from July 20 to August 19, 2005, included the preparation of detailed maps of the site using handheld GPS units, photodocumentation, and the excavation of five graves at Tamir 1.

The third research question targeted a site 10 kilometers to the west of Tamir 1, which we designated Tamir 2. This site consists of three enormous earthen-walled enclosures that (superficially) resemble structures excavated during the Soviet era in the area of Lake Baikal and in the Selenga River valley of southern Siberia. A noteworthy project at the site of Ivolga by Davydova (1968) suggested that these *gorodishche* were fortified, permanent Xiongnu villages, containing tightly packed semi-subterranean houses, pits, metal foundries, and possible animal enclosures. These sites, however, also contain considerable evidence for agriculture, in the form of grain storage pits, large ceramic vessels, agricultural tools, and grinding tools. The variety of features and specialized tools raised the question: did the Xiongnu practice agriculture in tandem with pastoralism (Di Cosmo 1994), or,

alternatively, did the Xiongnu polity incorporate groups with different lifeways, including agriculture, hunting and collecting, and dedicated pastoralism (Barfield 1981)? The 2005 expedition targeted Tamir 2 (1) to address whether the site is a construction of the Xiongnu, rather than another group or a different time period, (2) if built by the Xiongnu, to determine if this was a year-round settlement (permanent), a seasonal settlement, or was built for short term occupation such as fortified refuges, periodic or seasonal gathering places, or special functions (i.e. ceremonial), and (3) to establish the relationship of this site with the cemetery, Tamir 1.

Project History

The general goals of the project were identified in consultations among Adela Lee, Head of the Silkroad Foundation, Dr. Albert Dien of Stanford University, Dr. Mark Hall of the University of California at Berkeley, and Dr. Zagd Batsaikhan of the Mongolian National University, a noted authority on the Xiongnu and author of the definitive work on the Xiongnu, entitled (in English) *Xunnu*. Dr. Hall had worked on a prior excavation with Dr. Batsaikhan. The latter had previously excavated at Tamir 1 and felt that it was a significant Xiongnu cemetery, likely to contain additional intact graves. He had also discovered Tamir 2. The proximity of the two sites offered the opportunity to explore all of the research questions discussed above, as well as offer students of the field school opportunities at survey, mapping, and excavation.

Plans for the project were initiated in 2004, with field work to be conducted in the summer of 2005. Dr. Hall made all of the initial preparations, issuing a call for volunteers in the fall of 2004. Of the dozens of applicants, Dr. Hall selected 14. Unfortunately, just two weeks before the project was

to take the field, other commitments forced Dr. Hall's withdrawal from the project. The Silkroad Foundation subsequently contracted with two of the volunteers — professional archaeologists with prior experience running archaeological field schools — to co-direct the project for Silkroad Foundation. Due to scheduling conflicts resulting from the sudden change in project supervision, neither David Purcell nor Kimberly Spurr was able to participate in the project for the entire four week field term. The Silkroad Foundation contracted with Dr. Wang Binhua, a prominent retired archaeologist formerly based in The Xinjiang-Uighur Autonomous Region in China, to complete the project term after Purcell and Spurr departed, and to provide additional perspectives on the Xiongnu tradition from the western area occupied by the culture and the archaeological traditions of the Peoples Republic Of China. Thus, the 2005 expedition came to have four archaeological directors and a field methodology that combines contemporary trends from three of the major schools of archaeological methodology: American, Soviet (Mongolian), and Chinese. The methods used in survey, testing, mapping, and feature excavation are described below.

Field Methods and Approaches to Data Collection

Site Survey, Mapping, and Documentation

Although it was hoped from the outset that the field school would include the opportunity for systematic surface surveys of the type that form a major part of the American approach to describing settlement systems, time and materials did not allow for this. Instead, the project focused on detailed documentation of each of the sites, with the goal to produce plan maps of each site showing the locations of each archaeological feature, relevant natural features,

and areas subjected to excavations. David Purcell directed this part of the field school. Using a Garmin 12-channel handheld Global Positioning System (GPS) receiver, each of the sites was mapped to scale with 3-5 m accuracy. During this activity, basic metric data was collected for each feature and recorded in tabular form. Due to the size of Tamir 2, and to give all project participants an opportunity to learn site mapping, the recording resulted in a site map of the entire settlement and individual maps of each of the three enclosures (Figs. 21, 22, below). At Tamir 1, the density of graves in the central portion of the site required that we produce a detail map of part of the site, in addition to the overall map. All of the Mongolian students and Silkroad volunteers were able to take part in this activity.

Some surface survey of areas outside of the sites did take place, but at an informal, reconnaissance level. This included a number of individual and group forays around Tamir 1 to investigate the many other grave markers on *Tamiryn Ulaan Khoshuu*, which Dr. Batsaikhan identified as belonging to Neolithic, Bronze Age, and Mongol graves (Fig. 2). On one occasion, Batsaikhan, Purcell, and Spurr drove north of Tamir 2 to visit a site with extensive earthen walls that had been reported by a local herdsman. A rough GPS map of this site seems to show that it is of very different form than Tamir 2, and possibly represents an animal trap and corral from an unknown period, rather than a habitation area.

Test Excavations

The 2005 expedition further investigated Tamir 2 through a series of systematic and judgmental test excavations. The systematic tests consisted of 1 x 1 m hand units placed on a 50 m grid within Structure A of Tamir 2. Fifteen of these units were excavated to 20 cm below the

surface to, or slightly into, a culturally sterile calcic soil. The development of such soils typically requires many millennia, with their formation likely pre-dating the Xiongnu occupation. The test units were located by reference to the GPS coordinates, and thus have a potential locational error of 3-5 m. Relocating these units would be almost impossible for subsequent researchers, so each unit was lined with plastic sheeting and a metal object (coin, or other small trinket) was placed in the bottom center. The units will, therefore, be identifiable with a metal detector and the actual location of the unit could be precisely plotted with reference to a site grid placed with a transit, theodolite, or total station.

Each test unit was laid out with respect to the cardinal directions. Since topographic maps of the project area were not available to the 2005 expedition, Purcell set true north declination on his compass to 9° W, the alignment of the western wall of Structure A. The GPS-derived plot of this wall is 4° E declination, indicating that the builders of Tamir 2 sought to orient their layout to the true cardinal directions, not magnetic. GPS north is slightly askew from True North.

For each volunteer, Purcell then provided instruction on how to set up an excavation unit, make sure that it is square, set a datum for vertical measurement controls, and excavate using hand tools. Each unit was excavated in arbitrary 10 cm levels. Unfortunately, screens were not

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Fig. 2. Surface remains of a Bronze-Age (?) grave on a slope facing Tamiryn Ulaan Khoshuu.

available to sift the soil for small artifacts that are often overlooked when excavating. Profiles were then drawn of the exposed soil stratigraphy in selected units (those that exhibited useful stratigraphy) and plan maps were drawn of the bottom surface of the unit if it exposed a cultural feature or artifact. Selected units were also documented through digital photographs.

To investigate the architecture of the *gorodishche*, three judgmentally selected test excavations were made in Structure B. These consisted of a 1 x 1 m unit (TU 17) placed in a long, low swale that extends partly across the interior of the structure, a 1 x 1 m unit (TU 16) placed within the interior southwestern corner of the wall, and a 1 x 1 m unit (TU 19) placed in a gap of the southern wall near the southeastern corner. All were excavated in arbitrary 10 cm levels initially, with TU 19 being excavated in natural levels below 20 cm. TU 17 exposed what appeared to be a natural cobble and gravel deposit and was discontinued at 6 cm (Fig. 3). TU



Photo © Daniel C. Waugh 2005
Fig. 3. Test Unit 17, Tamir 2 site.

16 exposed what appeared, at first, to be molded dirt (adobe) bricks, and was expanded with 1 x 1 m units to the north and east; these proved to be natural drying cracks in melted construction dirt that has collected at the base of the wall (Fig. 4). Expanded to 1 x 3 m, TU 19 exhibited a series of four cultural fills of visually distinctive colors that appear to represent the construction



Photo © Daniel C. Waugh 2005
Fig. 4. Test Unit 16, Tamir 2 site.

sequence within the wall proper (Fig. 5). A possible post hole was observed in profile in the east end of this unit, perhaps part of a palisade wall or gate.



Photo © David E. Purcell 2005
Fig. 5. Test Unit 19, Tamir 2 site.

Test Unit 18 consisted of cleaning and profiling the walls of a rectangular pit found near the center of Feature 1 (Structure B), in the top surface. The pit measured approximately 1.35 x 1.0 m. After cleaning the pit walls, layers of brightly colored soils and an older, in-filled pit or shaft, were visible. Some of the layers are less than 5 cm in thickness, and alternate regularly, suggesting the periodic renewal of the exterior surface of the mound. The old pit or shaft was slightly north of TU 18, and may have been an ancient looters' tunnel. The conspicuously

vertical walls and rectangular plan of TU 18 suggests that it was excavated by archaeologists, rather than looters. Dr. Batsaikhan was unaware of who would have conducted such an excavation.

Feature Excavations

The excavation of individual archaeological features was the final activity undertaken in 2005, and the primary focus of efforts at Tamir 1. The approach followed methods used previously by Dr. Batsaikhan at this and other Xiongnu sites, with slight modifications at two of the features. Using a compass set to magnetic north, the visible feature (a low rock ring) was divided into quarters along the cardinal directions using string lines, which extended at least 1 m beyond the edge of the rock ring. Vegetation and overlying dirt was cleaned (Fig. 6) from the northwestern quarter first, followed by the northeastern, southeastern, and southwestern. A balk, or untouched strip of soil 20-30 cm in width, was left between each of the quarters (Fig. 7, next page). Using metric graph paper, each exposed stone of the grave surface was then drawn to scale with a string mapping grid, drawing a block 5 x 5 m at a time. The northwestern quarter was illustrated first, and upon completion of the map of that section, the rocks were removed and discarded, and a 2 x 2 m excavation unit was established at the center of the section, with the balks forming two of the edges. Each feature quadrant was treated



Photo © David E. Purcell 2005.
Fig. 6. Cleaning the rock ring of Feature 201, Tamir 1 site.



Photo © David E. Purcell 2005.

Fig. 7. Partially exposed rock ring of Feature 160, Tamir 1 site, view along balk to south.

in this manner, sequentially. The excavation units were excavated approximately 1 m in depth, with the fill being discarded, to expose the opening of the grave shaft proper. After two adjacent quarters had been opened in this manner, profile maps of the balks were drawn to illustrate the stratigraphy of the upper portion of the grave shaft and the collapsed grave monument. The balks were removed once all of the profiles are drawn, and the grave shaft fill was removed as a single stratum down to the tomb. The grave contents were exposed, excavated by hand, and photographed before being removed to complete excavation of the grave. Photography was undertaken almost entirely by Silkroad participants, although not in a systematic fashion; typically, photographs were taken when an interesting find was uncovered and announced. Once the entire grave had been completely excavated, the skeleton and grave goods were replaced in their positions and a final map of the grave was drawn. Vertical controls were not used at Features 97 or 100, including the use of a vertical datum, level lines for the balk profiles, or recording of vertical elevations. Limited vertical control was undertaken at Feature 109.

Purcell initiated several modifications to these procedures

at Features 160 and 201. At Feature 201, each of the quarters was undertaken simultaneously with clearing the vegetation and overburden. During the removal of the rock monument, large quantities of animal bones were observed mixed with the rock, as well as ash and charcoal, concentrated beneath an upright boulder at the southeastern edge of

the ring (a possible headstone). The northeastern and southeastern quarters and part of the southwestern quarter were then excavated carefully by hand to expose a deposit of burned, butchered horse bone, associated with a few artifacts. At Feature 160, excavation proceeded in halves, not quarters, due to its small size. At both features, vertical data were established and elevations were recorded for the present ground surface, top of the grave monument, grave shaft opening, and individual points within the graves. The balk profiles of both features were drawn from level lines, with the entire grave, shaft included, profiled in sections approximately 2 m in thickness. Unfortunately, due to a miscommunication, only the upper meter of the grave shaft was documented in this manner before the rest of the grave shaft fill was shoveled out. The deeper profiles documented the fill sequence of the graves, a procedure that was followed by the 2003 Mongolian-Korean Expedition. In addition, in Features 109, 201, and 160, most artifacts or features found in the graves or grave shafts were mapped and vertical elevations recorded as they were exposed, and each find was exhaustively photodocumented by Dan Waugh, David Purcell, and other project participants. As noted above, this program of photography was

inconsistently applied.

Excavated artifacts were removed to the expedition camp as soon as they could be safely taken from the ground, and were stored in the expedition laboratory in a *ger* that was erected in camp. In this location, artifacts were cleaned, photographed, and illustrated. Dan Waugh systematically documented every substantial, and many of the less complete, artifacts through photographs taken in relatively controlled lighting.

RESULTS

Tamir 1 - The Cemetery

Tamir 1 consists of 287 graves visible on the surface as torus-shaped low mounds of rocks clustered on a south-facing slope around the head of a series of dry washes that are tributary to the Tamir River. Documentation of Tamir 1 entailed the preparation of two maps, and completion of a table that recorded the size, condition, orientation, and attributes of each grave. One map completed in 2005 is a plan of the entire site, shown in relation to the natural drainage system; the other is a detailed plan view of the densest portion of the cemetery. The cemetery encompasses 560 x 390 m, an area of 21.8 hectares. Each grave was documented as a 'feature' and numbered sequentially from 1-290 (three numbers were omitted). The surface expression of the graves ranged from 2 m in diameter to 12 m, with an average of 4.6 m ($n=273$) and modes of 4.0, 5.0, 3.0, and 6.0 m (in order of frequency). The median feature diameter is 4.5 m, ($n=269$). Thirty-one of the graves exhibit single boulders set upright in the ring of rocks, often on the southeastern or northeastern edge, perhaps marking the head of the grave (headstones). The graves located closer to the Tamir River floodplain appear to be smaller in diameter, in closer



Fig. 8. Feature 97, Tamir 1 site (clockwise from upper left): bronze cauldron with iron base, pot, lamp, animal bones, gilt ring of lacquer bowl, resting on pot.

proximity to one another, and more densely clustered than are graves located higher on the slope, farther from the river's edge. Dr. Batsaikhan previously excavated in Tamir 1, but the site has also been subjected to unscientific and unauthorized excavations, including several graves observed in 2005 that appeared to have been very recently looted. Five graves were completely excavated by our expedition in 2005: Features 97, 100, 109, 160, and 201. Excavation revealed that the rock rings were once continuous mounds of rocks piled over the grave shaft, but with the settling of the grave and shaft fill through time, now appear to be mounded rings of cobbles.

Feature 97 contained a nearly complete, but disarticulated, human skeleton and a cache of grave goods at the foot of the grave (Fig. 8) that included a bronze and iron cauldron, a lacquerware bowl with a gilt brass rim (see images, next article), an oil lamp, and several ceramic jars. There was also group of decorative metal and bone objects that may have been horse tack decorations, a bone and metal bit, and a wooden toggle. Two or possibly three other lacquer vessels, less well-preserved, were also present but disintegrated before being documented or described.

Feature 100 contained an articulated skeleton within the remains of a poorly preserved wooden shaft liner. Associated grave goods included a complete white bronze TLV mirror (Fig. 1, p. 36), two ceramic jars, a fragment of cloth (Fig. 9), a ceramic spindle whorl, a complete oil lamp, bronze metal clothing plaques including possible

buttons, a carnelian (?) bead, a bronze cauldron, and a bronze (?) coil-like object of unknown function (possibly a core for a string of coins).



Fig. 9. Cloth (carpet?) fragment with embroidered design. Feature 100, Tamir 1 site.

Feature 109 was a tomb showing evidence of two looters' shafts, but still held a partially intact wooden lining and the disarticulated and obviously disturbed remains of one individual. The funerary offerings that had been overlooked by the looters included a gold earring (less the inset stones) (Fig. 10), a turquoise jewelry setting, two fragments of a large white bronze TLV mirror (Fig. 3, p. 37), three cast glass beads (Fig. 11), a possible iron knife with lacquered



Fig. 10. Gold earring. Feature 109, Tamir 1 site.

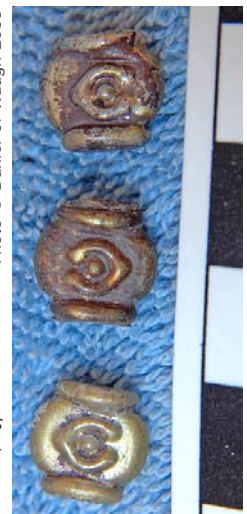


Fig. 11. Glass beads. Feature 109, Tamir 1 site.

wooden handle (Fig. 12, next page), and various rusted iron objects. Despite the later digging in the tomb, handholds and footholds were identified by Dr. Wang in the shaft walls as having been cut during the graves initial excavation, providing ingress and egress for the excavators.

Feature 160 exhibited a looter's shaft in the profile of the grave shaft; at the bottom of the looter's shaft was the displaced cranium from the burial (Fig. 13, next page). Quantities of charcoal were scattered throughout the grave

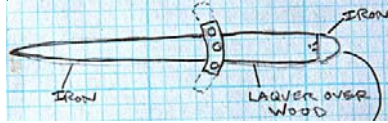


Fig. 12. Iron knife with handle of lacquered wood. Photo in situ, approx. 310 cm. depth (© Daniel C. Waugh); sketch of possible original appearance (© David E. Purcell). Feature 109, Tamir 1 site.



Fig. 13. Skull in Feature 160, Tamir 1 site.

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shaft starting around a depth of 50 cm and continuing to the bottom. At 231.5 cm the excavation revealed a rectangular rock "lining" of the grave with a rock pile in the center (Fig. 14).



Fig. 14. Feature 160, Tamir 1. Rock "lining" of grave.

