

investigating archaeological issues related to pastoral nomadism first explored by Lattimore (1938, 1992), including its origins, development, and economic and organizational structure (Ingold 1980; Vasil'evski 1985; Khazanov 1994; Desroches 2003; Rogers et al. 2005) and the relationship of these societies to neighboring states and empires (Linduff 1995; Barfield 2001; Di Cosmo 1999, 2002; Honeychurch 2003; Honeychurch and Amartuvshin 2004, 2006a, 2006b, 2007; Honeychurch et al. 2007; Honeychurch and Wright 2008).

Unlike the hilly flanks of Mesopotamia or lowland regions of China and Southeast Asia, the cold high plateaus of Inner Asia did not originate the first plant domesticates or earliest examples of urbanism, centralized states, or empires. However, this climatically harsh region has witnessed surprising instances of political development, economic centralization, and military prowess. Although Inner Asia was not in the vanguard of social and political complexity in Eurasia as a whole, steppe polities are now seen as having been advanced players in processes that contributed to such developments in neighboring regions, particularly the rise of nomadic pastoralism in the second millennium BCE. In fact, Mongolia may have led in the introduction of complex social and religious organization, at least in the eastern steppe region. In addition, Mongolian nomadic polities occasionally achieved impressive levels of self-generated development and periodically dominated larger agricultural states during the Late Bronze Age, Xiongnu, Uighur, and Mongolian Empire periods through the use of their superior cavalry, urban siege tactics, and deft economic and political manipulation.

In contrast to Mongolia's first "quasi-state" society, the historically known Xiongnu (ca. 2200–1800 BP), its prehistoric Bronze Age and Neolithic past is obscure. Potanin (1881) and Radlov (1893) were the first to comment on khirigsuurs (kurgans) and deer stones. However, it was not until Okladnikov (1954) and Dikov (1958) began investigating deer stones and kurgans in Trans-Baikal, and Gryaznov (1950, 1980) and Rudenko (1970) opened frozen mounds at Pazyryk and the huge Arzhan complex, that khirigsuurs were explored actively in Mongolia. But because the Mongolian mounds and deer stones produced no human remains or artifacts, it was assumed they had some other ceremonial purpose, especially as they were often accompanied by square stone slab arrangements set vertically into the ground that contained human remains, artifacts, and animal bones. At first, it appeared the slab burials were the missing burials belonging to the deer stone-khirigsuur complex; but it soon became evident the slab burials were architecturally

## CHAPTER 20

### Pre-Scythian Ceremonialism, Deer Stone Art, and Cultural Intensification in Northern Mongolia

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DEER STONES and khirigsuur mounds are the most visible features of the archaeological landscape in the steppe region of northern Mongolia. Standing as slender stelae silhouetted against the sky and dark mounds against contoured landforms, deer stones and khirigsuurs evoke a past that contrasts with as much as it conforms to the light-drenched landscape of gers and herders today. One world we see and understand; the other is only faintly visible through the stony remains of spiritual and ceremonial life. This chapter explores a time when stone men walked and spirits plied the mountaintops; when shamans sang, and warriors rode deer spirits to heaven. Once considered a marginal late-Scythian derivative, Mongolia's deer stones and khirigsuurs have recently been dated several hundred years earlier than Arzhan, and their elaborate burial mound architecture and artistic stone monuments indicate a level of socio-political intensification and complexity previously unknown among Bronze Age societies of the eastern steppe.

#### The Deer Stone-Khirigsuur Complex

THE ARCHAEOLOGY of central and eastern Asia has seen dramatic change during the past two decades. Some areas like Kazakhstan, Inner Mongolia, and Mongolia, which have been long closed to Western scholars, have become accessible now, while others like Tibet are almost completely unexplored. Despite uneven research activity, the high plateaus, steppe, and semi-desert regions between the Central China Plain and the Siberian taiga forests have emerged as productive loci for

intrusive and deer stones were frequently found recycled unceremoniously as corner posts and retaining walls. Recent research, including radiocarbon dating, confirms that slab burials represent an intrusion of Karasuk-related culture and people from the northeast, which marks the termination of the deer stone–khirigsuur complex (Jacobson 1993: 147; Amartuvshin 2003; Takahama et al. 2006: 77). Unfortunately, this fascinating subject and its implications (see Tsybiktarov 1997, 2003) are beyond the scope of this chapter.