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It is possible that these rocks had been placed on the top wooden boards of the coffin (no longer extant). The lowest layer of the coffin walls was intact, and there seemed to be traces of a pattern of a carpet that might have been laid on the ground below the body. At the SE end of the coffin was a separate compartment (Fig. 15)



Photo © Daniel C. Waugh 2005

Fig. 15. SE wall of coffin, sherd of jar visible in center. Feature 160, Tamir 1 site.

containing two ceramic jars and a possible cooking vessel, and just inside the coffin were remains of a lacquerware vessel (Fig. 16). Beyond the NW end of the coffin some vertebrae, probably of a sheep, were found. Apart from the skull (see above), the middle section of the skeleton was in the presumed original position laid NW to SE. However, the mandible had been displaced and was found in approximately the pelvic area, a result presumably of the action of the looter. The grave goods included a complete bronze mirror of possible local manufacture (Fig. 5, p. 38), a metal earring, a ceramic spindle whorl, four stone beads, assorted iron objects including possible belt buckles/plaques, all badly corroded, and traces of at least one additional lacquerware object.



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Fig. 16. Pots, charred vessel and remains of lacquer bowl (lower right). SE end of grave, Feature 160, Tamir 1 site.

Feature 201 was also an apparently



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Fig. 17. A string of wushu coins on a metal 'core.' Feature 201, Tamir 1 site.



Fig. 18. Jar in Feature 201, Tamir 1 site.

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remains of what was apparently a lacquered box, 13 clothing toggles or clasps of bronze (?) with some traces of fabric wrapping, at one intact large ceramic jar (Fig. 18) and sherds of a second one, an iron



Photo © Daniel C. Waugh 2005

Fig. 19. Bronze and lacquer handle for an eared cup. Feature 201, Tamir 1 site.

base for a cauldron or standing lamp, a compound bronze and lacquerware object (Fig. 19), apparently the handle of a lacquered eared cup, from which additional fragments remained, and various iron objects including a belt buckle. One iron ring or clip was found within the burned horse offering in the rock tumulus above the grave, as were a few sherds.

Tamir 2 - The *Gorodishche*

Three *gorodishche* or earthen-walled fortifications, labeled Structures A-C from west to east, form Tamir 2 (Figs. 20, 21). The enclosures extend in an east-west line 1,725 m across a broad, gentle

plain at *Hermental*, west-northwest of Tamir 1. The plain is a part of the Tamir Valley that is bounded by ranges of hills to the west, north, and east, and extends in a long slope that gradually flattens to the south where it merges with the floodplain of the river. From Tamir 2, *Tamiryn Ulaan Khoshuu* is a dark, prominent landmark on the horizon to the east-southeast. The expedition mapped the structures at Tamir 2 and produced plan view maps of each structure individually, to show detail, and of the three together to show their relationship. During the collection of the UTM

coordinates with the GPS receivers, the site was traversed many times on foot, with detailed notes recorded about the form, condition and orientation of the *gorodishche*. No artifacts dating before the modern period were observed, other than a single pottery

sherd observed (but not collected)

on the top of an earthen mound (Feature 1) within Structure B. No artifacts or buried features or cultural deposits were exposed in the test units. This seems unusual, in light of Davydova's (1968, p. 217) comment that Xiongnu settlements of Mongolia differed from Ivolga in containing large quantities of (roof) tile, a fact that she attributed to 'some other type of dwelling, different from those of the Ivolga *gorodishche*.'

The soils consisted of two strata. Stratum I, the uppermost, is a medium brown silty sandy loam, humic, containing abundant rootlets and some fine gravel. It is 8-20 cm thick and uncompacted. Its contact with the underlying Stratum II is typically horizontal (occasionally undulating) with an indistinct 1-2 cm thick contact zone. Stratum II is a compact pale brown sandy loam that exhibits a Stage I-II calcium carbonate development. It extends from 8-20 cm below the present ground surface to an undetermined depth. It contains variable quantities of gravel, up to small cobble-sized.

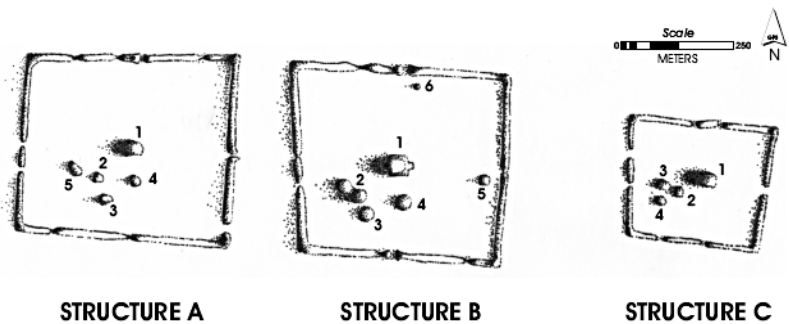


Fig. 21. Overview plan map of Tamir 2, depicting the spatial relationship of the three *gorodishche* (structures). Numbered forms within the enclosing earthen walls are large earthen mounds, to which arbitrary feature numbers were assigned. Breaks in the walls are apparent formal gates and other cuts or gaps in the continuity of the walls. (Drawing © David E. Purcell 2005)



Photo © Daniel C. Waugh 2005

Fig. 20. Panorama (composite of three photographs) of Tamir 2 settlement site, taken at 7:15 PM from point at altitude of 1455 m looking SW by W along length of site.

All rocks exhibit a 3-6 mm rind of calcium carbonate, with projections from the downward surfaces. Most of the rocks are schistic metamorphic. Stratum II contains significantly less moisture than does Stratum I.

Three hand excavation units were judgmentally placed in or near architectural features (such as walls and gates) to expose details of their construction, and were in some cases expanded to follow interesting deposits. These are described above. The previous excavation on the central mound in Structure B was also cleaned and profiled (TU 18), providing details of its construction. No artifacts were recovered from any of the judgmental units. Given the vast areas encompassed by each of the *gorodishche* — ranging from 7.2 hectares in Structure C to 16.3 hectares in Structure A — the absence of findings by this very limited testing is not surprising. What is surprising, however, is the complete lack of surface or subsurface artifacts. Further research is necessary to establish the age and cultural associations of these features through archaeological means, despite their apparent similarity to other features east of Ulaanbataar previously studied by Dr. Batsaikhan.

Structure Descriptions and Interior Features

Structure A, the westernmost of the three enclosures, measures 490 m east-west by 450 m north-south in maximum dimensions. The enclosing wall is 16-18 m in width and appeared to vary from 0.5 m to 2.0 m in height above the interior ground surface, with a shallow ditch visible at the base of the wall on the exterior, except in three locations that correspond with gaps in the wall. Nine locations along the wall exhibit visible dips or reductions in elevation, four of which extend to the interior ground level, providing grade-level access to the

structure's interior. Major gaps appear in the approximate centers of each of the walls, with those on the north and east walls at grade. The gaps on the south and east walls feature visible ramps extending from the gap down to the exterior, over the ditch. The gaps in the east, west, and south walls are flanked by sections of the wall that are broader at the base and higher in elevation than surrounding sections of the wall; these three openings appear to have been formal gates. The east and west walls also feature gaps at grade level that are not regularly spaced along the wall. These may represent more recent cuts to provide access, but additional research is needed to fully describe the construction and modification sequences of these features. The north wall exhibits three shallow gaps, in addition to the gap in the wall center, which is at grade but is blocked on the exterior by the ditch. The ditch appears to have been a borrow ditch for soil used to build the enclosing walls, but also appears to have functioned as a dry moat, based on its placement to the exterior of the wall. Each corner of Structure A stands 0.4 to 1.0 m higher than contiguous sections of wall, and is much broader at the base, forming a swell that extends outward 4-5 m beyond the walls. These may have been the bases for tower-like elevated features, or bastions.

Structure A contains five earthen mounds of various shapes, ranging from nearly square to nearly circular. The largest, Feature 1, stands nearly 3.5 m above the ground and is near the center of the structure, in line with the gates on the east-west and north-south axes. The other mounds stand 0.9 to 1.4 m above the surrounding ground. Feature 5 has a small square rock alignment on top, and Feature 1 has a rock ring or *ovoo* base near its center. A possible earthen ramp slopes down the eastern end of Feature 3. A low swale or ridge links Feature 1 with Feature 4;

whether this is a natural or constructed feature was not determined. An iron pipe was found standing upright in the southeastern 'tower' of Structure A.

Structure B is the central earthen enclosure, nearly square in shape, measuring 455 m east-west by 440 m north-south to the outer edges of the ditch (Fig. 22, next page). Its construction is similar to that of Structure A, with gates visible in the north, east, and south walls, with accompanying towers. The north wall includes two shallow gaps equidistant between the corners and the central gate. The south wall exhibits two shallow gaps but without regular spacing. The west wall exhibits a shallow gap in the wall center, but without flanking mounds, and a grade level opening to the south. Only the north and south gates and the southern gap in the west wall are at grade level. The Structure B walls are also enclosed by a shallow (15-20 cm deep) ditch, which is continuous around the exterior except at the south gate, which spans it. Six interior earthen mounds were documented, as well as a seventh, low mound that may be natural. Like Structure A, the largest mound (Feature 1) is near the center, in line with the gates. This mound stands approximately 2 m above the ground, but exhibits a much more formal shape in plan that did Feature 1 of Structure A. It is rectangular with obvious ramps that extend east and west toward the gates. A cluster of small boulders and a rectangular pit were found on top; a single potsherd was found within this pit, which was cleaned and profiled to document the mound construction sequence. The upper portions of the mound, based on this profile, appear to have been made of alternating layers of brightly colored soils. The arrangement of the interior features — with a small circular mound (Feature 4) south of Feature 1, and two other mounds in the southeastern quadrant (Features 2 and 3) — is

cultures, periods, and transitions. Once patterns have been delineated, then subsequent individual projects can contribute through the recovery of more specific data that supports, refutes, or refines the model. For example, the finding of a certain type of diagnostic artifact in association with datable materials may supply a date for just that artifact type or for an entire phase, depending on the context.

Several types of artifacts recovered from the graves of Tamir 1 appear to be important finds, particularly the TLV mirrors recovered from Features 100 and 109, the glass beads from Feature 109, and the lacquer bowl from Feature 97. The specific significance of the mirrors is described at length by Prof. Lai elsewhere in this issue. In general, however, the richness and size of the graves, in comparison with other Xiongnu graves excavated by Drs. Batsaikhan and Wang, suggest that this cemetery (Tamir 1) may represent the final resting place of more important or wealthy Xiongnu individuals. The orientation of the heads to the east rather than the typical north orientation, greater number of ceramic vessels, and the relative lack of military hardware are also unusual aspects to Tamir 1. However, the degree to which ancient grave robbing has affected the composition of the grave goods cannot be evaluated at this time. Some graves, such as Feature 109, were clearly looted many centuries ago, leaving only those artifacts overlooked or discarded (such as the broken mirror) by the robbers, and skeletal remains in disarray. What is then difficult to explain are objects such as the golden earring from Feature 109, which appears to have been stripped of its jewels, but was left in the grave, probably by accident. Given the site's location in the Orkhon Valley, it is tempting to speculate that this cemetery was used by the elite of Xiongnu society, perhaps indicating that an important or central

Xiongnu settlement was located nearby. If Tamir 2 was that settlement, our efforts so far cannot even substantiate that Tamir 2 was ever inhabited like Ivolga, much less that it was associated with the cemetery. To date none of the graves at Tamir 1 reveal the complex structures and richness of goods found in excavations at Noin Ula, Gol Mod and Tsaraam (on the last, see the article by Miniaev in this issue).

Clearly, much additional research needs to be conducted at Tamir 2, which perhaps should become the focus of future efforts. The size of the site, its apparent lack of artifacts, and its relative proximity to *Tamiryn Ulaan Khusuu* suggest that it too, is an important place, but its function remains unknown. A military purpose, is suggested by the existence of the walls and the presence of apparent fortifications along them. Future research needs to be directed at (1) establishing the age of the site, (2) identifying and excavating features within and outside of the walls, (3) comparing the site architecture with other earthen-walled structures of the central Mongolian steppes, (4) recovering materials that link the site with Tamir 1 or with other sites in the region, and (5) conducting regional settlement analysis to better understand the types and placement of other sites in the region.

Much of the research at Tamir 2 will need to be accomplished using remote sensing methods, including aerial and satellite photographs, on the ground systematic survey, and remote prospecting for features in and around the site itself. It is clear that pedestrian surface survey, as practiced in the western United States, is not appropriate for the Mongolian steppes, given the lack of visible artifacts on the surface, the vast areas to be examined, and the nature of the known types of sites. Some pedestrian survey should be conducted in support of

careful review of aerial and satellite photos and systematic survey using horses, camels, or vehicles. Such surveys could easily be carried out by following GPS gridlines, looking for visible features. Areas around recorded sites and in proximity to eroded surfaces should be inventoried more intensively on foot, systematically following GPS gridlines. A check of Google Earth revealed that Tamir 2 is not visible due to low resolution; higher resolution images need to be examined. If publically accessible images of this region are not available, it would be worth having aerial photos flown of this area, after obtaining the needed government permission.

The interior, and the exterior perimeter, of Tamir 2 should be examined using ground penetrating radar, magnetometer, and electrical conductivity instruments. Any subsurface features, including our test units, pits associated with recent herder camps, and ancient features such as houses, storage pits, etc. should be apparent. Remote sensing is now used routinely in some settings, and the cropped grass of the steppes is ideal for the use of all of these methods. Interior features, such as houses and pits, were readily visible on the ground surface at Ivolga as low mounds with upright stone slabs and depressions; the *gorodishche* at Tamir 2 did not exhibit any of these indications of buried features. Systematic test excavations are not recommended, as hundreds or thousands would have to be excavated to complete even a small, and probably not statistically valid, sample of just one of the structures. One of the structures should be completely mapped by remote means; based on the results, the other structures may be sampled in areas where features are likely. The sheer size of these structures suggests that they were built, at least in part, to shelter herds of animals, so features may not be present in large sections of them. Given the

placement of the interior mound features that are visible, it is expected that some sort of internal partitions or fences may have been used to divide the interior space, although the form of such a fence is unknown. Excavations of possible features should be undertaken to 'ground truth' the findings. However, fine mesh excavation screen must be part of any further program of test excavations, in order to catch small objects. Often artifacts as large as coins can be missed, and coins are very important for dating sites in this area.

Tamir 1 also yielded important information, particularly about the types of artifacts that might be expected at this cemetery in future excavations, particularly the laquer vessels. Preparation for subsequent excavations of graves should include having on hand appropriate conservation materials and methods to salvage *intact* these priceless artifacts for further study and display. Future projects should also be better prepared to transport fragile artifacts and human remains back to Ulaan Bataar, by including sturdy boxes, plastic tubs, and other packing materials as part of their field equipment. In situ mapping of the graves as finds are made, with recording of vertical elevations, is highly recommended as part of standard operating procedure. This will make the collected data compatible with current standards in use around the world. Another arena in which more rigorous field methods should be applied is the collection of soil and plant samples for analysis. Advances in the study of preserved pollen, plant remains, wood species and dating, radiocarbon dating, and faunal remains have greatly enhanced the current knowledge of subsistence, trade, burial and religious practices, and chronology. A central tenet of historical archaeology is to test the archival record against the physical remains of the past and to illuminate the lives of individuals

or groups not described by the official chronicles, especially the poor and those of minority or dispossessed status.

The use of 3-D laser scanning of the graves is also recommended, but not strictly necessary. This type of mapping uses computer-controlled lasers to measure to sub-millimeter accuracy the forms of features and their contents; this could include the surface expression of the collapsed grave monuments, the grave and grave shaft, and the skeleton and associated funerary objects. The advantage of this approach is that it generates an electronic dataset that can be output as a virtual illustration of the feature, or even used to create an exact scale model of the feature. Such an approach is desirable if public interpretation and presentation of data is a component of future projects. For example, a Xiongnu grave model could be generated from such data and installed in the Mongolian National University, or presented to the public on line or modeled in relief and displayed publically. Laser scanning also supports the creation of web-based displays that allow viewers to manipulate their point of view via the Internet.

The overall impression of the sites investigated by the 2005 expedition is that these are important places within one of the cultural cradles of the world's civilizations. Within a 60 km radius are the Uighur capital, the Qidan capital, the Mongol capital, and the burial sites of the Türk leaders Bilge Qaghan and his brother Kültegin. Does the Orkhon Valley also hold the Xiongnu capital, and are Tamir 1 and 2 somehow associated with it? These are just some of the exciting questions that the 2005 expedition has raised, and as with all good science, we are now left with more questions than answers, and more questions than before we undertook the project.

About the Authors

David Purcell and **Kimberly Spurr** are professional archaeologists who live in Flagstaff, Arizona. They graduated in 1993 with Master's degrees in anthropology from Northern Arizona University and have worked in a variety of settings since. Purcell has worked for contract archaeological research companies and is currently employed as Principal Investigator and Projects Manager by Four Corners Research of Tularosa, New Mexico. He also works as the Coordinator of the Kaibab-Vermilion Cliffs Heritage Alliance, a non-profit organization dedicated to research, preservation, and interpretation of the cultural heritage of the region of Arizona lying north of Grand Canyon. Spurr worked for the Navajo Nation Archaeology Department for 13 years, leaving this summer to form Past Peoples Consulting, LLC, which specializes in the study of human remains and burials, in both archaeological and forensic settings. She directed the preliminary phase of a multi-year investigation of a Paleoindian site in North Dakota this summer, and will also work with the Museum of Northern Arizona to excavate sites along the Colorado River in Grand Canyon this coming fall.

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The Challenges of Preserving Evidence of Chinese Lacquerware in Xiongnu Graves

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This brief communication may serve as an appendix to the report by David Purcell and Kimberly Spurr on the *Tamiryn Ulaan Khoshuu* excavation in 2005. My goal is not to provide a scholarly analysis of the abundant evidence we uncovered of Chinese lacquerware — I lack the expertise to do that — but mainly to document it and to highlight the challenges which must be addressed if such evidence from future excavations is to be properly preserved and studied.

One is struck by the frequency with which lacquerware (or at least traces of its existence) is reported in excavations of Xiongnu graves and also the apparent lack of its serious analysis. The term can, of course, encompass a variety of objects of different composition, ranging from those merely decorated with a resin-based paint to objects made of layers of wood, clay and/or cloth impregnated with lacquer and then covered with additional layers of paint. With notable exceptions, the evidence from Xiongnu graves is of surviving paint layers or fragments, not intact objects on which the paint was applied. As was the case in our Tamir excavations, such survivals may end up being 'preserved' primarily in the photographic record, although this should not always have to be the case.