In the absence of grave goods at Mongolian sites, interest quickly turned to deer stone engravings. Okladnikov suggested the stones were anthropomorphic cenotaphs to dead warriors and dated them to the Karasuk culture, circa 2500 BP, on the basis of tool typology. Research soon followed on Mongolian deer stones (Dikov 1958; Chlenova 1962; Volkov and Novgorodova 1975; Khudyakov 1987; Novgovodva 1989) and on deer stones and kurgan complexes of the Gorny Altai (Kubarev 1979). In 1981 [2002] Volkov published his extensive descriptive inventory of deer stone sites in northern Mongolia. This work was recently updated by Savinov (1994) and has been summarized in English by Jacobson (1993: 142–158; Jacobson-Tepfer 2001) and Tsbiktarov (2002; 2003). By the 1990s interest in deer stone research in Mongolia slowed as a result of political changes, absence of radiometric dates, and insufficient archaeological data to resolve conflicting interpretations. Soviet archaeologists concentrated on new surveys and excavations of frozen sites of the Pazyryk culture, producing important new interpretations (Molodin 2000; Polosmak and Molodin 2000). Jacobson (1998; 2002; Jacobson et al. 2001) investigated western Mongolian rock art. Sanjmiatav (1995) and a few others have worked on deer stone iconography, cultural associations, and related Bronze Age subjects, but in the absence of excavation, questions concerning chronology, relationships between khirigsuurs and deer stones, Scytho-Siberian animal style art connections, and its place in Central Asian culture history remained unanswered.

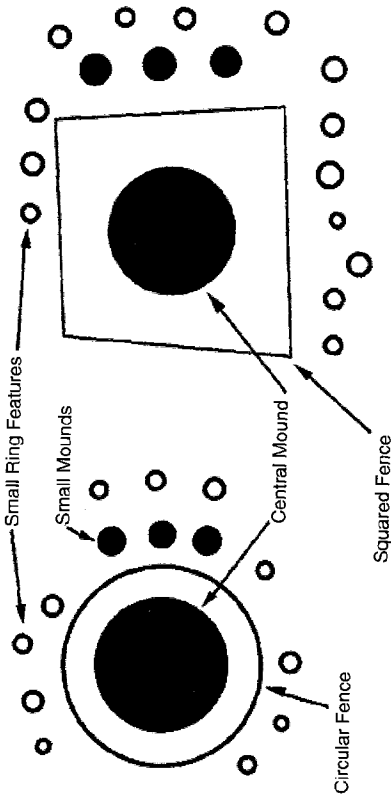
A new phase of research began when Kanazawa University began work at the large Ushigiin Uver deer stone and khirigsuur site in 1999 (Takahama et al. 2006). Concurrently, an interdisciplinary Smithsonian program in Khovsgol Aimag began to study northern Mongolia's connections to Siberia and the circumpolar world, one focus of which related to Bronze Age ceremonialism and art. This phenomenon has important implications for Inner Asian cultural development but has been overlooked because of the paucity of grave goods and the nearly complete absence of settlement sites and domestic material culture. Even if some

mounds date to later periods, the hundreds of deer stones and tens of thousands of khirigsuurs found throughout the northern Mongolia steppe zone exceed by quantum factors the archaeological traces of all previous periods of Mongolian prehistory. Furthermore, the deer stone–khirigsuur complex in central northern Mongolia, with its adherence to a single artistic genre, a single iconic deer motif, and production of architecturally complicated yet standardized public works at the core of large-scale ceremonial events, implies significant hierarchical social and political control. The deer stone–khirigsuur complex therefore marks a major advance in social and political evolution over a large region of Inner Asia where pastoral nomadism developed and came to dominate much of the Eurasian grassland core, setting in motion a long-standing conflict between settled agriculturalists and nomadic peoples that changed the course of world history.

### Khirigsuur Mounds

OF THE two monument types, mounds are far more numerous and widely distributed. Unlike simple mounds or rock pavements known from later periods, khirigsuur architecture signifies complex ceremony and extensive social investment, in both construction and use (Allard and Erdenebaatar 2005; Fröhlich and Bazarsad 2005; Takahama et al. 2006). Physically, they have a concentric arrangement of components around a mound of boulders or a circular pavement of flat slabs or rocks (Fig. 20.1). Mound sizes range from a few meters to 40 meters in diameter and up to 4–8 meters in height. The central mound is almost always surrounded by a circular or square fence-like construction of rocks. The space between usually has a cobble or rubble pavement that is today frequently covered by wind-blown deposits. The size of the enclosure conforms to the size of the central mound and may be only a few tens or hundreds of square meters for a small mound, while large khirigsuurs like Urt Bulagyn in Arkhangai Aimag have enclosures thousands of square meters in area. Circular fences are generally perfectly round, whereas most square fences have trapezoid-like proportions (Allard and Erdenebaatar 2005; fig. 5), frequently have small rock mounds or pavements at their corners, and are often marked by a standing slab.