The best known examples of rea-

sonably well preserved Chinese lacquerware in Xiongnu tombs are the 'eared cups' (Fig. 1), painted table legs, chopsticks and an animal-shaped pouring vessel found in the excavations at Noin Ula in northern Mongolia. Indeed, the inventories of the Noin Ula graves are full of references to lacquered objects (Rudenko 1962, pp. 117 ff.; pls. VI, XLVIII; Trever 1932, pls. 27, 29-31). As is well known, the circumstance of the graves having been flooded there resulted in remarkably good preservation of organic material, including carpets, clothing, a wide variety of wooden objects, and much more. The eared cups at Noin Ula are of particular interest here: at least one of them had both bronze handles and an inscription dated 2 BCE indicating its manufacture in Sichuan, the major location of Han lacquer production (*Dschingis Khan*, nos. 16, 17, pp. 50-51).

At Tamir 1, evidence of lacquer was found in at least four of the five excavated graves, in all cases the designs being in red (or orangish red) and black. Where possible, it was photographed in situ, but with one exception, none



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Fig. 1. Lacquerware eared cups excavated at Noin Ula. Collection of the Hermitage Museum, St. Petersburg.



Photo © Daniel C. Waugh 2005

Fig. 2. A box of lacquer fragments from Feature 201, Tamir 1 site.

of what we might term 'reasonably intact' lacquer objects could be preserved. Once exposed to the air, the paint layers begin to dry and curl. Given their fragility, some means of immediately sealing them and enclosing them in appropriately shaped packing would be required. Thus, absent such means, the surviving lacquer ended up further fragmented in a jumbled collection in a box (Fig. 2). Most of the larger fragments, especially those with painted designs, were then photographed and packed, but whether they



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Fig. 3. Fragment of lacquer object (after removal) from SE end of Feature 97, Tamir 1 site.

might subsequently be flattened and pieced together remains to be seen. Should the designs be of any value for identification, at least a visual record has been preserved.

Here is a brief summary of the lacquerware finds at Tamir 1:

Feature 97. The grave contained at least four lacquerware objects:

in the SE end, near the head of the deceased (fig. 3); in the SE corner, probably an eared cup (fig. 4); midway along the S side of the coffin, another bowl or cup (fig. 5); on top of the array including pots and a cauldron, a bowl with a gilded brass rim (figs. 6, 7). The latter was best preserved, with some large fragments that retained the layers

preserved, with some large fragments that retained the layers



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Fig. 4. Remains of lacquer vessel at SE corner of coffin, Feature 97, Tamir 1 site.



Photo © Daniel C. Waugh 2005

Fig. 5. Remains of lacquer vessel, middle of S side of grave. Feature 97, Tamir 1 site.



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Fig. 6. Remains of lacquer bowl with gilded brass rim. Feature 97, Tamir 1 site.



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Fig. 7. Detail of preceding.



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Fig. 8. Inner side of a fragment of the metal-rimmed lacquer bowl from Feature 97.

of cloth and clay (Fig. 8). A Chinese inscription (wishing good fortune) was found on what was probably the interior bottom of the bowl (for analogous examples on eared cups, see *Zhongguo* 1993-1998, pp. 44, 52-53). David Purcell has drawn a reconstruction of the bowl, based partly on the photographs (Fig. 9, next page).

Feature 109. The most striking lacquered object found here was the iron knife with a lacquered wooden handle depicted above (Fig. 12, p. 26). Unfortunately, by the time it was photographed in situ, the paint fragments had already dried and curled. The knife was at a level above

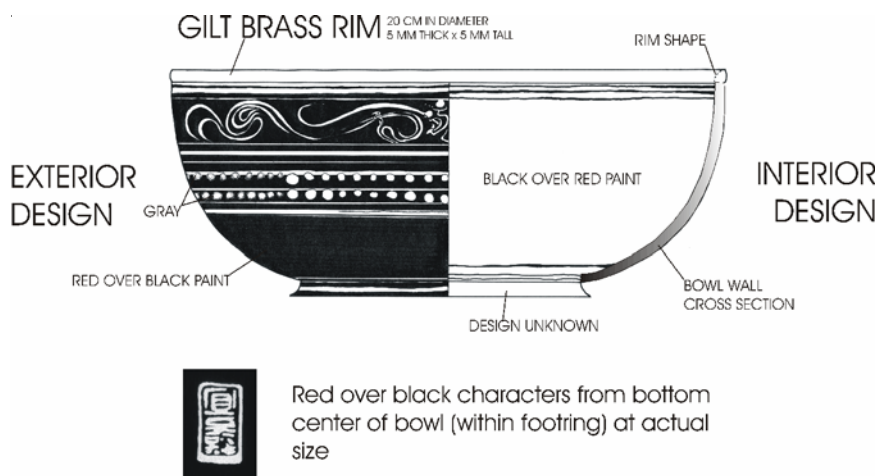


Fig. 9. Lacquerware bowl discovered with Feature 97 grave goods, shown at 36.7 percent of actual size. The rim band was recovered (Bag 65), but the bowl disintegrated within hours of exposure. The drawing was prepared directly from the vessel fragments and from high resolution digital photographs taken by Dan Waugh. Original drawing and illustration by David Purcell.

that of the actual burial and near the NW end of the grave, suggesting it might have been displaced and dropped there when the grave was looted. At least one red lacquerware vessel (Fig. 10) seems to have been located in the NW end of the grave below the knife but above the level where one of the bronze mirror fragments was found and in an area where there was a collection of various animal bones (the position is analogous to that of the bowl with gilded rim in Feature 97). Some additional fragments were found in what would have been the location of the waist of the corpse.



Fig. 10. Lacquer fragment from near NW end of grave in Feature 109, Tamir 1 site.

Feature 201. The remains of a lacquerware vessel were wrapped partly around the large, intact jar in the NE corner of the grave,



Fig. 11. Lacquer fragment that had been wrapped around large pot in NE corner of Feature 201 grave.

Photo © Mongolian National University, Department of Anthropology and Archaeology 2005



Fig. 12. Remains of a lacquerware eared cup with a metal handle (at top), photographed in situ. Feature 201, Tamir 1 site.

alongside where the head of the corpse would have been located (Fig. 11). The most substantial find was that of an eared cup, where one bronze handle with its lacquer inset was preserved along with a sizeable piece of the paint layer for the bowl (Fig. 12; also Fig. 19, p. 27 above). Its exact location in the grave is not clear to me but presumably was recorded. The design on the lacquer inset of the handle is somewhat similar to that on the dated cup found at Noin Ula. In approximately the center of the grave, there was what appears to have been a lacquered wooden box in which the small string of *wushu* coins was found. It is worth noting that pieces of a lacquered box were also found at Noin Ula. Lastly, I would note what seemed to have been the dark "shadow" left by a lacquered object approximately in the location where the head of the corpse would have been at the SE end of the grave.

Feature 160. There was at least one lacquered vessel at the SE corner of the grave, inside the coffin (Fig. 13, next page). A reasonably large portion of the paint had been preserved. With the approval of Prof. Wang Binghua, we used a hastily improvised technique of trying to remove it intact, by laying cardboard down on the top and



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Fig. 13. Remains of lacquerware bowl (s) SE corner of coffin. Feature 160, Tamir 1 site.

then slicing under it with a trowel and inserting another piece of cardboard to create a 'sandwich' that encompassed all that remained of the cup. When this was done, the object had already begun to deteriorate from the drying and curling of the paint layer. There was also substantial other evidence of lacquer in the grave, notably in the center of the SE end near the bulkhead that separated the compartment with the pots, and in the pelvic area at the center of the grave, where there were both part of what appeared to be the bottom disk of a bowl and paint layers intermixed with the bronze mirror and spinning weight (Fig. 14). It seems quite certain that at least



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Fig. 14. Lacquer fragments (indicated by arrows) with bronze mirror (left) and spinning weight (right). Feature 160, Tamir 1 site.

lacquerware bowl, the locations in the first instance being either at the head of the grave (at Tamir 1, this means the SE end), in the pelvic area either directly on or next to the corpse, and in the grave goods piled to the north of the feet (the NW end of the coffin). While eared cups appear to have been common enough, the bowl with the gilded rim and the remains of the lacquer-handled knife are unusual finds (for the bowl cf. *Zhongguo* 1993-1998, p. 174).

More systematic photography and measurement would help considerably in documenting the lacquerware. I was able to undertake that primarily in Features 97, 109 and 160 but was absent at the point where the metal-rimmed bowl in Feature 97 was emptied of the dirt in it and its surviving fragments removed. While some of the best-preserved fragments of that bowl (which would have helped in analyzing its structure) were those

this latter location was that of a lacquered vessel.

still lodged in the underside of its rim, by the time it was brought back to camp, most had fallen out. It is conceivable that careful emptying of the bowl (spoonful-by-spoonful, grain-by-grain) would have revealed more of the body intact, but we now have no visual record of what was there. Presumably there are methods for preservation which could be applied at the time such lacquer is first uncovered. Even short of sophisticated technical means (such as a transparent resin or moldable foam), a technique similar to that used in Feature 160 might be adopted to preserve those pieces which have been flattened and can be isolated from other finds. This rather crude approach would not have worked, of course, for the bowl in Feature 97, since it preserved in situ much of its original curvature.

By the time excavation of the graves had been completed and the objects found in them laid out for a final drawing that then served as a documentary "map" of their contents, what lacquer there was had been further fragmented, if preserved at all, and any traces of where it had been eliminated when the floor of the pit was scraped down. Laying back in place fragments of lacquer (as opposed to bones, metal objects, etc.) was not part of the process of the final mapping of the grave (and in the circumstances *could* not have been).

While the location of the lacquer might help flesh out our knowledge of burial ritual, the odds in fact are good that most lacquer fragments in Xiongnu tombs would be useless for analysis, unless a technique exists or can be devised to pinpoint origin or date from their chemical composition. We would certainly wish to know what can be learned from the painted designs on the lacquer, something that perhaps could be accomplished if the huge corpus of Han-era lacquer is systematized. Whether that will reveal anything about the date of

our Xiongnu graves or the particular external connections of those who occupy them is hard to know.

The challenges of preservation which we faced and were not equipped to solve were certainly not unique. Dr. Miniaev has recorded many instances of fragments of red lacquer in his excavations of the Dyrestui Cemetery (Miniaev 1998). He has mentioned in correspondence that one of the most pressing priorities in preserving the important finds at Tsaraam on which he reports in this issue is to conserve the lacquerware, which there includes a wooden staff of interesting design. There is a good reason for the lack of systematic analysis of the lacquerware in Xiongnu tombs, for the majority of the evidence simply disappears; it is only the relatively intact pieces which have a chance of surviving.

About the Author

Daniel Waugh is a retired professor of history at the University of Washington, where he taught pre-modern Russia and courses on Central Asia, including a survey of the Silk Road. He has participated in Silkroad Foundation summer institutes in Dunhuang and the Tamir excavation in Mongolia and edits the Foundation's journal. One of his principal tasks in retirement will be to maintain the Silk Road Seattle website <<http://depts.washington.edu/silkroad>>, a project for which he is the founding director.

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Fig. 1. The bronze mirror from Feature 100, Tamir 1 site.

The Date of the TLV Mirrors from the Xiongnu Tombs

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In the summer of 2005, the Silkroad Foundation and the Mongolian National University conducted their first season of joint excavation at a Xiongnu cemetery in Arkhangai *aimag* in Central Mongolia. Among their findings were three bronze mirrors. After describing them, I shall focus in this short essay on the first two, TLV mirrors of Chinese provenance. My goal will be to establish their date in the context of a broader discussion of the problems of dating bronze mirrors but not to attempt an examination of other issues such as Han-Xiongnu relations.

The first specimen from Feature 100 is a beautifully decorated intact mirror about 10 centimeters in diameter (Fig. 1, facing page). It belongs to a type referred to as 'TLV' mirrors in Western Sinological literature, because the shapes of the main decorative elements on the back of the mirrors resemble the Latin letters T, L, and V. At the center of the back of the mirror is a hemispherical knob pierced for a ribbon or textile cord, to facilitate the holding of the mirror (Fig. 2). The knob is surrounded by a



Fig. 2. Center of TLV mirror from Feature 100, seen from an angle.

square center field (also called knob-seat), which is decorated with a large, simple quatrefoil. The main decorative zone is framed between the center square and two outer bands, one a narrow band with a comb-tooth pattern and the other a wide rim ornamented with three concentric rings with a saw-tooth pattern. Four pairs of T's and L's are placed on two perpendicular axes through the mirror's center point, while the four inverted Vs are located at the upper outside corners of the four quadrants thus created. On the left and right sides of each T are placed two nipples; two birds, in elegant simple relief, comma-shaped curves and short lines punctuate the spaces between these elements. The overall design of the mirror is perfectly symmetrical, simple, and elegant.

The second specimen (this one from Feature 109) is a fragment of another TLV mirror, further broken into two pieces that were found in different locations in the tomb (Fig. 3). The main decorative zone is largely missing; only one corner of the fragment has the elements of the L and V and a pair of birds with long tails. This mirror is larger than the one excavated from Feature 100. Unlike the intact one from Feature 100, this fragmentary mirror bears a section of a



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Fig. 3. TLV mirror fragments from Feature 109, Tamir 1 site.

cast inscription (Fig. 4), which reads:

... do not know aging; when thirsty, [they] drink from the spring of jade; when hungry, [they] eat of jujubes. [They] roam...

不知老, 渴飲玉泉飢食棗, 浮游...

According to similar inscriptions (see below), it appears that these descriptions refer to the immortals dwelling in a transcendental paradise. Mirrors of this type are significant not only because they



Fig. 4. Section of TLV mirror from Feature 109, showing inscription.

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Photo © Daniel C. Waugh 2005



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Fig. 5. Detail of mirror from Feature 160, Tamir 1 site.

represent the best specimens of bronze production in the Han period, but also because their inscriptions reflect changing religious ideas in early China.

The third mirror, from Feature 160, is about 7 centimeters in diameter (Fig. 5). It is intact, but its craftsmanship is rather poor, compared with that of the other two. The decorative scheme is barely discernible. Only a small knob is found at the center of the mirror back. This type of mirror seen in Xiongnu tombs is most likely a low-quality, local imitation of Han mirrors.

The chronology of bronze mirrors, along with dating by coinage and pottery vessels buried in tombs, have been important methods used in cross-dating early Chinese and Xiongnu burials. However, the dating of bronze mirrors is a thorny issue for scholars of Chinese art and archaeology. Almost all of the existing chronologies have included in their studies clearly spurious pieces or other mirrors of dubious origins (Umehara 1943, Bulling 1960, Okamura 1984 and 1993, except Zhou 1986; see also the discussion in Cammann 1961, Bulling 1962, Cammann 1962). Bronze mirrors have been highly valued and collected since the North Song dynasty (960-1126). As a result of their high value, forgeries and replicas have been produced – some of which have found their way into private

collections and museums (Bulling and Drew 1971-72).

The problems with these sources have been further exasperated by the preference of collectors for mirrors with inscriptions containing dates, which in turn only encouraged the production of fake dated mirrors. As a result of this situation,

the mirror chronologies have been skewed, because of the reliance of scholars on inscriptions with dates (Loewe 2001-2). Many distinguished scholars, including the Japanese scholar Umehara Sueji, who were connoisseurs of Chinese mirrors, were clearly aware of the situation and had paid particular attention to the issues of forgery. Yet in the end, they too were occasionally duped by fakes.

Fortunately, in the last half century, many bronze mirrors have been discovered under scientifically-controlled archaeological excavations in China. It is now possible to establish a chronology of bronze mirrors solely based on archaeological materials. Since the 1950s, all studies of Han mirrors have incorporated, to different degrees, the newly available archaeological materials (Loewe 1979); yet so far no systematic and methodologically rigorous study that utilizes exclusively excavated specimens has been attempted. We will have to wait to see how significantly an archaeologically-based new chronology would differ from the extant chronologies. Though a full reinvestigation of the chronology of Han bronze mirrors is beyond the scope of this essay, some of the issues involved in dating TLV mirrors will be mentioned below. In my examination, I shall consider only excavated materials.

Long having been the focus of Japanese, Chinese and Western

scholarship on bronze mirrors, the TLV mirror consists of the basic motifs of the letters T, L, and V. They used to be referred to as *guiju* mirrors in Chinese literature (J: *kiku*), because it was considered that the V and L resembled the compass (*gui*) and a carpenter's square (*ju*). Early scholarship focused on the connections between the TLV mirror and the sundial (Yetts 1939, pp. 148-165) and between the TLV mirror and the diviner's board (*shi*) (Kaplan 1937), for several specimens of sundials and diviner's boards were available for comparison at the time.

As many scholars later realized, however, these motifs actually constitute the board of an ancient game called *liubo*, a popular pastime among the elite during the Warring States and Han periods (Yang 1947; Komai 1953). Thus scholars have suggested that the TLV mirrors should be renamed as *boju*, 'game board,' mirrors (Zhou 1987). But the Japanese scholar Hayashi Minao commendably insisted that although the TLV pattern shared many similarities with the *liubo* game board, it is not a game board *per se*; rather the TLV mirror, the *liubo* game board, and the sundial, all share the same cosmographical symbolism (Hayashi 1989, pp. 8-9; also Cammann 1948, pp. 160-1). It now becomes clear from archaeological evidence that there was more than one type of *liubo* game board in early China, and the configuration of those are slightly different from that of the TLV mirrors (it has only four V's and two L's, and six I's; see Li 2002). Thus it is inappropriate to equate the *liubo* game boards with the TLV motif. In current Japanese literature, the TLV mirror is still called a *kiku* (Ch: *guiju*) mirror. For convenience and consistency, and because it is more descriptive rather than interpretational, I shall use TLV to refer to these mirrors throughout this essay.

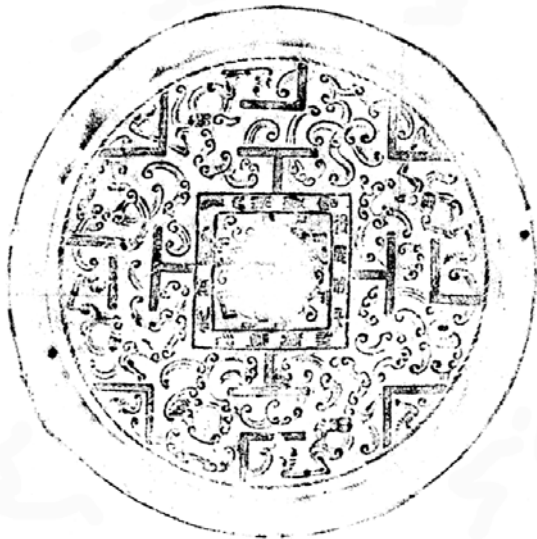


Fig. 6. One of the six TLV mirrors excavated in Hunan (the largest, 14.4 cm). After Zhou 1986, No. 2, p. 106.