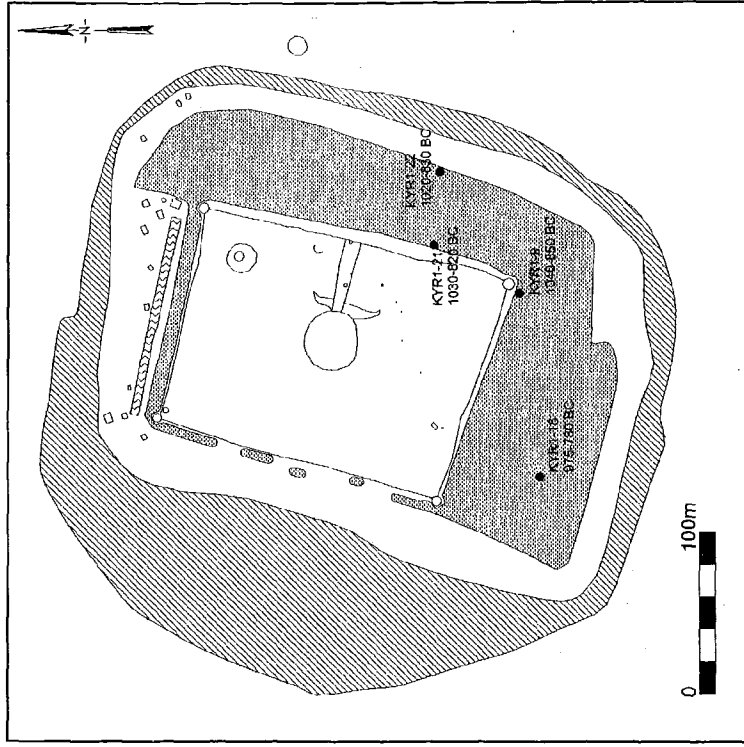
Two types of satellite features usually accompany round- or square-fenced khirigsuurs. Small rock mounds 2–3 meters in diameter are found concentrated outside the eastern fence, and after the most prestigious locations were utilized, mounds begin to be constructed along



**Figure 20.1.** Plan of idealized square and round khirigsuur types (Frohlich et al. 2005).

the south and north sides of the fence. At Urt Bulagyn (ca. 800 BCE) satellite mounds are arranged in orderly geometric rows along its southeast and southwest fence walls (Allard and Erdenebaatar 2005; Fig. 20.2). On or just below the ground surface at the center of these mounds one almost invariably finds an east-facing horse skull with its maxilla and mandible articulated, accompanied by articulated cervical vertebrae and hooves. Frequently, cut marks indicate dismemberment or de-fleshing, and rarely a ceramic fragment or bones of other animals are present. It is widely supposed that these mounds represent horses sacrificed to honor the individual buried in the central khirigsuur mound, and one presumes, because the number of horse mounds correlates with the size of the khirigsuur, the number of horses sacrificed is a proxy for the status of the individual buried.

The fourth component, often but not always present, are small satellite boulder ovals or rings, 1–1.5 meters in diameter. These hearth features, which contain charcoal and cremated or burned bones of sheep, goats, and larger mammals, may be scattered without obvious geometric arrangement but also can occur in regular lines and ranks outside the horse mounds. While horse burials are rarely found on the west or north sides of the fence, ring features are frequently found here, and at Urt Bulagyn more than 1,000 oval rings are located in this position. Rings may also be present inside the fence together with other stone features, like a stone apron pavement or “horns” extending from the east side of the central mound toward the east fence (Takahama et al. 2006: pl. 2).



**Figure 20.2.** Urt Bulagyn KYR1 mound showing radiocarbon-dated horse head features KYR1-9, 18, 21, and 22 (dates for features 9 and 18 courtesy of Francis Allard; map modified from Allard and Erdenebaatar 2005: fig. 3).

Sometimes individual “key-stones” are found beyond the horse mounds and oval rings, perhaps to align the khirigsuur with a specific hill or mountain peak on the eastern horizon, if not a celestial position. These features and horse mounds give khirigsuurs a strong east- or southeast-facing orientation (Allard and Erdenebaatar 2005: 554, Fig. 3).

The foregoing description applies to khirigsuurs from Khovsgol and Arkhangai Aimag and neighboring areas of northern Mongolia and Trans-Baikal (Tsybiktarov 1997, 1998, 2003). Further to the south and west, mounds display greater architectural variation, and in Tuva khirigsuurs, known locally as kurgans (Kubarev 1979; Savinov 1994), are even more diverse, signifying different cultural traditions and perhaps

different chronology. The classic northern Mongolian deer stones display a similar relaxation of their formal organizational pattern concurrent with increasing diversity of motifs and elements as one proceeds toward the north and west where Type II and III deer stone styles predominate.