The TLV pattern appeared on the *liubo* game board earlier in the Warring States period, but it did not appear on bronze mirrors until the early Han dynasty. The Swedish scholar Orvar Karlbeck, an avid collector of early Chinese bronzes, speculated that the TLV motif on bronze mirrors was first introduced by Liu An (?179-122 BCE), the Han prince of Huainan, who was famous for his keen interest in astronomy and cosmology and who patronized the compilation of a comprehensive astronomical, topographical, and philosophical treatise called *Huainanzi* (cited from Bulling 1960, pp. 20-21). However, it appears in archaeological records that the introduction of the TLV motif onto mirror decoration was earlier than Liu An's time, and the cosmological significance of the decorative motif was more widely appreciated in Han society than in the small circle of Liu An's court.

The TLV mirror was popular not only in Liu An's court in Huainan but as well in the imperial court

and other princely kingdoms of the Han dynasty. Some of the earliest known examples are six inscribed bronze mirrors excavated from an early Western Han tomb in Hunan province (the largest d. 14.4 cm) (Fig. 6), in which TLV mirrors with dragon arabesque (*panchi*)

with funerary coins — clay imitations of real coins of Emperor

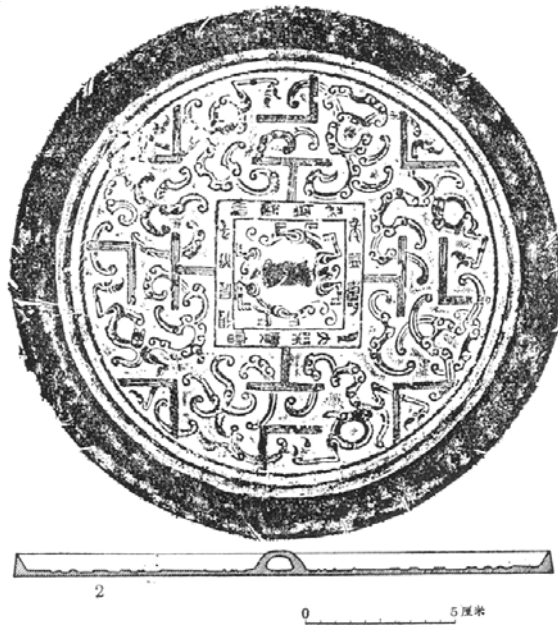


Fig. 7. Bronze mirror from Mancheng M2, d. 18.4 cm.

Wen's reign (r. 179-156 BCE) — for the dead to use in the afterlife (Zhou 1986, p. 70). Similar clay coins also appeared in the famous Mawangdui tomb no. 1 (datable to shortly after 168 BCE), roughly contemporaneous with Emperor Wen. These examples show why

Fig. 8. Bronze mirror excavated from Louzhoucheng in Hebei province. After Louzhoucheng 2000, p. 186.

coinage is often more accurate for dating the burials, because in many cases buried coinage is in large quantities and was the currency of the time. This type of TLV mirror lasted into Emperor Wu's reign (140-87 BCE). A famous example, with the same inscription as the Hunan mirror, is the one discovered in the tomb of Dou Wan (d. ca. 113 BCE) (Fig. 7), the consort of Emperor Wu's elder half-brother Liu Sheng (d. 113 BCE), at Mancheng in Hubei province.

The TLV motif also appeared on other types of mirrors, such as the so-called *caoye* 'grass-leaf' mirrors, named after the leaf-like decoration found on the back of the mirrors. The specimen in Fig. 8 is a mirror (d. 11.6 cm) discovered in Tomb no. 23 in the Western Han-period cemetery near Louzhoucheng, Qichun, Hubei province. Similar mirrors have also been discovered in Shaanxi, Sichuan, and Yunnan (Kong 1992, pp. 203, 204, 206).

The majority of extant TLV mirrors are associated with a decorative motif called *sishen*, 'four spirits,' the four imaginative animal symbols of the cardinal directions (along with the color symbolism): the Green Dragon of the East, the White Tiger of the West, the Vermillion Bird of the South, and the Dark Warrior (a combination of a tortoise and a snake) of the North. Developed during the Warring States and Han periods, these creatures often filled the spaces between the T's,





Fig. 9. Bronze mirror excavated in Xi'an. After Cheng and Han 2002, fig. 38, p. 132.

L's, and V's. Since the spaces between the T and the L on the axes are often too narrow to fit the animals, they are often moved off the axis to fill the eight spaces flanking the four inverted V's. Such is the case in the TLV mirror excavated near Xi'an, Shaanxi province (Fig. 9). As a result, the four spirits were elaborated into eight figures; in addition to the four spirits, there are a bird, a toad, a goat, and a winged immortal. The Xi'an mirror was buried together with a type of coinage (*'xiaoquan zhi yi'*) minted only during Wang Mang's currency reform during the Xin dynasty (9-23 CE), an interregnum between the Western and Eastern Han dynasties. Thus, the combination of the TLV and the 'four spirits' motif and its variations marks the regular, or classical, TLV mirror in early China.

In the 1910s, Japanese scholar Tomioka Kenzō published several articles, arguing that the word *'xin'* ('new') which appeared on ten inscribed TLV mirrors actually referred to the Xin dynasty, established by the usurper Wang Mang. Thus, these mirrors could be dated to Wang Mang's time (collected in Tomioka 1920). These mirrors have the following

characteristics: 1) one mirror carries an inscription specifically dated 10 CE, the second year in Wang Mang's reign (Loewe 2001-2, pp. 240-4); 2) the others either mentioned the important political events during Wang Mang's reign, such as the establishment of the idealized Confucian ritual structures *Biyong* and *Mingtang*; 3), or contain the formula *'Wangshi zuo jing'* ('The Wang family has made the mirror'); 4), or another formula *'Xin you shantong'* ('The Xin has good copper').

Because Wang Mang's dynasty has long been considered illegitimate, and his usurpation was condemned in the subsequent Chinese history (especially during the Eastern Han dynasty), it seems reasonable to assume that 1) the Han imperial workshops would stop producing mirrors with explicit association with the Xin dynasty after the fall of Wang Mang; 2) later mirror manufacturers and consumers would also consciously avoid this association. If these two statements could be proved valid, then those mirrors with an explicit reference to the Xin in their inscriptions would be a good indication of their date.

Tomioka's theory was accepted immediately by scholars in Japan as well as in China; no one has questioned the validity of the two assumptions. Furthermore, Takahashi Kenji attempted to extend Tomioka's conclusions by arguing that mirrors with similar inscriptions found in Japan were also manufactured during Wang Mang's era (Takahashi 1919). But Umehara Sueji soon pointed out that Takahashi's assertion contradicted the material evidence

found in ancient Japanese tombs in which these mirrors were discovered, and he emphasized the importance of paying particular attention to mirror typology (whether it was a TLV mirror, pictorial mirror, etc.) in applying Tomioka's theory. Umehara further pointed out that the regular type of TLV mirror was not limited only to Wang Mang's reign, but instead, it ranged from the late Western Han to the Eastern Han and even later (Umehara 1919).

In retrospect, Tomioka's theory is marred, however, by the questionable examples he used. First, as Michael Loewe has pointed, the 10 CE mirror is of dubious provenance. Among all the extant inscribed TLV mirrors, only two have precisely dated inscriptions; and both of them are likely counterfeit (Loewe 2001-2, pp. 240-5). Second, only three mirror inscriptions, as far as I know, refer to the establishment of the *Biyong* and/or *Mingtang*; and the doubtful 10 CE mirror is one of the three. One of the other two is now in the collection of the Shanghai Museum (Kong 1992, p. 323). In my opinion, the authenticity of it is also questionable. Most importantly, there is no scientifically excavated mirror bearing the references to the establishment of either the *Biyong* or the *Mingtang*. The absence of corroborative archaeological evidence does not necessarily mean that the mirrors in question are fakes. But this should at least alert us to do more investigation regarding the authenticity of the mirrors. We should exercise utmost caution for those mirrors of unknown provenance when their authenticity is not backed up by comparable archaeological materials.

Third, although the formula 'The Wang family has made the mirror' is attested on excavated mirrors, these mirrors are either not TLV mirrors or are datable to a much later period in the Eastern Han dynasty. Such is the case for

the pictorial mirror excavated in Yangzhou, Jiangsu province (Wang et al 1985, p. 95). As Umehara noted above, the 'wang' on bronze mirrors did not necessarily refer to Wang Mang and his dynasty. Fourth, the references to the 'xin' or 'xinjia' (the Xin family, i.e. the Xin dynasty) or the formula 'the Xin has good copper' on mirror inscriptions are not always an indication that these mirrors could be dated to the Xin dynasty. For example, a bronze mirror from a private workshop excavated from Hunan that archaeologist Zhou Shirong dates to the middle of the Eastern Han period bears the following inscription (Zhou 1986, no. 80, p. 143):

The Du family has made the mirror, which is greatly without blemish; the Xin has good copper, which came from Danyang; it is refined with silver and tin, and it is pure and bright; to the left the Dragon and to the right the Tiger eliminate the inauspicious; may you forever prosper and have joy without end.

杜氏作鏡大毋傷，新有善
銅出丹羊(陽)，涑冶銀錫
清如明，左龍右虎辟不
陽(羊)，長富樂未央

In this inscription, the mirror designer mistakenly exchanged the characters for *yang* (in 'Danyang') and *xiang* (in 'buxiang,' 'inauspicious'). Although there is the reference to the Xin, the content of the inscription and the archaeological context suggest that this mirror be dated to the middle Eastern Han rather than to Wang Mang's time. Admittedly, this is also not a TLV mirror. This again supports Umehara's aforementioned qualification to Tomioka's rules.

Furthermore, Higuchi Takayasu's research indicates that

some low-quality mirrors bearing the formula 'the Xin has good copper' are dated to the Eastern Han rather than Wang Mang's era (Higuchi 1953). Therefore, the second assumption on which Tomioka based his theory could not



Fig. 10. Bronze mirror excavated in Hunan. After Zhou 1986, no. 52, p. 124.

be viewed as valid, since there are cases in which later private mirror workshops still used the formulae referring to the Xin after the fall of Wang Mang.

The use of 'xin' and 'wang' in the inscriptions even after the fall of Wang Mang deserves further exploration. The use of the family name Wang could be a pure coincidence since Wang has been a common family name in China, and there is no evidence suggesting that this Wang refers to Wang Mang. The use of the formula 'The Xin has good copper' in private workshops could have just followed the formula and models created during Wang Mang's imperial workshop for commercial reasons. But on the other hand, the first assumption still seems to be valid. I am not aware of any case of similar reference to the Xin on products from the Eastern Han imperial workshop.

With these caveats added, now we can test the rest of Tomioka's theory using archaeological evidence. One example is a TLV mirror of high quality excavated in Hunan. It has the following inscription (Fig. 10):

The Xin [dynasty] has good copper, which comes from Danyang, it is refined...; this excellent mirror manufactured in the Shangfang [i.e. the imperial workshops] is truly very skillfully made, above are the immortals who do not know aging; when thirsty, [they] drink from the spring of jade; when hungry, [they] eat of the jujube. [They] roam about all under the heaven and swim the four [seas].

新有善銅出丹陽，涑；尚方
佳鏡真大巧，上有仙人不
知老，渴飲玉泉飢食棗，
浮游天下遨四[海]。

It seems that the first half of the inscription was truncated and followed immediately by another set of inscriptions. In general, mirror inscriptions are often formulaic; that is, set phrases were picked and chosen to create a new inscription. It probably reflects the operation of a certain modular system in designing mirror inscriptions and mirror motifs (see Ledderose 2000). And sometimes carelessly two sets of inscriptions were discretely put on the same mirror. What interests us here, in addition to the similar content on our mirror from Feature 109, is the word 'xin' at the beginning of the inscription. Although it is sometimes mistakenly translated as 'in recent times' (Cheng and Han 2002, p. 107), its reference to the Xin dynasty is clear when we contrast it with another formula of a similar TLV mirror of the early Eastern Han period (Fig. 11, next page), which carries the following inscription:

The Han [dynasty] has good copper, which comes from Danyang; it is pure and bright.



Fig. 11. Early Eastern Han bronze mirror. After Zhou 1986, no. 59, p. 130.

To the left the [Blue] Dragon and to the right the [White] Tiger rule the four quarters. Eight sons occupy the center. The Vermilion Bird and the Dark Warrior conform to the Yin and Yang forces.

漢有善銅出丹陽，清且明。左龍右虎 主四滂(旁)，八子居(?)中央，朱爵(雀)玄武順[陰陽]。

This mirror is of high quality. Similar examples bear the inscription 'Shangfang,' the imperial workshop in charging of the production of bronze and lacquer utensils for imperial consumption. Although the basic formula created during the Xin dynasty is still in fashion, here 'the Han' replaces 'the Xin' in order to avoid the connection with Wang Mang's Xin dynasty. In some cases, the formula 'The Xin has good copper' changed to 'Here is good copper, which came from Danyang' 此有善銅出丹陽 (Fig. 12).

Through the above analysis, it seems clear that imperial workshops of the Xin dynasty did create the classical TLV mirrors with formulae such as 'The Xin has good copper.' Therefore this type

Fig. 12. Eastern Han bronze mirror. After Zhou 1986, no. 63, p. 133.

of TLV mirrors could be dated to the Xin dynasty; furthermore, on stylistic ground, mirrors with similar decorative scheme could be datable to the Xin dynasty.

Japanese scholar Fujimaru Shōhachirō has attempted to use a typological method to refine the TLV mirror chronology by distinguishing the late Western Han TLV mirrors from those of the Xin dynasty and later (Fujimaru 1982). He divides the decorative elements into four categories — the

rim decoration, the saw-tooth band, the number of the nipples, and the inscription. He classifies different known TLV mirrors according to these categories. What he found is an interesting pattern of correlation: the TLV mirrors have four nipples and with or without the four animal figures are always decorated with plain rim with oblique comb-tooth between the rim and the main decorative zone. He called this group Type A mirrors. And the Type B mirrors always have eight nipples and various rim decorations. Then he



looked at the elements of the A and B types on non-TLV mirrors, and found that the Type A elements (four nipples, plain rim, and oblique comb-tooth band) are shared by many Western Han mirrors, while the Type B elements belong to the Wang Mang and the Eastern Han period. Thus, TLV mirrors with plain rim and four nipples could be dated to the late Western Han period. This is largely corroborated by archaeological data from Luoyang in Henan province (Fujimaru 1982, 939-940). Archaeological materials also confirmed that, as Umehara and Higuchi pointed out, that regular TLV mirror lasted into the Eastern Han period; and after the middle of the Eastern Han, simplified TLV mirrors appeared in the archaeological record, many of them produced in private workshops rather than in the imperial workshop of the Eastern Han dynasty.

According to their stylistic characteristics, the two TLV mirrors excavated from the Xiongnu tombs belong to the classical TLV mirrors, and are datable to the Xin dynasty or to the early to middle Eastern Han period. An example similar to the complete mirror from Feature 100 was found at Shangsunjiazhai, Datong in Qinghai in a brick-chambered tomb of the early to middle Eastern Han period (Fig. 13, next page). The Shangsunjiazhai mirror is about 11 cm in diameter, and decorated with a simple quatrefoil knob-seat and three rings of saw-tooth pattern on the rim. In the main decorative zone, among the TLV motifs, there are eight birds on both sides of the four Vs, which is the same as those on the mirror from Feature 100. There is no clear indication of the ethnicity of this tomb occupant, but in a

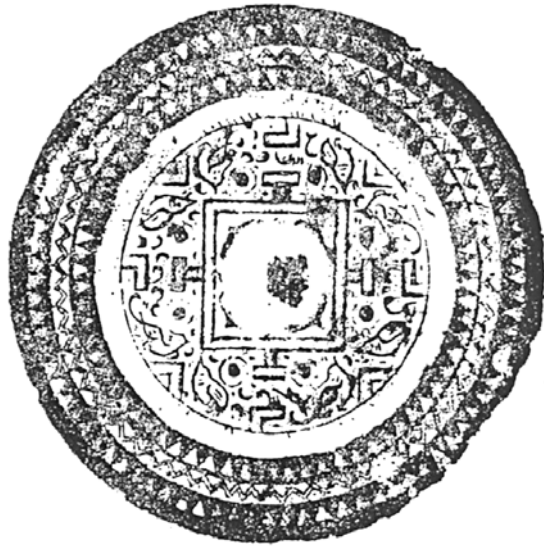


Fig. 13. Bronze mirror from a brick-chambered tomb at Shangsunjiazhai, Datong, Qinghai. After Qinghai 1993.

similar brick-chambered tomb of late Eastern Han period at the same cemetery, archaeologists discovered a bronze seal with the official title that the Han government bestowed upon the leader of the Xiongnu. The excavators suggested that these brick chamber tombs all belong to the Xiongnu (Qinghai 1993).

The fragmented mirror from Feature 109, moreover, is probably a little bit earlier than the intact mirror from Feature 100. The original inscription must have run over 30 characters based on the size of the mirror and the arrangement of the characters. The content of the inscription, like that in Fig. 12, describes the realm of the immortals, which is connected with the cult of the immortals that developed in the middle Western Han dynasty and gained great popularity during the late Western Han, the Xin and the Eastern Han dynasties. The ubiquitous presence of the TLV motif on mirrors, coffins, and other objects reflected this religious frenzy in late Western Han and Wang Mang's time (Suzuki 2003). That is also the circumstantial

evidence for the Xin or early Eastern Han date of the fragmented mirror, since this was the time when the cult was at its peak.

In this essay, I have discussed the date of two TLV mirrors excavated from the Xiongnu tombs in Central Mongolia through a reexamination of previous theories on dating the TLV mirror. The extant chronology of early Chinese mirrors should be rigorously reinvestigated against the large number of mirrors available now through archaeological excavations in the past sixty years. These

scientifically excavated bronze mirrors, such as these from the Xiongnu tombs, are essential for the reconstruction of a reliable framework in which the past of cultural contacts and cultural events can be placed.