Many Khovsgol khirigsuurs that have been excavated or observed after looting have a rectangular stone crypt at or slightly below ground level near the center of the mound. We have found both human and animal bones in these tombs, and all six mounds excavated in 2006 contained human burials (B. Frohlich personal communication 2007). However, some excavated mounds lack obvious burial features and human remains (e.g., Takahama et al. 2006: 67). Sometimes a few personal artifacts are found, such as small bronze buckles or harness ornaments, a bronze knife, or a few fragments of ceramics, but little else (Erdenebaatar 2002). Some mounds have flat tops, but most are domed or conical unless their stones have been robbed in later years. Stone robbing and absence of human remains has led some to suggest that mounds served as altars or ritual platforms rather than burials (Jacobson 1993: 146). However, because most burials are placed within the upper 1.5 meters of soil, or were simply laid on the surface of the ground and covered with boulders, absence of human remains may simply reflect poor organic preservation.

Until recently (Tsybiktarov 1997, 2003; Takahama et al. 2006), khirigsuurs were often not mapped systematically and frequently were not excavated carefully. Recent studies by Allard and Erdenebaatar (2005) explored celestial orientation of khirigsuurs and horse head burials in the Khanuy Valley (both are oriented to the east-southeast, with about 45 degrees variation), dimensions and shapes of "square" fences (wider on the east sides than on the west), and the distribution of mounds in the landscape. Two horse mounds from Urt Bulagyn produced dates of cal. 1040–850 BC and 975–680 BC (Allard and Erdenebaatar 2005: 551), suggesting large khirigsuurs were used over hundreds of years. However, excavations conducted jointly with the Smithsonian in 2006 (Fig. 20.2), which were done to test the length of occupancy by dating a horse mound in the first rank outside the fence (presumably an early sacrifice) and a mound in the outermost rank (one of the last sacrifices) produced identical dates (KYR-1-21, cal. BC 1030 to 820, and KYR-1-22, cal. BC 1020 to 830). This suggests that the site's 1,700 horses could have been sacrificed and buried within a few years or decades, or possibly even in a single monumental ceremony.

A detailed regional mapping project being conducted by Bruno Frohlich employs exhaustive surveys and precision GPS mapping to investigate mounds in selected regions near Muren and in the Darkhad Valley (Frohlich et al. 2003, 2004, 2005; Frohlich and Bazarsad 2005; Wallace and Frohlich 2005). These data enable statistical quantification of settlement patterns, relationships of size and types of mounds with landforms, and orientations to landforms and also facilitate use of mound data as proxy indicators of local population size, gender, age, social structure, social hierarchy, and complexity.

### Deer Stones

REPRESENTING HUMAN figures with bows, swords, and belts with hanging daggers, axes, and other articles of male materiality (Fig. 20.3), and with torsos displaying images of stylized cervids with giant flowing antlers, deer stones extend across Mongolia's northern steppe and southern Sayan Mountain foothills from the Altai of western Mongolia and nearby Russia nearly to Baikal. For more than 50 years, studies have established the anthropomorphic nature of these monuments (Okladnikov 1954; Dikov 1958; Gryaznov 1984; Novgorodova 1989; Jettmar 1994), whose general ceremonial nature has been inferred from a combination of Herodotus's descriptions of Pontic Scythian ritual and archaeological reconstructions of deer stone images. Few excavations have been conducted to determine archaeological context, relationship to khirigsuurs, or absolute age and stylistic development.

In the Khovsgol region, deer stones are often found singly or in small isolated groups that are usually, but not necessarily, associated with khirigsuurs. Some deer stones are embedded in (or even used as construction material for) khirigsuur mounds (Allard and Erdenebaatar 2005: fig. 9; Hatakeyama 2002) in addition to their irreverent use as construction materials in slab burials (Amartuvshin 2003; Tsybiktarov 2003).

When found in groups of two or three, deer stones often are set without obvious geographic orientation, but when present in larger numbers, such as at Ulaan Tolgoi (5 stones) or Uushigiin Uver (15 stones), they tend to occur in north-south alignment (Volkov 2002: 78; Takahama et al. 2006: pl. 2). Deer stone shapes vary from broad, low stones a meter high to slender stones from 1 to 3.5 meters in height. As Jacobson-Tepfer (2001: 33) has noted, research on deer stones has been complicated by problems of classification and terminology, which has resulted