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Guolong Lai is an assistant professor of Chinese Art and Archaeology at the University of Florida. Trained as an archaeologist and paleographer at Beijing University, he received his Ph.D. at UCLA in 2002. His recent publications include "The Diagram of the Mourning System from Mawangdui," *Early China*, 28 (2003); "Valuing the Past in China. The Seminal Influence of Liang Sicheng on Heritage Conservation" (co-authored), *Orientalism*, 35/2 (2004); and "Death and the Otherworldly Journey in Early China," *Asia Major*, 18/1 (2005). He is currently working on a book manuscript using archaeological materials to study early Chinese religions. E-mail: <gllai@ufl.edu>.

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Photo © Daniel C. Vaughn 2005

The bronze mirror fragment with the inscription, as it emerged in the excavation of Feature 109, Tamir 1 site.

Foreign Tribes in the Xiongnu Confederation

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Although the surviving written sources contain too little information about ancient nomads of Inner Asia, archaeological findings of the last decade enable us to reconstruct a great deal about them and their history. We are both enriching our knowledge and testing previous assumptions. This new material is essential for establishing different influences on the ethnic composition and cultural level of the ancient Inner Asian nomads. Scholars have devoted much attention to establishing the relationships between ancient nomads in the west of Eurasia and those of the east. Yet the inadequacy of source materials has prevented this problem from being solved convincingly. Of particular value has been the new paleo-anthropological information from recent excavations. For example,



Fig. 1. Feature 109, Tamir 1 site, in the process of excavation.

more than 20 Xiongnu burials, some with europoid craniums, were found at Naimaa Tolgoi, Erdenemandal sum, Arkhangai aimag. Also the 16 graves so far excavated from among the 370 at Tamiryn Ulaan Khoshuu (the Tamir 1 site) have yielded 5 unbroken europoid craniums, and two of the ten Xiongnu graves excavated some ten km from that site contained europoid craniums.

The design of these burials and the grave contents are quite similar to those of Xiongnu burials in other parts of Mongolia and Transbaikalia. The three walled enclosures found at the Tamir 2 site 10 km west of Tamiryn Ulaan Khoshuu have a design similar to Xiongnu walls in other locations (see drawings in the article by David Purcell above). While the date of Tamir 2 has not yet been determined, it may be connected with the cemetery at Tamiryn Ulaan Khoshuu.

Despite similarities, the Tamir 1 graves have some features which distinguish them from other Xiongnu graves, viz.: the greater depth (three to four meters) (Fig. 1), wooden bulkheads, the orientation of the bodies, infrequent finds of cattle bones and weaponry, and the number

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Fig. 2. Bronze cauldron with an iron base, excavated in Feature 97, Tamir 1 site.



Photo © Daniel C. Waugh 2005

Fig. 3. Antler and iron decorations, probably for a harness, excavated in Feature 97, Tamir 1 site.

of pieces of pottery. Most of the graves had been plundered. Yet important and interesting objects remained, such as a bronze bell, bronze cauldrons (Fig. 2), and decorations made from bone (Fig. 3). All these features are probably to be connected with the culture and agriculture of the foreign tribes which were members of the Xiongnu confederacy. These tribes paid tribute to the Xiongnu and were responsible for agriculture.

The Chinese written sources indicate that the northern Xiongnu conquered tribes such as the Hunyu, Qushe, Dingling, Gekun, and Xinli. By the time the *Shanyu*



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Fig. 4. A broken grinding stone from Feature 109, Tamir 1 site.

Modun wrote to the Han emperor in 176 BCE he could claim that besides the Donghu there were as many as 30 small and large tribes which had submitted to the Xiongnu. Among them have to have been tribes speaking both Mongolian and Turkic languages. Among the most important tribes with which the Xiongnu had extensive relations was the Wusun. The written sources from the second century BCE indicate that they first lived in the area of what is today western Gansu province and then were forced to move further west under their leader, the Kunmo. Their political and trade center was Chigu, an important center on the Silk Road. When in 105 BCE the Wusun ruler received a Han princess as a bride, the Shanyu responded by sending his daughter to the Kunmo, a move that would have important political consequences for the Xiongnu.

In 73 BCE the Wusun made some changes within their territories, separating them into three parts: central, eastern, and western. As the Han began to strengthen their control of the Western Regions, in the period 64-51 BCE resistance developed among some of the peoples in Inner Asia. The power of the Wusun grew, but then civil strife developed between two major factions. This war provided an opportunity for the Han Dynasty to use the Wusun against the Xiongnu and take control of the Silk Road. During this period of

extended conflict, migrations from east to west were undoubtedly accelerated and occurred more than once.

The sources indicate that the Wusun was a nomadic tribe which always sought in its migrations grasslands and water for

its cattle. Since the Wusun lifestyle was identical with that of the Xiongnu, it is no surprise that they could adapt easily to the climate of Mongolia. Some sources suggest that the Wusun settled there some time before 138 BCE.

Statistical analysis of cattle bones tells us that they were in fact semi-nomadic. Burials at Aktas which are related to the Wusun period contain, among many other items, a stone mattock, a bronze scythe and 11 complete and 15 broken grinding stones (Fig. 4). These items form the main evidence that the Wusun were involved in agriculture. Excavation near this site has uncovered an agricultural area (60-150 m²) with a simple irrigation system.

Most of the Wusun burials are round and located alongside a river. The dead are usually placed in the grave without a coffin, laid out straight and facing west. Decorations, pottery, and weaponry were placed on the left, right and above the head. Researchers have determined that there are three types of Wusun burials in the Semirech'e basin (westernmost Xinjiang; easternmost Kazakhstan—Ed.). The most numerous of these types is the third, where the grave diameter is approximately 5-10 m, and the contents include 1-2 pots, iron knives, bronze earrings, and various decorations.

Researchers have divided the Wusun remains into four periods:

4th-2nd centuries BCE, 2nd-1st centuries BCE, 1st-3rd centuries CE, 3rd-5th centuries CE. Also they have demonstrated that the Wusun's anthropological characteristics have not changed throughout the four periods and thus might be assumed to have been established as early as the 3rd century BCE. The anthropological features indicate that the Wusun had mixed mongoloid-europoid faces, just like people from the Tian-Shan, where this type of face was probably established after the 3rd century BCE. However, the materials from the Tianshan have more mongoloid characteristics than do the findings from Semirech'e. If we then compare the cranium found at Naimaa Tolgoi in Mongolia, with other materials from Inner Asia, it turns out to have the same anthropological characteristics as Wusun craniums. This mixed type is not only found in Naimaa Tolgoi but also in Central and Eastern parts of Mongolia.

Written sources indicate that another europoid tribe which was a component of the Xiongnu was the Huzi (in some sources written Zihu). Chinese historian Ma Changshou, has suggested that the name Huzi is a combination of Xiongnu and Zi, and the name Zihu is the same as Zi. While the sources do not tell us enough about this people's anthropological characteristics, they provide some interesting suggestions deserving of attention. For example, Zhang Ming indicates that they have a high nose and long beard. Chinese historian Yao Weiyan uses Han dynasty sources to prove that in their culture and outward appearance the Huzi were part of the Yuezhi, who in turn at one time were part of the Xiongnu. G. Sukhbaatar has asserted that they were a europoid people from Central Asia. Thus, even though the sources do not reveal anything about the life style and boundaries of the Huzi, it seems that that there were two europoid tribes among the Xiongnu.

We cannot say for sure that burials from Tamiryn Ulaan Khoshuu, Emeel Tolgoi, Naimaa Tolgoi are precisely from the Wusun period; so this association so far is a guess. Further, we need to take into account the fact that Indoeuropean tribes were already migrating from the West to western parts of Mongolia as early as the Neolithic, Eneolithic, and Bronze Ages, and once there they mixed in among the native people. By the time of the Xiongnu they were settled in the center of the empire, which meant that not only their culture but also their anthropological characteristics began to change and disappear. Yet there is still sufficient evidence in the sources to identify some of the burials at the given sites as being those of the Wusun.

Finally we can say that the Xiongnu people who emerged from the Wusun later participated in the process of the establishment of the Turkic-Mongolian ethnic group. Both the written sources and archaeological findings prove that the carriers of this culture migrated into and settled in the western part of the Xiongnu empire.

Note: The author expresses his deep appreciation to the Silkroad Foundation for co-sponsoring the 2005 Tamiryn Ulaan Khoshuu Expedition.

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Investigation of a Xiongnu Royal Tomb Complex in the Tsaraam Valley

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The Xiongnu, otherwise known as the Asiatic Huns, created a powerful alliance of cattle-breeding tribes in the late third to early second century BCE and then dominated the eastern part of Central Asia for four centuries. Systematic studies of Xiongnu archaeological sites have been carried out for more than a century. At present, materials of considerable value in the characterization of settlement complexes and cemeteries of various types have been obtained. However, elite barrows, which usually contain important

information about social structure, material culture, and the art of a particular society, are neither well-known nor systematically investigated using archaeological techniques.

In 1996 the Trans-Baikal Archaeological Expedition of the Institute of History of Material Culture, Russian Academy of Sciences, St. Petersburg, initiated a survey of the Tsaraam valley, situated 1.5 km to the south of Naushki village (Buriat Republic, Russian Federation) (Fig. 1). Archaeological work at the

Tsaraam Cemetery began in the nineteenth century with the discovery of the site in June of 1896 by the pioneer of Xiongnu archaeology, Iu. D. Tal'ko-Gryntsevich. He recorded, '...more than 20 barrows, dispersed in a forest' in the Tsaraam location. In June 1903, Tal'ko-Gryntsevich and Ia. S. Smolev excavated five of the burials. All of them had been robbed, and only few artifacts were found (Tal'ko-Gryntsevich 1999: 117-118). Tal'ko-Gryntsevich drew a schematic map with an approximate location of the

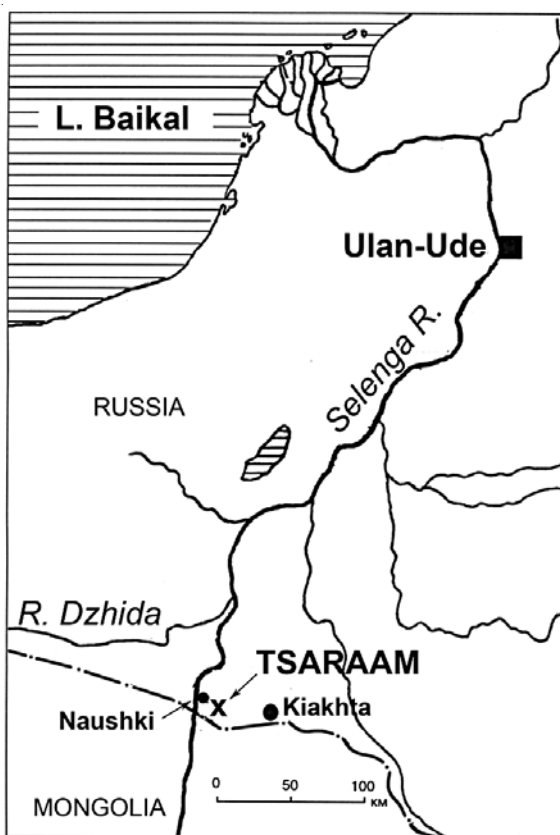


Fig. 1. Map showing location of the Tsaraam Valley. Copyright © Sergei S. Miniaev 2006.

burial site; however, over time the cemetery was forgotten. In September 1996 the cemetery was rediscovered by the Trans-Baikal Expedition, which made an accurate map marking the location of all barrows. The survey showed that in the valley were concentrated the largest burial structures of the Xiongnu now known in Russia, and these are among the largest anywhere. In 1997, the expedition began to excavate the cemetery and chose to focus on the large and central Burial Complex No. 7 (Fig. 2). The Russian Humanities Foundation, the Institute of History of Material

culture of the Xiongnu confederation.

Site Description

The Tsaraam valley is situated 30 km to the west of the town of Kiakhta (Kiakhta district of the Buriat Republic, Russian Federation), not far from the Russian-Mongolian border (E. 106° 08'61.3", N. 50° 21'22.8"; 650-670 masl). The length of the Tsaraam valley from north to south is 1.5 km, and its width approximately 700 m east to west. Low mountains with pine forest border the eastern section of the valley while the western section

the central part of the valley. In total, the area known to have burials measures approximately 600 m north-south and 400 m east-west. The largest barrow of the cemetery is located in the northern part of the valley, and 300 m to the southwest a line of seven additional large barrows stretches from the northeast to southwest. The large barrows have similar surface construction, which includes a low square mound with a round depression in the center. Around several of the large barrows are located smaller barrows which, according to both the historical sources and recent archaeological evidence, are likely to have been sacrificial interments. The combination of a central large barrow ringed by several smaller barrows can be considered a single mortuary complex.

Judging from their external and internal structural similarity to other Xiongnu sites such as Noin Ula or the Elm valley, the Tsaraam tomb complexes presumably date to the Xiongnu period. The Tsaraam group features large burials too and is therefore thought to be related to the highest social strata of the Xiongnu confederation.

Surface and Internal Structures of the Central Barrow

Barrow No. 7 is not only the largest Xiongnu barrow in Russia but also one of the largest known at present anywhere. The surface construction of the central barrow consists of a quadrangle-shaped platform surfaced with clay. It measures approximately 29 x 28 m with a height of approximately 1.5 m above the present surface. The entrance chamber is 20 m long and extends to the south of the central platform. The walls of the platform are sided with stone slabs marking the perimeter of the walls. Several stone stelae were discovered, some of which were intact and others of which had fallen away from the platform.

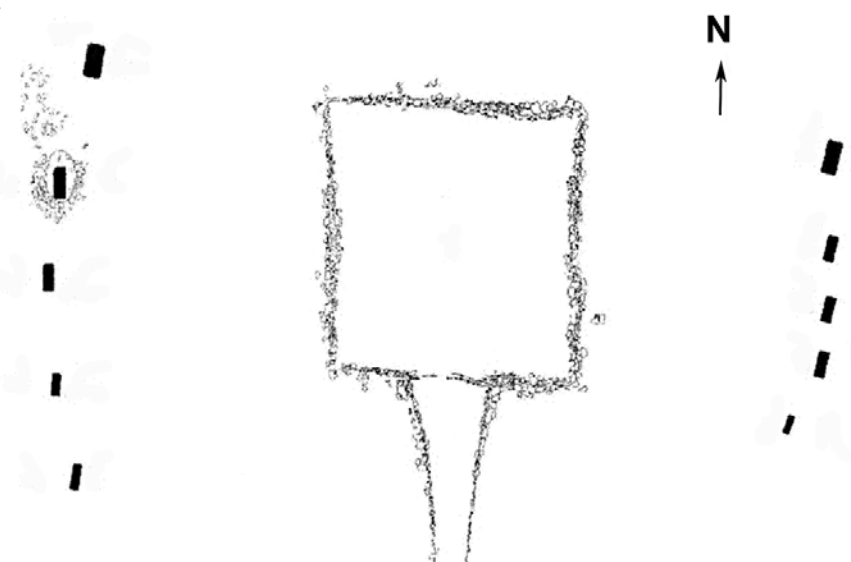


Fig. 2. Burial Complex No. 7 in the Tsaraam Cemetery. Drawing © Sergei S. Miniaev 2006.

Culture, Russian Academy of Sciences and National Geographic Society (United States) provided financial support for this project. Excavations during the field seasons of 1997-2005 investigated surface and internal constructions of Barrow No. 7 and the ten adjacent sacrificial burials. Chinese silk items, a Chinese chariot, lacquered artifacts, textiles, felt carpets, jade, gold, silver, bronze and iron objects, funeral dolls and an "animal cemetery" were found. As a result of the excavation we now have extremely important new data about the society and

opens on the Selenga River valley. Mixed conifer and deciduous trees cover lower slopes of the valley while the central portion is open with plowed fields and grassland vegetation. Agriculture has been carried on in the valley since the nineteenth century, and in more recent times mechanized plowing has been used to prepare fields on a fairly large scale. As a result of these activities, many of the stone surface features marking burial areas have been destroyed.

Almost all barrows of the Tsaraam Cemetery are situated in

A single longitudinal and seven perpendicular partitions divided the upper section of the burial pit into nine distinct compartments. Each partition was constructed from wooden logs stacked one upon another, sometimes having a thickness of two to three logs. Four covers of the burial chamber were excavated under the partitions. The uppermost cover of the burial chamber consisted of stone plates and wood; under the logs was a reed stratum. The second cover of the burial chamber was situated in 1.5-1.7 m below the upper one and covered the entire area of the burial pit. This second cover consisted of large stone plates, stacked in close proximity to each other. There was also a thin stratum of reed 0.7 m below the second cover. In both the upper and second covers, there was some difference between the eastern and western parts. The eastern part of the second cover consisted of large plates and boulders approximately 100 x 70 cm in area and with a thickness of 40-50 cm. The stone plates of the western half of the cover were of smaller size, approximately 40 x 50 cm and with a thickness of only 10-15 cm. At each corner of the burial pit on the level of the second cover there were small-sized stones lying on top of the large ones. The third cover was 11 m below the modern surface. This third cover consisted of large stone plates; under the stones there was a stratum of pebble, charcoal, birch cortex and small-sized stones. Bones of domesticated animals were found along northern edge of the third cover, among them skulls of horses, cows, sheep and goats which were placed in line with each other. Near the skulls were tail and leg bones. The fourth cover, located one meter below the third one, consisted of large stone plates, birch cortex, a stratum of pebble mixed with small-sized stones and a stratum of charcoal. This fourth cover was situated directly on the roof of the burial chamber.

Intraburial construction

The burial chamber itself consisted of three chambers: an external framework, an internal framework, and the coffin. The external chamber consisted of seven rows of squared beams; the overall height of the chamber was ca. 170-180 cm. The longitudinal and transverse beams were connected by means of interlocking joints of tongue-and-groove construction cut through the entire width of each beam. There were no additional reinforcing connectors between the beams.