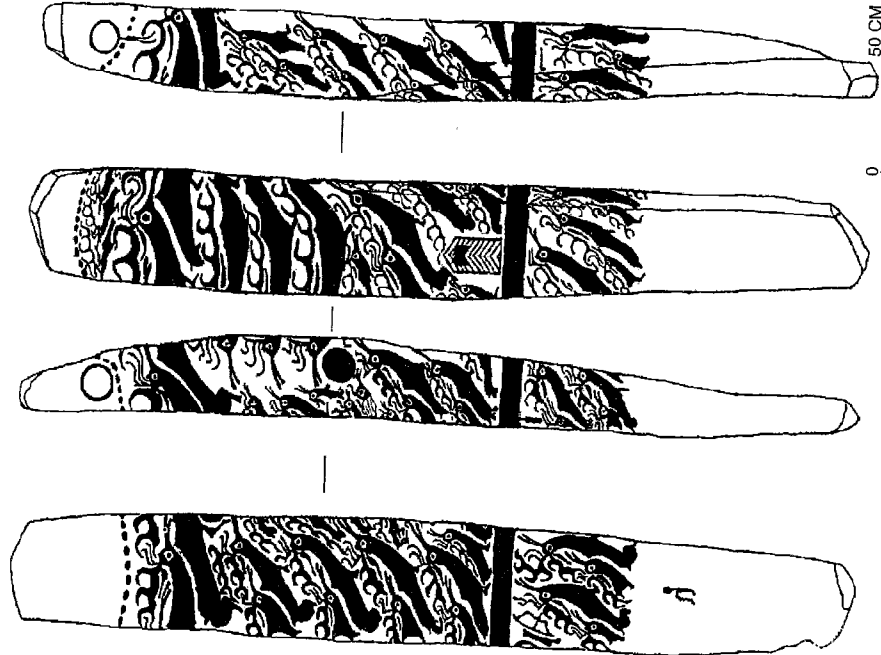


Figure 20.3. Deer Stone 1, Undur Ulaan, Arkhangai Aimag (Volkov 2002: pl. III).

in confusion in discussions of geographic distribution and cultural affiliation. For instance, it has been claimed that deer stones are found as far west as the Black Sea, Georgia, and even the Elbe (Chlenova 1962; Savinov and Chlenova 1978, cited in Jacobson 1993: 142). These stones have little resemblance to classic Mongolian deer stones, and their affiliation with the eastern stones is questionable. Even in the more restricted region of Mongolia, Tuva, and Altai, deer stones have various styles and exist in different architectural and cultural contexts, and some of these variants probably date to different chronological periods (Savinov 1994;

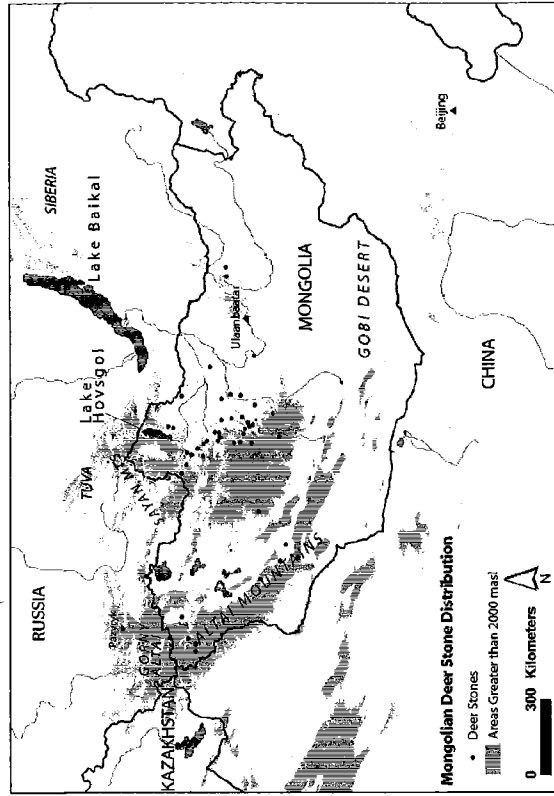


Figure 20.4. Deer stone sites in Mongolia (after Tseveendorj et al. 1999: 68).

Jacobson 1993; Jacobson-Tepfer 2001). Volkov identified 300 deer stones in Mongolia (Fig. 20.4) and noted that another 300 existed in neighboring Tuva, Altai, Kazakhstan, and China. However, Kubarev (1979) reported more than 500 in Mongolia, 30 in Tuva, and 50 in the Russian Altai. Extrapolating from new deer stones we have found in Khovsgol Aimag since 2002, more than 1,000 deer stones may exist in Mongolia alone.

While there are three or more regional deer stone style variants present in the core area of northern Mongolia, Sayan-Tuva, Gorno-Altai, and nearby regions of China, we are concerned here with the “classic” or “Mongolian” deer stones described by Volkov and Novgorodova (1975; Volkov 2002; Novgorodova 1989), called Type I by Savinov (1994), which are found predominantly in northern Mongolia. In its characteristic form, the Mongolian deer stone is a square or rectangular slab of hard rock – usually granite but sometimes of graywacke or diabase, usually having an angled top, with carvings on one or multiple sides with deer images wrapping entirely around all four sides. Sometimes the carvings wrap around the entire stone. These carvings have been the subject of intense scholarly interest with regard to semantics, meaning, and function. Most stones are set with their front side facing east.