The ceiling of the chamber consisted of boards 20-35 cm wide laid in the east-west direction. The boards were placed flush with one another, without any connectors holding them together or attaching them to the upper beams of the chamber. The ends of the ceiling boards rested on the upper beams of the frame, and in the middle on three transverse beams laid equidistant from one another in a north-south direction. The ceiling beams rested on the upper beams of the chamber (which had notches cut in them to secure the beams) and on columns located along interior of the northern and southern walls of the chamber. In the northern section of the burial structure along the external wall of the external chamber were three columns, and another three columns were parallel to the first along the northern wall of the internal frame. Along the southern wall of the chamber were another three analogous columns. Thus each of the three ceiling beams of the external chamber had five points of support: two on the northern and southern upper beams of the chamber (where the ends of the beams were fitted into special notches), two on the columns on the northern side and one more on the southern columns. The external chamber rested on a floor of beams laid in an east-west direction. The internal frame consisted of five

rows of squared beams each measuring 20 x 20 cm. The construction of the rows of the frame was analogous to the construction of the rows of the external chamber. As in the case of the external chamber, the frame had a covering of transverse boards and a floor similarly constructed of transverse boards. The coffin inside the frame had been to a considerable degree destroyed by the robbery from the south end and by the subsequent collapse of the chamber. One may suppose that its floor and roof consisted of two boards laid lengthwise; the side walls of the coffin were made of wide boards, one to each wall.

Objects Found Inside the Burial Pit.

Fragments of a Chinese mirror and Chinese chariot were found inside the burial pit. The fragments of the mirror were stacked one on top of the other under the logs at the second level of the longitudinal partition in the center of the burial pit, 218 cm below the surface of the grave. Some of the fragments had traces of soot, indicating they probably had been placed in a fire during a funeral rite. The mirror, whose diameter is 13 cm, is of a well-known type with a design including four nipples, quasi-dragons and birds (cf. Tal'ko-Gryntsevich 1999, fig. 3c, p. 50; Chou 2000, cat. no. 20, p. 39). Such mirrors are normally dated from the first century BCE to the first century CE (Miniaev and Sakharovskaia forthcoming).

A Chinese chariot was found between the third and the fourth covers (Miniaev and Sakharovskaia 2006). This chariot had been partly destroyed by two robber's entries, but wheels, a canopy, yokes and some bronze fittings were preserved. The construction of the chariot has very close parallels among chariots of the Han Dynasty period. Like the Han examples the Tsaraam chariot has a canopy

consisting of a wooden framework covered by some organic material, four wooden posts supporting the canopy, a trellised seat and wooden 'elbow-rests.' The body of the chariot and the painting of the wheels are remarkably similar to those of a recently restored chariot from the burial of the famous Han general Huo Qubing (d. 117 BCE) who fought against the Xiongnu. Judging by the number of yoke-heads, the Tsaraam chariot was originally intended for a team of three horses. That explains the use of two-yoke shafts instead of the more typical Han arrangement with a single central shaft whose use implies an even number of horses in the team.. Quite probably the chariot found in Tsaraam was a gift from the Han court to one of the representatives of the Xiongnu elite.

Objects Found in the Burial Chamber

The bulk of the burial goods were located in the corridors between the walls of the chamber, the frame and the coffin.

- In the western external corridor were objects from several sets of harness (iron bits, cheek-pieces, harness buckles) and two burial dolls. Each doll was formed from the skull of a baby, to which had been attached several braids interwoven with beads. The long ends were shaped like lacquered wooden sticks. The grave inventory of the dolls consisted of iron belt buckles and lacquered wooden boxes with cosmetic accessories (a fragment of a Chinese mirror, hair pins and birchbark containers of cosmetic pigments). The boxes were decorated with appliqué of red lacquer on a yellow lacquer background; the birchbark containers were ornamented with drawings of yurts and carts.
- The finds in the eastern external corridor were practically the same as those in the western one. Here there were also sets of bridles (consisting of iron bits, cheek-pieces and buckles) and burial

dolls. One of the dolls was preserved in its entirety: It had been formed in a fashion similar to the dolls in the western corridor and had practically the same burial goods, i.e., lacquered wooden boxes with a mirror and birchbark containers. The other doll apparently had been removed by the robbers; only its feet remained.

- There were practically no finds in the western internal corridor: only two bronze bracelets in the southwestern and southeastern corners of the grave.

- The finds in the eastern internal corridor were confined to its southern part, since the northern part had been destroyed by robbers. These finds included sets of harnesses (iron bits, cheek-plates, bronze harness-plates, silver chest medallions with images of mountain goats), arrowheads, a lacquered wooden staff, silver plaques with depictions of a goat, a lacquered wooden cup and a lacquered wooden quiver with iron arrowheads.

- To a substantial degree the northern external corridor had been destroyed by the entrance of a looter, but fragments of ceramics and lacquered wooden objects were found there. Nothing was found in the southern external corridor, but in that corridor, attached to the interior wall of the external chamber, were remains of a woolen carpet which had been destroyed by the shifting of the beams of the chamber.

- In the southern internal corridor were a flat iron ring and two iron fasteners.

- In the preserved southern section of the tomb were the remains of a covering of some organic material (felt or compressed fur), two iron buckles covered in gold foil and depicting a satyr, two gold necklaces, and a small gold container with the image of a mountain goat.

Conclusion

The scope of the finds so far at the Tsaraam complex is impressive, and suggests that continuing the excavations in the Tsaraam Valley will add substantially to our knowledge of the Xiongnu. Apart from the main tomb of Burial Complex No. 7, the sacrificial burials around it have yielded interesting information which we have discussed elsewhere (Minaev and Sakharovskaia 2002). Of course full analysis of the results of such a large excavation remains to be done. The most urgent task is preservation of the finds. The organic materials — such items as the birchbark containers, lacquerware and cloth — deteriorate rapidly; it is essential that the financial means be obtained for their proper preservation.

About the Authors

The authors are on the staff the Institute for the History of Material Culture, Russian Academy of Sciences (St. Petersburg). **Sergei Miniaev** is a Senior Scientific Fellow there and has been at the Institute since 1968. He wrote his *kandidat* (Ph.D. equivalent) dissertation on Xiongnu bronzes and has compiled a distinguished record of publication on Xiongnu history, art and archaeology. His articles have appeared in journals such as *Das Altertum*, *Asiaticques* and *Orientalions*. Of particular importance is his monograph *Derestuiskie mogil'nik* (The Derestui Cemetery) (St. Petersburg, 1998) in the series *Arkheologicheskie pamiatniki Siunnu* (Archaeological Monuments of the Xiongnu) which he edits.

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Archaeology of the Mongolian Period: A Brief Introduction

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The Mongolian period (13th-14th c. CE) in Inner Asia is well documented in written historical sources. These include narrative histories and documents in Persian, Chinese, Arabic and other languages. For the earliest stages of the history of the Mongol Empire, one of main sources is 'The Secret History of Mongols,' written in the thirteenth century, whose oldest copy is written in transcription by means of Chinese characters. The 'Secret History' has been studied from a variety of viewpoints: historical, linguistic, ethnological, and literary. The Mongols had not had their own written language and borrowed scripts from other cultures, such as the Uighur. However, in 1269 they established the new 'squared' script. While it never replaced Uighur, it was used in Qubilai Khan's time on seals and paizas or passports which guaranteed free passage for diplomats and others through Mongol lands.

In addition to the written sources, archaeological investigation in Mongolia and its surrounding territory has discovered various monuments belonging to the period of the Mongol Empire, including ruins of settlements, human statues, inscriptions on stone and wood, and graves. Ruins of several historically attested settlements from the period of the Mongol Empire have been the subject of scholarly investigation. The earliest one is Aurag Balgas (early thirteenth century). The Aurag Balgas ruin was discovered by Mongolian scholar Kh. Perlee in the

1950s. In 1990-1993 the Mongolian-Japanese 'Gurvan Gol' expedition reexamined the ruin. A Mongolian-Japanese expedition continues archaeological excavation of the Aurag Balgas ruin today.

Karakorum, the former capital city of the Mongol Empire in the thirteenth century, is the best studied archaeological site from the period. Russian scholar N. M. Iadrintsev first discovered its ruins in 1889. The Mongolian-Russian historical and cultural expedition led by Russian archaeologist S. B. Kiselev undertook major excavation of the site in 1948-1950, at which time they explored what they determined was the ruin of Khan Ogedei's palace (Kiselev 1965). In 1976-1980, Mongolian archaeologist N. Ser-Odjav and his team renewed excavation of the city's ruins. Among their unique discoveries was a Muslim cemetery with burials of ordinary people. In 1995 a Mongolian-Japanese expedition undertook an archaeological survey and made a topographic map of the city's ruin. Since 1999, the Mongolian-German joint archaeological expedition has been excavating at Karakorum (*Dschingis Khan* 2005). [They found the kiln used to produce the numerous ceramic dishes and roof tiles of Karakorum and recently have concentrated on the area in the center of the commercial district of the city occupied, it seems, by Chinese artisans and merchants. In exploring further the site Kiselev's expedition had established as the palace, the Mongolian-German team has raised doubts about that

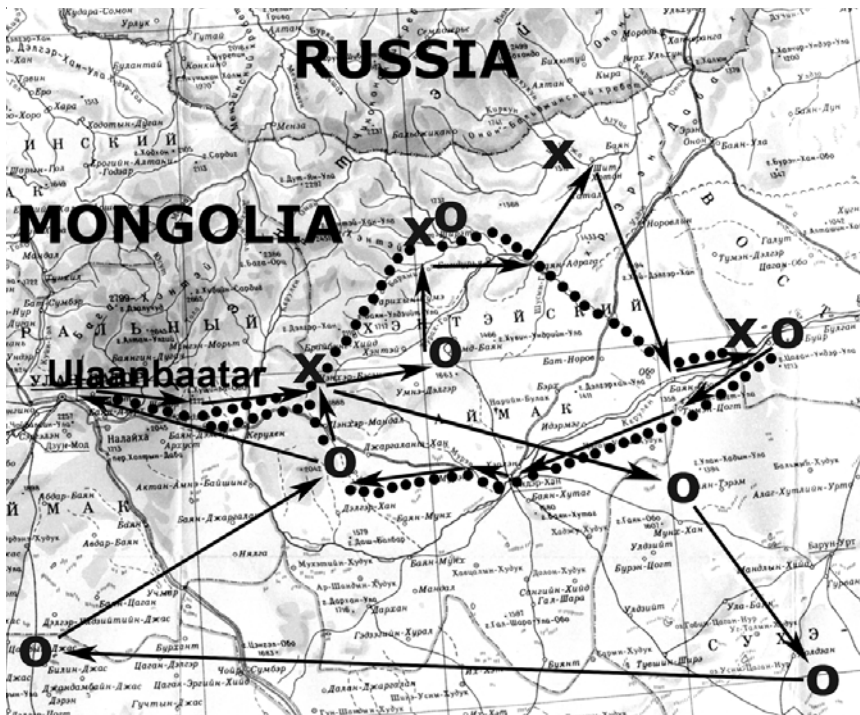


Fig. 1. 'Eastern Mongolia' Research Project fieldwork routes, 2002-2005.
 X Archaeological Expedition 1, Dr. Z. Batsaikhan.
 O — Archaeological Expedition 2, Drs. D. Navaan, M. Erdene.

attribution, arguing that the building may in fact be a Buddhist temple. – Ed.]

Grave monuments are found all over the territory of Mongolia and its surrounding regions. So far around 300 graves have been excavated in Mongolia and

Transbaikalia (Russian Buriatia). These excavations have established that there are generally as few as two to three or as many as five to ten graves at one place. Grave monuments from Mongolia and Transbaikalia have common surface construction. A common finding in Mongolian graves is tibial bones of sheep.

Since 1996 the Department of Anthropology and Archaeology of the National University of Mongolia has carried out archaeological survey and excavation in eastern and central Mongolia. With the support of the Asia Research



Fig. 2. Newly discovered and partly excavated archaeological sites from Xiongnu and Mongolian Periods by the archaeological expeditions from the Department of Anthropology and Archaeology, National University of Mongolia (2002-2005).

1. Khairkhan chuluu site, Munkhkhaan sum, Sukhbaatar aimag (Mongolian Period).
2. Tavan Tolgoi site, Ongon sum, Sukhbaatar aimag (Xiongnu and Mongolian Periods).
3. Gangyn Tsagaan site, Altan Ovoo Site, Dariganga sum, Sukhbaatar aimag (Mongolian Period).
4. Tsvuraa Uul, Bayan Uul, Takhilagt Uul sites, Khulenbuir sum, Dornod aimag (Xiongnu and Mongolian Periods).
- 5, 6, 7. Nugaar, Shuus and Zuun Bayangiin Am, Bugat sites, Khentii aimag (Bronze Age, Xiongnu and Mongolian Periods).
8. Emu site, Selenge aimag (Mongolian Period).

Center at the National University of Mongolia, the Department of Anthropology and Archaeology implemented the project 'Dornod Mongol' (Eastern Mongolia) in 2002-2005. As part of this project, the Department's team of scholars carried out extensive archaeological reconnaissance in the territory of eastern Mongolia and revealed a number of interesting sites, belonging to different periods of Mongolian history, from Palaeolithic to Mediaeval. The study used GPS methods to determine their exact geographical location. Figs. 1 and 2 show the main routes and newly discovered archaeological sites.

In 2002 three previously unknown sites were found and partly excavated in the Tsvuraa mountain area of Khulenbuir sum, Dornod aimag. In each site were some hundred graves from the Mongolian and Xiongnu periods. In 2004 the Department's archaeological team discovered several previously unknown and very interesting sites from the period of the Mongol Empire in Tavan Tolgoi (Ongon sum), Altan Ovoo and Gangyn Tsagan (Dariganga sum and Munkhkhaan sum), Sukhbaatar aimag (Fig. 3, next page). In each site there are more than ten graves. Some of them yielded valuable findings which may be related to Chingis Khan's royal lineage. Here is a brief description of some of those graves (see also the interview with D. Navaan below).

Grave No. 1, Tavan Tolgoi site, Ongon sum, Sukhbaatar aimag. Grave No. 1 contained a skeleton of a headless horse with a saddle whose bow was sheathed in gold. To the right of the horse skeleton lay the remains of a woman

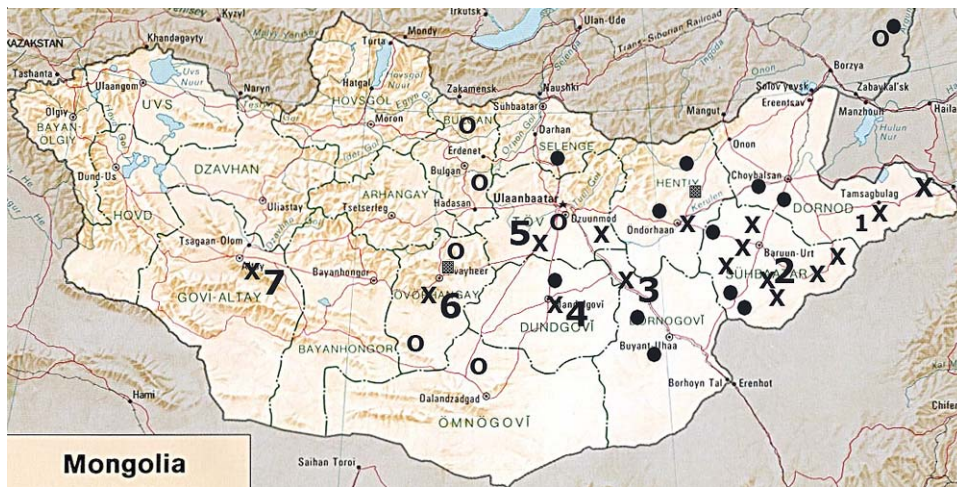


Fig. 3. Archaeological sites from the Mongolian Period.

○ Grave sites excavated by Department's archaeological team.

● Graves excavated by archaeologists.

■ Settlement ruins.

X Stone-man sites: 1. Dornod aimag, 2. Sukhbaatar aimag, 3. Domo Gobi aimag, 4. Dund Gobi aimag, 5. Tov aimag, 6. Uberkhangai aimag, 7. Gobi Altai aimag.

oriented toward the northwest. The woman's skeleton was very well preserved. She wore a two golden rings on the fingers of her left hand; on the inner surface of each ring was inscribed an image of a falcon. According to C14 analysis, Grave No. 1 is dated 1190-1230 CE or the period of Great Mongol Empire.

Grave No. 2 revealed a horseman buried not far from the woman's grave. He was holding in his right hand silk material in which was wrapped a large pearl resting upon a base that was shaped like a flower. This large pearl set onto a flower-shaped base is called a *jins* in Mongolian and was used as a marker of status.

Grave TT-2005 B-4. Geographical position: N – 45°05'55.7, E – 112° 42'47.1; elevation 1089 m above sea level. The grave is located on the southern slope of the Dund Ovoot hill, 500 m. to the west of the hilltop.

The following artifacts were found in the grave: a sheep's shoulder blade, ribs, ankle and tibia bone, all lay near a human skull; and a horse head with harness lay to the left of the human remains. Sheep vertebrae and a shin bone and a horse hoof

lay to the right of the human remains. A stirrup and a birch-bark arrow quiver with four arrowheads inside were unearthed at the human's legs. The archaeological findings and other mortuary materials from the grave, in particular the sheep tibial and ankle bones, show that the grave belongs to the Mongolian period. Furthermore, some characteristics of palaeoanthropological findings from the grave, such as trauma of the left clavicle, outer and inner constructions of the grave, and associated archaeological materials suggest that the grave belongs to an individual of lower social status, e.g. a common warrior.

Grave TT-2005 B-5. Geographical position: N – 45° 05'59.0, E – 112° 43'10.9; elevation 1096 m above sea level. The grave is located on the southern slope of Dund Ovoot hill of Tavan Tolgoi at the upper left periphery of the group of graves. The surface structure is a ring-shaped stone construction 8.5 m. in diameter, not mounded on the surface.

A horse tooth and other bones were found at a depth of 50 cm. At a depth of 1.10 m, there was a

harnessed horse head at the left hind corner of the burial pit. The harness had knob-like decorations at the knots, and leather pieces of harness were found elsewhere. At 1.30 m, the excavation unearthed a horse on whose saddle was a gold bow-plate with a dragon image.