Deer stones typically have three ornamented sections, each covering about a quarter of the stone's length, with the fourth undecorated section embedded in the ground (see Fig. 20.3). The top section often has a set of large round grooved rings with dangling ornaments carved into opposite sides of the stelae. When occurring with the carving of a human face on one of the other sides – known in only a few cases, most notably on Ushigiin Uver (UU) Deer Stone 14 (Volkov 2002: pl. 79) – these rings have sometimes been interpreted as mirrors with handles, but their context and form more certainly identify them as Late Bronze Age carrying hoops with bifurcated pendant attachments. Much more common are stones without carved faces but whose earrings on opposite sides of the stone, with or without dangling ornaments, establish anatomical reference. However, adjacent smaller rings may also accompany these large rings, and in these cases a multi-symbolic function links human anatomy with images of the sun and moon (UU4; Takahama et al. 2006: pl. 14). More confident identifications of the sun or moon occur when these motifs are depicted as large and small discs engraved into the central panel area among images of deer (UU 2, 8; *ibid.* pl. 13, 17). Deer stone semantics also frequently have shamanic reference. The UU 14 stone face has a rounded mouth suggesting enactment of shamanic breath or singing, a common feature of circumpolar shaman ritual. This otherworldly and perhaps explicitly celestial upper part of the stone is often set off from the middle panel by a looping necklace-like line of engraved pits or cupmarks.

In contrast to this celestial or anatomical reference in the stone's upper domain, the lower part of the tableau invariably deals with worldly power and status. This is usually represented by a geometrically hatched or textured warrior's belt from which hang such items as dagger, axe, sword, fire starter, or other implements. Rather than being a standardized warrior's kit, the inventory and the form of objects vary from stone to stone, creating the impression that they represent the specific assemblages belonging to individual warriors. Tools and implements also sometimes float above the belt in the lower part of the middle panel.

The middle panel carries images of an abstract, stylized, elongated deer with a distinctive peaked withers and antlers that flow along its back in a series of wave-like curls. Okladnikov thought the two forward-pointing tines over the brow identified this animal as a reindeer, but the absence of the broad expanding reindeer brow tine and the elegant wave-like antlers more likely signifies the Asian roe deer, also known as elk or maral (*Cervus elaphus sibiricus*). The most prominent deer figures

are positioned singly or stacked in tightly nested ranks and are usually shown in slanted, ascending attitude, with smaller deer added into the tableau to fill blank spaces, as though it was important to include as many of these images as possible on one stone. Legs are recumbent, folded as though running or flying, never extended straight, and a prominent round eye is present. While the antler form indicates the roe deer, the curiously elongated, bulbous snout, shown partly open as though calling or speaking, is distinctly un-deer-like and resembles the bill of a large water bird, suggesting the image may depict a cervid–water bird transformation spirit. Unlike belt-accoutrements, whose implement types and forms vary from stone to stone, the deer spirit figure is always rendered in a single iconic form. Despite the standardization of this crucial motif, the number and arrangement of deer images vary from one stone to the other and, like the tool belt distinctions, give the impression of unique personalized representation.

In addition to the standard elements and tri-partite structure, other motifs are common. In addition to “sun” and “moon” discs, re-curved bows, quivers, and other implements, the central torso may include a chevron image that is often interpreted as a warrior's shield but which may be an emblem of shamanic power, perhaps representing an animal's skeletal or palate image. Like Savinov and Chlenova, and Vainshtein (cited in Jacobson 1993: 154), Bayarsaikhan (2005) has noted its similarity to the skeletal-like motif found on ethnographic shaman drum handles and drum beaters, a widespread theme in circumpolar shamanism and art and a probable indication of Siberian cultural affiliation for deer stone iconography.

The structure of deer stone art embodies a stylized anthropomorphic reference whose distinctive belt and tool varieties and the arrangement of deer motifs, chevron, and other forms suggest they represent a particular warrior or leader. This seemingly personalized treatment is set against a standardized torso tableau dominated by stylized deer-bird, sun, and moon motifs whose essential features never change except in number and placement. That this exact iconic image also occurs on rock art in western Mongolia (Jacobson-Tepfer 2001: 50), and Hovsgol (see Fig. 20.10) suggests a deer cult central to the cosmology of this period and culture. Early on, Okladnikov and Dikov offered the opinion that deer stones commemorated and represented powerful warriors and chiefs and that the three panels reflected cosmology of heaven, earth, and underworld, and this idea has persisted with minor differences of interpretation (Chlenova 1962; Kovalev 1987; Dobzanski 1987; Volkov and

Novgorodova 1975; and Savinov 1994; Jacobson-Tepfer 2001: 38). Given the ancient practice of tattooing, known archaeologically from Pazyryk and similar sites and which can be inferred from Asian rock art, Jomon figurines, and ethnographic clothing from ancient to modern times, it seems likely that the deer image served as “armor” to protect warriors from injury or harm and that the art shown on the deer stones replicates images tattooed on the bodies of the leaders they represent (Gryaznov 1984; Jettmar 1994; Polosmak and Molodin 2000: 83; Polosmak 2000). The presence of shamanic elements and absence of human burial remains may indicate that deer stones were erected to honor specific fallen heroes who died elsewhere and could not be buried in the normal manner in khirigsuurs. We may further speculate on the basis of widespread ethnographic and archaeological evidence in eastern and northeastern Asia and North America, that the souls of these chiefly warriors nevertheless needed to be dispatched to the upper world with the aid of shamans and deer-bird spirits in ceremonies centered on the erection of personalized monuments with feasting and the sacrifice of horses.

#### Previous Research

THIS REVIEW of aboveground features reveals a welter of research problems related to deer stones, khirigsuurs, and Late Bronze Age ceremonial life and belief systems. What was the function of the mounds? Was it for human burials, altars for sacrifices or offerings, or some other purpose? As has been argued by others, are the elaborate mound architecture and satellite features based on celestial or solar models, chariot wheel images, or something else? Was the purpose of the fence to create an inner sacred space for the mound and its contents and ceremony apart from worldly matters of horses and feasting? What was the significance of the square versus round enclosures? Do they signify the gender of the deceased, or lineages, clans, or some other concept – for instance, the 3,000-year tradition of circular and square sacred mounds and temples expressed in Han and Ming concepts of *mingtang* (sky: square, earthly temple) and *biyong* (earth: circular, heavenly temple)? What were their dating ranges, and how did this relate to demography, regional variation, and settlement patterns? There are also a host of questions involving the relationship between khirigsuurs and deer stones. Even less information is available on the deer stones themselves. What did the stones commemorate? What was the meaning of their human form, symbols, and deer images? What was their origin, and how long were they in use?

What was their distribution and geographic variation? What is the age of slab burials, and how do they relate to the deer stone complex?

General consensus is based on Savinov’s (1994; Jacobson-Tepfer 2001: figs. 3–5) analysis identifying deer stone “types,” each having a slightly different geographic and cultural context but with areas of overlap. Type 1, the classic belted anthropomorphic northern Mongolian stone, is dominated by the stylized iconic image of a great deer with flowing antlers (Savinov 1994: figs. 1–3). Type 2, centered in the Sayan Mountain in Tuva, carries freestanding images of animals such as deer, horses, and goats, including, sometimes, tigers, often shown standing with legs extended (Savinov 1994: figs. 4, 5). Type 3, found mostly in the Altai, has few animals and rare instances of the deer motif, but it has circle grooves, slash marks, and necklace-like pits near the top of the stone (Savinov 1994: fig. 6), linking this Altai type with Type 1 Mongolian stones more than the Sayan type. Until 2003 none of these types had been radiocarbon-dated, although various authors had suggested ages from circa 2800–2000 BP on the basis of weapon styles, association with square burials, and other criteria. We are concerned here with dating and context of the Type 1 “classic Mongolian” deer stone rather than a re-evaluation of style, internal analysis, or interpretation.

Jacobson’s critical assessment of a century of deer stone studies as containing much “wishful mythologizing” (Jacobson-Tepfer 2001: 38) also applies as well to the study of khirigsuurs. The Smithsonian–Mongolian Deer Stone Project set out to establish a foundation for studying this complex. Our first objective was to establish a radiocarbon chronology, because until now deer stone dating has been based on typological comparisons only. A second goal was to explore a particular deer stone site, Ulaan Tolgoi, to determine spatial relationships, identify associated features, and learn about site organization and duration of use. A third goal was to examine the relationship between deer stones and khirigsuurs. We also hoped to learn about deer stone semantics and form, typological variety, and the role deer stones play in Mongolian Bronze Age life and cosmology.

#### Landscape, Ritual, and Cosmology

THE ULAAN Tolgoi site, named for a small and isolated 250-meter-high hill rising from the valley floor eight kilometers west of Erkhel Lake, contains hundreds of khirigsuurs and five granite deer stones (Figs. 20.5 and 20.6). Near the deer stones are several of the largest khirigsuurs





Figure 20.5. GPS mapping at Ulaan Tolgoi deer stone site, view south.

in the Erkhel Valley, and on the south and east side of the hill large numbers of smaller khirigsuurs extend up the rocky slope to the summit. All mounds are located on the eastern and southern slopes. The presence of human remains in mounds opened by looters and recent khirigsuur excavations conducted by Frohlich west of Muren suggest that most if not all are burials and that the absence of human remains in some mounds results from poor preservation.