To the right of the horse skeleton, separated by a large stone, lay human remains in a wooden coffin. The human skeleton, of a supine female, retained its anatomical structure, but in a very poor state of preservation. Further excavation revealed

various gold and silver goods. She wore a gold ring on a finger of her left hand and a golden crown on her head. A pair of gold earrings was found near the skull. A small golden container had a black powder inside, and 'ochir' and other decorations beautifully crafted of gold were found there too. Other findings in the grave included a silver pot, a bowl containing grain, a human image made from jade and a bronze mirror wrapped in cloth. The buried woman wore a fine silk outer garment and leather boots with sharp tips.

Although the stone structure of the grave on the surface appears to date to the Xiongnu period, the internal structure and the objects recovered during excavation date it to the twelfth or thirteenth centuries CE. Moreover, the pelvic structure of the human remains and the associated gold objects suggest that the burial belongs to a woman of high social status.

Grave TT-2005 B-6. Geographical position: N – 45°05'58.9, E – 112° 43'10.7; elevation 1103 m above sea level. The grave is located on the southern slope of Dund Ovoot hill of Tavan Tolgoi, below and to the left of grave TT-

2005 B-5. The surface structure is a ring-shaped stone construction 6 m in diameter, not mounded on the surface.

At a depth of 70 cm, ribs and foot bones of animals, bone knobs with metal centers (their purpose is unclear), and pieces of birch bark were found. At 1.1 m were the remains of a horse with a leather saddle. At 1.80 m, there was wooden coffin, whose inner surface was painted with red and white decoration and covered in some places with birch bark. Archaeological findings from the grave include a golden ring, cloth (possibly the lining of the coffin), a 3-petal golden 'ochir,' a jade belt decoration inlaid with square turquoise, and a 7-petal decoration made of bone. Palaeoanthropological materials were uncovered without any anatomical structure and consisted of skull fragments, a clavicle, ribs, vertebrae, a radius, a fibula, feet bones and phalanxes. Bone structure and relief of paleoanthropological materials show that the human remains are from a male.

Archaeological findings from the grave TT-2005 B-6, among them the fully-equipped horse, suggest that the grave dates to the Mongolian period and belongs to a male aristocrat. The grave appears to have been pillaged in antiquity.

Grave TT-2005 B-7. Geographical position: N – 45°05'58.7, E – 112° 43'11.1; elevation 1096 m above sea level. The grave is located on the southern slope of Dund Ovoot hill of Tavan Tolgoi, down from the grave TT-2005 B-5. The surface structure is a ring-shaped stone construction, not mounded on the surface.

Excavation was undertaken on an area of 3 x 2.2 m. At 85 cm, the burial pit was identified and further excavation then conducted over an area of 2.6 x 1.7 m. At a depth of 1.5 to 1.7 m were found horse vertebrae, a hoof, saddle

trim made from bone, birch bark, copper and iron goods, buttons and a belt buckle.

At 2.10 m, the upper lid of a wooden coffin oriented north-south was revealed. The well-preserved coffin had been placed in a stone-sided pit and covered by large flat stones. One of the boards of the coffin lid was broken. The coffin had iron girdles at the head and foot ends and appeared to have had a copper one in the middle. The coffin interior was lined with silky material with small white ornaments. The measurements of the coffin were: length 2.12 m; upper width at the head 60 cm, bottom 55 cm; upper width at the foot 54 cm, bottom 42 cm; height at the head 56 cm, at the foot 50 cm; thickness of lid board 3 cm, side wall 6 cm, foot wall 8 cm.

The human remains in the grave were completely disrupted, and the skull with mandible was found out of the coffin on the north edge of its lid, facing to the east. Other bones, such as clavicle, radius and ulna were found out of the coffin at a depth of 2 m. Nonetheless, lower limb bones, scapula, ribs, and sacral bone were recovered in the coffin. Since they were out of anatomical order, it was not possible to ascertain the position of the body in the grave. However, by the coffin shape, it could be supposed that the interred individual was placed supine and oriented to the north. The grave also has unique characteristics. A golden earring was discovered under the skull of the human remains, which appear to be those of a man.

From the archaeological findings, including the wooden coffin and grave structure, we can assume that the grave dates to the Mongolian period and belongs to an individual of high social status. The single earring found in the grave may have been connected to rituals, and shows that medieval Mongolian nobles used to wear a single earring in their left ear.

The graves excavated in 2004-2005 at the Tavan Tolgoi site all had a horse associated with the interred individual and are of great importance to the archaeology of the Mongolian period. Assuming that the findings are evidence that the Tavan Tolgoi site is connected with the history of Great Mongol Empire, we can conclude that graves TT-2004 B-1, TT-2004-B-2, TT-2005 B-5, TT-2005 B-6, TT-2005 B-7 were burials of nobles who had a close relationship to Chingis Khan's Golden Lineage. The territory of Ongon sum was the land of the Onggirat tribe in the 12th-13th centuries, a tribe which had an old bond with Chingis Khan's Golden Lineage. Thus we might conclude that the Tavan Tolgoi area was the burial ground of the Onggirat tribe.

The conclusion regarding the royal connections of the graves is supported by some of the key archaeological finds: the *jins* marker in the man's grave, the woman's rings with a falcon seal inside, the gold saddle bow-plate, and the other jewelry, all of which undoubtedly belonged to a royal family during the Great Mongolian Empire. Of particular significance were the gold rings with the engraved image of a falcon, which signifies that the person to whom the rings belonged must be of great importance. The falcon is mentioned in the thirteenth-century 'Secret History of Mongols' and provides a link to Chingis Khan's lineage. In its 63rd section Onggirat Dei Sechen speaks to Yisügei Baatar, Temüjin's father, when he came to betrothe his 9 year-old-son to Börte, Dei Sechen's daughter: '... This night I saw the dream that the white falcon came to me holding the sun and the moon and left them on my hand Dear Yisügei, your coming with your son explains my dream. The totem of you, Kiyat people, has come...' (Chengdü-yin Damdinsüren 1947). Temüjin was described in this story as the Falcon, a totem of the Kiyat Borjigin tribe.

About the Authors

The authors are all members of the Department of Anthropology and Archaeology of the National University of Mongolia. Prof. **Navaan Dorjpagma** is the department's senior professor. He received his initial training in Archaeology at Moscow State University and for many decades worked in the Mongolian Academy of Sciences. His specialty is Bronze Age archaeology of Eastern Mongolia; he has published three monographs and over 200 scholarly articles. Prof. **Tumen Dashvereg** likewise received her degrees from Russian institutions and since 1995 has chaired her department. She has held numerous visiting appointments at distinguished foreign universities and recently completed a lecture tour in the United States and Canada, sponsored by the Silkroad Foundation. Her publications in her specialization of paleoanthropology include three books and some 90 articles. Her e-mail is <tumen@mun.edu.mn>. She, Prof. Navaan, and the third co-author, Prof. **M. Erdene** of her department, presented a paper in April 2006 at the 19th Annual C14 Conference (held at Oxford) on the carbon 14 dating of the Tavan Tolgoi site.

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Tombs of Chingisids Are Still Being Found...

An Interview with Senior Archaeologist, Professor Dorjpagma Navaan

Interviewed by Shirchin Baatar on August 3, 2005.

We are meeting again after exactly one year. I heard that you made number of discoveries during the most recent season. Can you tell us about your new discoveries as well as older ones?

Last year, during the expedition organized by the Department of Anthropology and Archaeology of the National University of Mongolia, we found some interesting discoveries related to the thirteenth century. We informed the public and planned to continue work in 2005. We excavated three burials in the hope of finding some more interesting and valuable items. Our hopes were met.



Photo © Daniel C. Waugh 2005

Fig. 1. Prof. Navaan discussing his 2005 excavations. Looking on is Prof. Al Dien (Stanford), who lectured for the Silkroad Foundation's summer institute in Mongolia.

Thank you for the good news. First you found a burial of a female aristocrat. Exactly what kinds of things were with her? What was the position of the body?

First we went to a place named Tavan Tolgoi in Ongon sum, Sukhbaatar aimag (Fig. 1, next page). When we were exploring there, I found some graves on the slope of Dund Ovoot mountain. Because of the external structure of the burials I assumed that they



Fig. 2. Map showing location of Tavan Tolgoi and Sharga Mountain.

could be from the Xiongnu period. But there was doubt. The Xiongnu usually did not bury their people on higher mountain slopes, which is where those burials were located. In order to find out the reason, we decided to excavate the first grave. When we excavated the northeast grave we found the remains of a woman with a horse. There had not been any looting. It was a great find. There were gold rings on both hands, and inside of the rings were hidden images of white falcons. That image gave us direct evidence that this burial is related to Chingis Khan's family. Therefore we decided to continue research and excavation in this area. Now we have a long period of research work ahead.

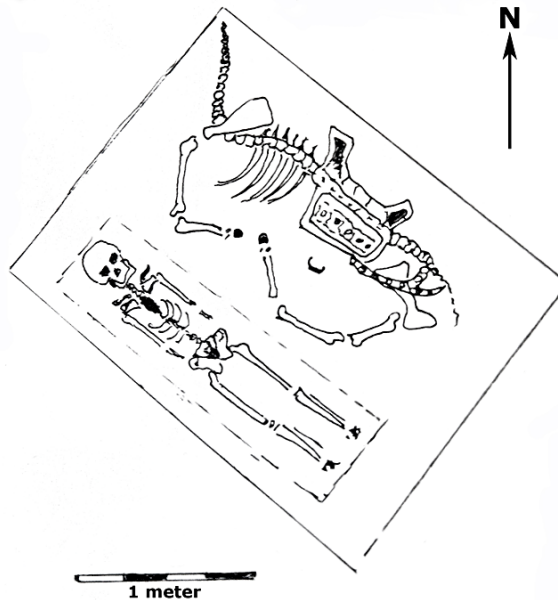
Were there other interesting finds besides those two rings with the white falcons? How about saddles, bridles, clothes and other items? Were there other important anthropological signs?

The woman was there with the horse, but the horse was without a head (Fig. 3). Mongols have a tradition of placing horse heads on high mountains as offerings. The horse had a saddle, and the upper side of the saddle, both front and back, was covered with well-designed and carefully crafted gold. The saddle-cloth, girth and other parts

of the saddle were in exactly their original position. All the material of the saddle had very skillfully-executed patterns and needlework. The saddle also had iron stirrups. The woman not only had the gold rings but also a bronze mirror, silver bracelets on each arm and a gold necklace with an expensive turquoise inlay. All of them were crafted with the most wonderful designs.

This means that during that period Mongols made bracelets of silver. How are you preserving those finds? Did you trace the designs?

We are keeping all rare materials under strong security at our university. We continue the restoration of those items, but it



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Fig. 3. Drawing of burial in Tomb No. 1 (?), Tavan Tolgoi.

is not an easy task. We need more time. Part of the careful study of the saddle components is to make accurate drawings. Once restored and carefully studied, all the items will appear in a book.

What will be the title of your book? Will it be published soon?

Because those discoveries were made in Tavan Tolgoi of Ongon sum, we will name the book *Ongon Tavan Tolgoi*. I will include all materials related to the thirteenth century in this book and publish it in Mongolian and English. The book will be published in 2006 before the 800th anniversary of the founding of Chingis Khan's Mongolian empire.

I heard that you also found a noble's hat with a gold jins (a small, round item worn on a top of a hat to indicate rank). Was it found in the first excavation?

The second burial was at the foot of the woman's burial. First we thought that it would be the burial of her son or someone related to her. The excavation revealed that it had been looted a long time ago. We are lucky because the looter did not also loot the woman's grave. Examination of the skeleton's anatomy showed that the second grave contained the body of a man, who was buried with his horse. The horse still had its head. Therefore the man probably was a very important aristocrat. The most important discovery from that tomb was a gold artifact with pearl inlay, placed on a lotus. It was wrapped in silk and held in the left hand of the man, which was under his back. It could be a *jins* or a religious or decorative item. I think that the important thing is that it is related to the period when Buddhism first spread to Mongolia. The fact that the man held this artifact tightly and it was hidden under his back is very interesting. We are continuing to study this.

That man's horse was without any saddle. Is it because the tomb was looted? How do you know the tomb was looted?



Photos © (left) Department of Anthropology and Archaeology, National University of Mongolia; (right) Daniel C. Waugh 2005

Fig. 4. Gold hat decorations and earrings from Tavan Tolgoi Tomb No. 5.

It is easy to recognize when other people have disturbed an archaeological monument. The skeleton was moved a little. But I think the horse originally was without a saddle. There should have been other valuable artifacts in that tomb. But since there were none, we think it was looted. Since the *jins*-like artifact was under the man's back, looters probably did not notice it. Another interesting discovery in the tomb was a stirrup.

Last year, winter arrived after you had dug two tombs. Did you dig other tombs this year? How did you find the other important discoveries?

There were other tombs located near the two we excavated last year. Therefore we had an ambitious goal for this year. We chose three tombs and excavated them. We excavated them in a different order compared to last year's excavation and numbered them 5, 6 and 7. A lot of expensive and valuable artifacts were found in those three tombs. In the fifth tomb there was a woman younger than 20. On her body and near her head there were a number of gold items. Because she was a young woman she was dressed in a fancy manner. For

example there was a gold crown, a jade belt-fastener with gold inlay and a lapis lazuli plate, a gold ring, a gold hair-clip with various patterns, a necklace with a round gold box and a gold thunderbolt (Figs. 4, 5, 6). The



Photo © Daniel C. Waugh 2005

Fig. 5. Gilded pectoral (crown?), Tavan Tolgoi Tomb No. 5.

most interesting discovery was the gold thunderbolt that she held in her hand. The thunderbolt is



Photo © Daniel C. Waugh 2005

Fig. 6. Gold thunderbolt (vajra) found in Tavan Tolgoi Tomb No. 5.

related to Buddhism. We should therefore consider that at this time the Mongols already had adopted Buddhism. In last year's excavation we also found a bone thunderbolt with carving on it.

Was the young woman alone in the tomb? Did you find a horse or saddle with her?

Probably that girl was a beloved daughter of an important aristocrat. A horse was with her, and there was a beautifully designed saddle sheathed in gold and with dragon-shaped ornaments (Fig. 7, next page). We have started to restore that magnificent creation. It has a great many well-crafted carvings. Ethnographically it is an important monument of oriental culture. The dragon ornamentation is very artistic. The dragon is the sky animal. A person who used a gold saddle with a sky animal had to be a high nobleman. In Mongolian archaeological history there have never been such discoveries before, and they prove that we have a proud culture and heritage.

I saw pictures of Mongolian rulers' saddles. There are two kinds of



Photos © Department of Anthropology and Archaeology, National University of Mongolia.

Fig. 7. Gold foil saddle decoration with dragon design. Tavan Tolgoi Tomb No. 5.

them. But, this one is not comparable to either of them. This saddle is wonderful. Can you talk about Tombs Nos. 6 and 7?

We found a gold earring from Tomb No. 6. That man's tomb looks as though it had been disturbed by someone. The coffin's design is very good. It seems that the coffin's wood is not from native trees but could have been brought from the south. The inside layer of the coffin was some kind of high quality silky material. We found a big piece from that material and now are working to restore it. There was no horse in that tomb. The anthropological material of Tomb No. 7 proved that it was a man. We found in that tomb some gold objects with figurative designs, possibly used as clothing decorations. This tomb also had been robbed by someone.

So, there were five tombs, two containing women and three of them men. All the men's tombs were looted but the women's ones were not. That makes me think that someone who knew about the tombs robbed them soon after the burials.

We also think so. Usually many expensive items were placed with noblemen. Those robbers would have known that.

Are there any other tombs? Will you continue your research in this area?

There are many other tombs in Dund Ovoot. They are close to

each other. Also there are some other, quite different, tombs that we have excavated 200-300 meters away. The tombs that contained the gold artifacts were tombs of aristocrats, but the latter ones were for ordinary people. Some of them contained horses, but there were no saddles. They might be warriors' tombs. Some artifacts could prove this point. In last year's excavation we found a bronze earring from a poor woman's tomb. So these were different kinds of peoples, and we found different artifacts. As many as five or six other big tombs that could contain a lot of gold items existed in the area where we first excavated. We will study those tombs in 2006. There are two or three hills about 1 km beyond Dund Ovoot. One hill has about ten, another one has seven or eight tombs. The place is called Tavan Tolgoi (Five Hills) because there are several hills side by side. It contains monuments from the thirteenth century and also even from the Hun period. We will apply to the Mongolian Government to protect this place.

Now people know about Tavan Tolgoi. Will people go there by themselves and rob those tombs...?

Ongon sum of Sukhbaatar aimag is the closest sum to the border. The place that we conducted our excavation is in only 10 km away from the border. There are three army units near this place; so the protection is good. The border guards always watch this place. It

is clear what cars are coming and who is visiting. The local people also act as guards. These people have sharp eyes and they know who is coming, where they stay, whether they come with horse or car, etc. When even ordinary citizens are so watchful, then any casual robber can't get to this place.

What good people. I am proud of them. I have another question. If this place is only 10 km from the border, then that means that perhaps some other tombs could be on the other side of the border. Are you interested in this, and have you crossed to the other side?

I have not. Because it is a border, there is no chance to cross it. We can't go there, and other people can't come from that side. Therefore we have little information about the other side of the border. Usually there is not much information about archaeological monuments in China. It seems that they are hiding their discoveries. Therefore I can't tell whether they either have or do not have similar monuments. When we look from Tavan Tolgoi to the south, there is no mountain, it is all steppe — as we say in Mongolian, a mirror. If there are no mountains, rocks or stones, people can't find materials for burials. Stones are the most important material for funerals; therefore I think there are not many tombs. To the west and east of Tavan Tolgoi there is a series of hills with lots of rocks. That area is very good place for burials. Also

there is a marble portrait of a king and a queen in Tavan Tolgoi. Those tombs could be related to this portrait.

Could you tell us more about this marble stone portrait? When was it done? Have scholars studied it?

The stone portrait of a king and a queen from Tavan Tolgoi were published in a book a long time ago. During the 1920s, the Russian scholar, V. A. Kazakevich, studied it. The Mongolian scholar, Bayaraa, also thoroughly studied it. He wrote a book called *A Stone Portrait of Eastern Mongolia* and defended his Ph.D. on this topic. In this book Dr. Bayaraa wrote that the 'King and Queen from Eastern Mongolia are from the thirteenth century; these were Chingis Khan's famous kings.'

You found thirteenth-century artifacts in the tombs near this stone portrait. That means that you proved Dr. Bayaraa's thesis.

You are saying that I proved it. However, I can't claim that, because we did not prove that this portrait is related to those tombs. There are two more tombs alongside the stone portrait. After excavating those tombs we can prove whether the Tavan Tolgoi artifacts are related to the portrait or not.

Why haven't you excavated these two tombs yet?

We are planning to excavate them in 2006. After this excavation we can tell whether the tombs and the portrait are from same period.

How big are these portraits? Are they tombstones or carved on stones? Are they different from Turkish era tombstones?

The eastern Mongolian stone portrait is a tombstone that has a picture of a sitting man — his whole face and clothes are carved in the stone. It is broken, and the head is cut from the body. It is

totally different from Turkic tombstones. Dr. Bayaraa explained that these stones belong to the Mongolian period.

So many gold artifacts were found from this area. Is there a high possibility that those tombs are related to the stone portraits?

It could be. The tombs beside the king and the queen had been dug before. Even though they have been looted we hope there will be some discoveries. Those discoveries will tell us many things.

Were there any books? If there were any sutras found, that could be very interesting.

No. We did not find any book-related items. But all of these monuments are 'books' themselves.

In the young woman's burial you found some red-brownish powder. This woman seems to be a beloved princess of an important khan. Could this powder help establish her genealogy?

Maybe this was a treasured medicine. We haven't determined the chemical ingredients of this powder.

You told me that you found a woman's shoe. In which tomb did you find it? In the rich woman's tomb or a poorer person's tomb?

This year's excavation gave us very interesting information. We found some more of the same type of tombs in Asga sum, Sukhbaatar aimag, which is located 200 km to the north of Tavan Tolgoi. The place name is Sharga Mountain. The external structure of the tombs is the same as in the Tavan Tolgoi tombs. We found similar gold items there. We also found a woman's shoe which has a beautiful leather cover with patterns. We conserving it and working to restore it.

How many tombs did you excavate in Sharga Mountain?

We excavated three tombs and made various discoveries. Some of them are a little different from the Tavan Tolgoi discoveries. We found there a sheep marrowbone. Mongols use marrows for specially esteemed occasions. During the lunar new year's celebrations, we put out marrow for offerings. This discovery will tell us much about Mongolian customs.

Do the gold artifacts from Sharga Mountain have different designs from the Tavan Tolgoi ones?

There is no big difference. We found a gold decoration from Sharga Mountain which was very similar to the hat decoration found at Tavan Tolgoi. That hat decoration was a little different from previous gold crowns. It has a heart-shaped turquoise inlay on all four sides. It has many different patterns. Even though these artifacts were found 200 km from each other, they are very similar. One could even say that the same smith made them. So, those items surely belong to same period.

We have been looking for Chingisid tombs in the Khentii Mountain range for a long time, but did we find them in Sukhbaatar aimag?

These tombs are definitely related to the Chingisids. Or very close to Chingis Khan or some later descendants. Perhaps they are not the direct descendants of Chingis Khan. Anyway, they were people who worshiped and honored Chingis Khan's white falcon.

When the Mongolian Great Khan period ended, most khans lived behind the Great Wall. And many of them lived in today's Sukhbaatar and Dornod aimags. Therefore these tombs could be related to the southern Yuan Dynasty. The most important proof of this theory is that these artifacts are related to the spread of Hinayana Buddhism. These golden artifacts could be related to Chingis Khan and his descendants. Therefore I think these tombs

belong to the later period of the Great Mongol Empire. What do you think?

I agree with you 100 percent. Dr. Bayaraa studied the tombstones in eastern Mongolia and hypothesized that they are from Qubilai's period. This might be true. Many khans were influenced by the culture to the east and brought silk and other materials from there. These monuments tell us about the cultural relations that developed at this time. So, those could be the tombs of lesser khans, perhaps Qubilai's descendants.

Because I am interested in Mongolian anthropology, I have a good collection of materials on Mongolian anthropology and traditional culture. I search for materials that are published abroad about Mongolian culture. I have seen many artifacts with different designs, shapes and patterns. The monuments that you found are more skilfully decorated than they are. I think your discoveries can change Mongolian anthropology and archaeology. The young woman's saddle is simply wonderful and incomparable. I wish you success in your studies. Your book will surprise the whole world. Thank you very much.

Translated by M. Saruul-Erdene from the original published in the *Zamdaan Journal* 23 (2005).

News about Collections

The August Hermann Francke and Hans Körber Collection: Archaeological Finds from Khotan in the Munich State Museum of Ethnography

Ulf Jäger

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Unknown to a larger public there is a significant collection of archaeological finds from Khotan in the State Museum of Ethnography in Munich, Germany. It is the third largest collection of archaeological objects in Germany from Eastern Central Asia (Xinjiang Autonomous Region, China). The largest is the Turfan Collection of the Königlich-Preussische Turfan-Expeditionen (1902 –1914), brought together by the German ethnographers and archaeologists Albert Grünwedel and Albert von LeCoq and now housed in the Museum für Indische Kunst in Berlin. Grünwedel and von LeCoq mainly worked at sites on the northern route of the Silk Roads between Kumtura, Kucha and Turfan itself. The second largest collection of such finds is the Emil Trinkler Collection in the Übersee-Museum, Bremen, collected on the southern Silk Road at Khotan in 1928 by the German geographer Emil Trinkler. Unlike the Francke-Körber Collection, the other two have widely been studied and published (see References).

The Protestant missionary and tibetologist August Hermann Francke (1870–1930) and the sinologist Hans Körber assembled their collection in 1914, shortly before the outbreak of World War I. Both were sent out by the German indologist Lucian Scherman, then the leading Director of the Königlich Bayerisches Museum für Ethnographie in Munich. The vicissitudes of the War and the subsequent fate of all three men help to explain why the collection

was never properly catalogued and published.

Dr. Francke was a well-known tibetologist who had previously worked for the Archaeological Survey of India in Ladakh and published two volumes on his research there. He also contributed transcriptions and translations of Tibetan manuscripts to Sir Marc Aurel Stein's *Ancient Khotan* of 1907. Probably this was the reason Lucian Scherman chose him to collect archaeological objects in the



Fig. 1. Sherd of a dark-green hard-glazed jar showing the head of a camel. Yotkan, near Khotan, 6th-7th c. CE. Cat. no. FK 249. Photo by S. Autrum-Mulzer, Negative No. 18213, copyright © Staatliches Museum für Völkerkunde, München, 2006.



Fig. 2. Head of a demon. Stucco. Khotan oasis, 3rd-4th c. CE. Cat. No. FK 213. Photo by S. Autrum-Mulzer, Negative No. 19094, copyright © Staatliches Museum für Völkerkunde, München, 2006.

Khotan oasis for the Munich Museum of Ethnography. It seems likely that the Munich Khotan Collection was to be a Bavarian answer to the Prussian Turfan Collections at Berlin. The question is worth further study.

Francke and Körber collected all their finds in the antique markets of Khotan and from Chinese officials there; only a very few items were excavated by them personally. So the provenance of every piece in their collections for the most part can be established only on the basis of the information provided by the sellers or the Chinese officials. Since the collection of the material predated World War I by only two months, the two scholars temporarily stored their collections at the Swedish missionary residence in Kashgar (Kashi). The intention was to ship their carefully packed finds home via the railways in Russian Turkestan.

The two scholars attempted themselves to return to Germany via the normal caravan route south, across the Karakorum Pass

to Ladakh and British India. However, the British arrested them as citizens of Imperial Germany and brought them as POWs to Ahmednagar (Maharashtra State). As soon as they had reached Ahmednagar, both men engaged in correspondence with Lucian Scherman in Munich, in particular with regard to the issue of how to obtain their Khotanese collection from Kashgar and send it home. The correspondence with Scherman fills two large files in the archives of the State Museum of Ethnography in Munich. It took until 1928 with the help of official German diplomacy for the collection to arrive in Munich, some 14 years after it had first been obtained!

Francke was able to leave the British Indian POW camp at Ahmednagar and return to Germany in late 1917, but then was sent off to the front in the Balkans where he was again captured and put this time in a Serbian POW camp. He never would regain his health after the War. He was appointed Professor in Tibetology at the University of Berlin in 1925, and died there unexpectedly on February 16th 1930, at age 59.

Soon after the Nazi takeover of the German government, in 1933 Lucian Scherman had to leave his job as the leading Director of the State Museum of Ethnography in Munich because he was of Jewish descent. He left Germany for Boston (USA) late in 1939 and died there in 1947.

The Francke-Körber Collection has been housed since its acquisition in the Department of Central and East Asian Art at the State Museum of Ethnography, Munich. In the beginning of the 1980s the well-known German Iranist Gerd Gropp from Hamburg University rediscovered the material. In 1974 Dr. Gropp had published the Trinkler Collection in the Übersee-Museum, Bremen. He began to catalogue the Munich

collection but was prevented from completing the work due to his teaching and his research in Iranian studies. Although by then he had retired, in 2003 Dr. Gropp proposed that I should take on the cataloguing project, for which my graduate training provided appropriate background. This suggestion, to which I readily agreed, was endorsed by the leading Director of the museum, Dr. Claudius C. Müller and the Curator of its Department of Central and East Asian Art, Dr. Bruno J. Richtsfeld.

The project should result eventually in a monograph on the collection's history, to be published in the series *Beihefte des Staatlichen Museums für Völkerkunde München*. To date approximately 85% of the planned chapter on the history of the 1914 expedition to Khotan is complete. Some additional information is needed, especially on Dr. Francke's contacts with Profs. Grünwedel and von LeCoq and with Sir Marc Aurel



Fig. 3. Standing Buddha. Oasis of Hanguya near Khotan, late 4th-6th c. CE. Stucco. Cat. No. FK 547. Photo by S. Autrum-Mulzer, Negative No. 18212, copyright © Staatliches Museum für Völkerkunde, München, 2006.

Stein, which may have involved planning for another expedition to Khotan.

In December 2005 I was able to organize the Francke-Körber Collection according to modern principles. The ca. 2000 archaeological finds have been arranged in more than a dozen categories, which include: fine Yotkan-ceramics, subdivided into smaller groups such as ornamented sherds, handles in certain animal-forms, the well-known monkeys and camels, etc. (Fig. 1); household ceramics; imported ceramics; china; lamps and incense-burners; spinning-weights; geological specimens of ores and stones for jewelry; carved statuettes of semi-precious stones and jade (nephrit); seals and gems in stone and metal; objects made of marine shells and mother-of-pearl; playing-cubes; buddhist terracottas; buddhist stuccos (Figs. 2, 3); and coins (Kushan, Sino-Kharoshthi, *wushu* coins, other Chinese coins from the Han to Ming Dynasties, early islamic coins).

While comparative analysis has only begun, the first results of it are interesting. For example, there are links between the ceramics of Khotan in the collection and their analogues in locations such as Bactria, the buddhist complex of Kara Tepe (Uzbekistan) and even early medieval Sogdia. Some pieces, such as certain miniature vessels made of terracotta and metal, are similar to ones found in the Northern Caucasus, for example in the tombs of Moshchevaia Balka. Certain of the bronze objects which are possibly belt ornaments can be found from the Ordos to Western Turkestan. This can be explained by the influence of nomadic invaders in Khotan in pre-islamic times. Such comparative analysis will be extended to include new finds from Xinjiang.

The manuscripts of the Francke-Körber Collection fill two large files in the museum's archive

and include buddhist texts as well as other private and official documents, in Sanskrit, Chinese and Tibetan. They will be sent to experts of the Berlin-Brandenburgische Akademie der Wissenschaften in Berlin for modern philological and historical analysis.

Completion of this cataloguing and the publication project is contingent on the author's receiving funding, since the work currently is incidental to his employment in a non-academic field. He has applied to the Deutsche Forschungsgemeinschaft (DFG) in Bonn; any other support which may be forthcoming will advance international scholarship on the ancient history and culture of the Silk Roads.

About the Author

Ulf Jäger was educated at the Universities of Münster/Westfalen and at Freiburg/Breisgau, Germany. He received his Ph D. in 2003 at Münster University in Archaeology and Ancient History. His dissertation, "Horsemen, Mounted Warriors, and Horse Nomads between the Rhineland and Korea: On the Late Antique Riding Culture between East and West in the 4th-8th Centuries CE. A Contribution to the Synthesis of Ancient History and Archaeology," has been published in German in the series *Beiträge zur Ur- und Frühgeschichte Mitteleuropas* (Weissbach; Langenweissbach: Beier & Beran, 2006). His specialization is the archaeology and cultural history of pre-islamic Central Asia. He may be contacted either by e-mail <jaeger-u@versanet.de> or at his home-address: Dr.phil.des Ulf Jäger, Bergstrasse 8, D-48599 Gronau-Epe/Westfalen, Germany.

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Digital Collections: New Additions to Silk Road Seattle

Thanks to the support of the Silkroad Foundation, the work of Lance Jenott and valuable contributions of material by others, some significant new additions have been made to the collection of educational resources available through the Internet on the website Silk Road Seattle. Those already familiar with the site might note that it has a new URL or electronic address: <<http://depts.washington.edu/silkroad>>. Should you still have the old address bookmarked in your browser, it will take you automatically to the new one. Here are highlights of the new material, which can also be readily accessed from the New Additions button on our opening page:

- A new section on Silk Road Geography with an introductory essay and a set of image galleries featuring landscapes of Eurasia.
- Under "Museum Collections>Featured Museums," the addition of hundreds of new images. Most of the images have captions which include where possible references to published catalogues and further information. The additions are for the following museums:

State Hermitage Museum, St. Petersburg, Russia

* Over 975 images, a good many being recent color photographs, among them: an excellent selection of the early Inner Asian nomad materials, especially from the Pazyryk burials, an extensive collection of Sasanian silver, Islamic ceramics and much more.

* We have digitized and posted the largest part of the images in Smirnov's magnificent 1909 portfolio, *Eastern Silver (Vostochnoe srebro)*.

* images and a pdf file of the complete English text from Boris Marshak's *Sogdian Silver (Sogdiiskoe srebro)* (1971).

* images and a pdf file of the complete text of Camilla Trever, *Excavations in Northern Mongolia (1924-1925)* (1932) on the first Noin Ula excavations.

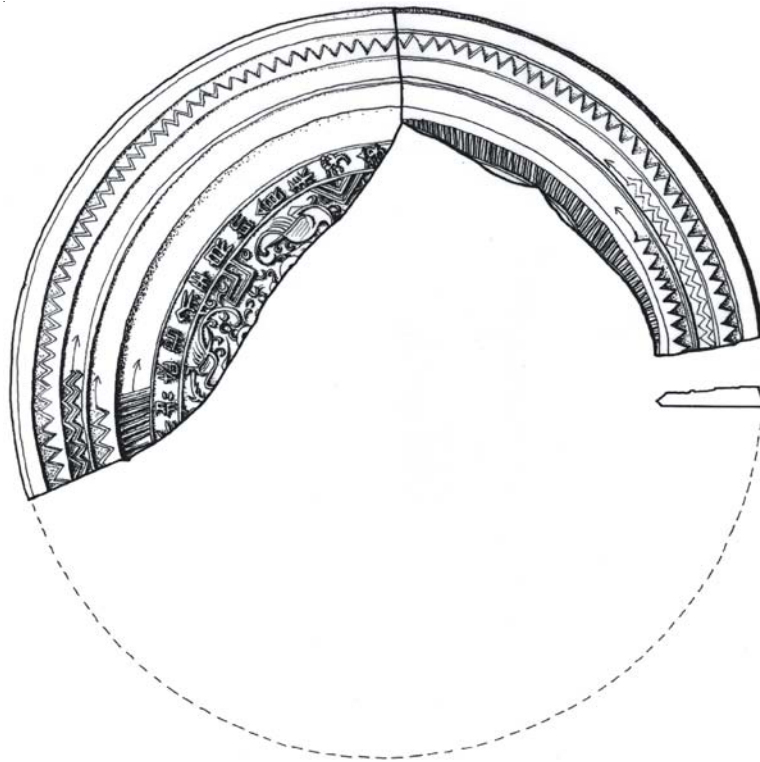
State Historical Museum, Moscow. Photographs include many of early Central Asian material and of Golden Horde (Mongol) material.

Extensive additions to our previously posted collection of images from the *National Museum of Mongolian History*, Ulaanbaatar. The selection includes much Xiongnu material, quite a few images of the recently-excavated Bilge Qaghan treasure, and a substantial collection from the period of the Mongol Empire.

Chojjin Lama Museum, Ulaanbaatar. Images of the outstanding collection of Mongolian Buddhist ritual objects and art.

- In our section on Silk Road Cities, a number of new, illustrated web essays and image sets, most of them contributed by Profs. Frank Harold and Florian Schwarz:
 - The Alborz and the Assassin Castles, Iran
 - Almaliq, Xinjiang
 - Balkh and Mazar-e-Sharif, Afghanistan
 - Bam, Iran
 - Bamiyan, Afghanistan
 - Herat, Afghanistan
 - Mashad and the Shrine of Imam Reza, Iran
 - Shahr-i-Sabz (Kesh), Uzbekistan
 - Yazd, Iran
 - Additions to images of Bukhara and Samarkand, Uzbekistan
 - Images of Turkmenistan
- In our section on "Traditional Culture," a slide show of erecting a Ger (Yurt) in Mongolia, images from 2005.
- Historical Texts:
 - *The Kharosthi Documents from Chinese Turkestan. The complete text of Burrow's translations of the documents from Niya in the Stein Collection, courtesy of the Royal Asiatic Society.
 - *Accounts of Chinese Travelers to Central Asia in the Mongol era (from Bretschneider's classic compendium):
 1. Yeh-lu Ch'u t'sai (*Si Yu Lu*)
 2. Wu-ku-sun Chung tuan (*Pei Shi Ki*)
 3. Ch'ang Ch'un
 - * The Travels of John Marignolli, 1338-1353 — a Franciscan sent as papal legate to the Mongol Emperor of China.

Please remember that we are always interested in contributions of text or images, since this is an ongoing project with horizons as broad as the Silk Roads were long. Contact Daniel Waugh <dwaugh@u.washington.edu> with suggestions and corrections.



Bronze mirror fragments excavated in Feature 109 at the Tamir 1 site. Drawing © David E. Purcell 2006.