Bruno Frohlich has conducted precision GPS-based surveys in the west Darkhad Valley and Muren region of Khovsgol Aimag since 2003. These surveys are investigating variation in mound form and size, identification of associated features, geographic relation to landscape and topography, clustering of mound types, and other questions. Preliminary results indicate that the pattern in the placement and types of khirigsuurs at Ulaan Tolgoi is replicated in the West Darkhad and Muren regions (Frohlich and Bazarsad 2005). On the basis of these data, it appears that mound density per given area reflects some sub-set of the population of a local tribe or clan and thus may provide a key for reconstructing population size. However, the distribution of mounds over the landscape is not even, as there is a tendency for clumping in relation to geographic

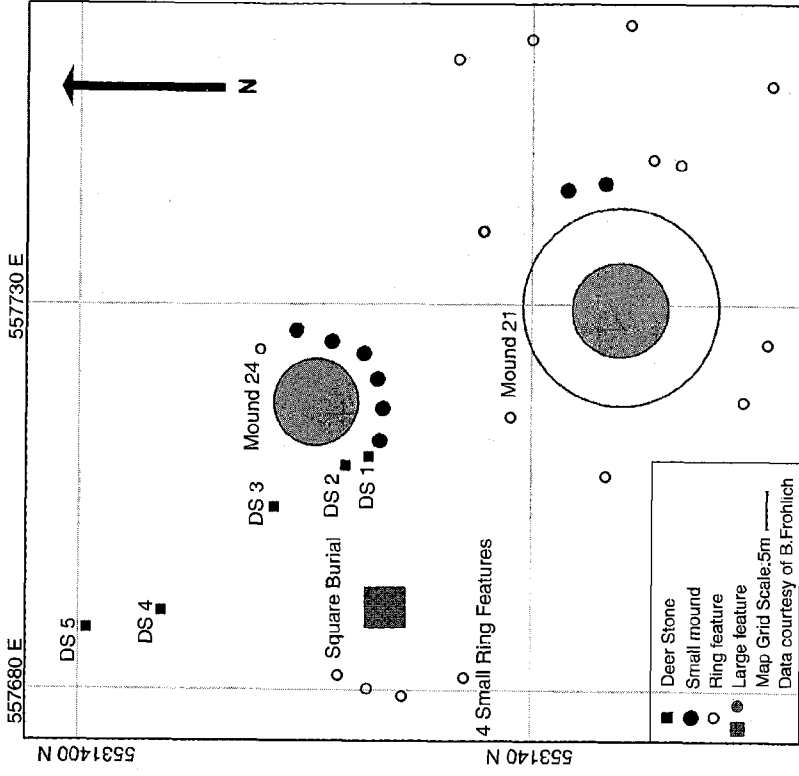


Figure 20.6. Ulaan Tolgoi khirigsuurs 21 and 24, and Square Burial in vicinity of Deer Stones 1–5.

features. Khirigsuur size also correlates with geography. Larger, more complex (Type 1) khirigsuurs are found in relatively few numbers in the valley lowlands; smaller and less complex (Type 2) structures are more common and occur along the valley margins; and still smaller (Type 3) mounds, often the most common, are found on higher east-facing hill slopes. The consistent construction of mounds in the southeastern sectors of hills, like the preference for placement of satellite mounds and of east-facing horse skulls, is generally believed to reflect orientation to the rising sun, an explanation often given by modern herders. Even today, the custom continues of placing the skulls of departed horses in eastern site orientations and at the tops of special hills. Finally, comparisons



between the Muren, Erkhel, and Darkhad regions indicate north-south gradients in the numbers and sizes of khirigsuurs and deer stones, with the largest khirigsuurs and greatest numbers of deer stones around Muren and progressively fewer in the Darkhad Valley. These trends most likely have an environmental basis, as they conform to ecological gradients like water availability, elevation, temperature, and pasture quality and to economic indicators like herd size, human population levels, and proximity to population centers.

Distribution studies suggest a model of scalar replication and an eastern-orientation principle may explain individual, local, and regional social and spiritual obligations of a deer stone–khirigsuur cosmology. Specifically, mound and deer stone site density at the regional geographic scale appears to parallel the architectural structure of *individual* khirigsuurs and *individual* horse burial features. Ulaan Tolgoi, clearly a sacred eminence, is the local community-scale equivalent of the khirigsuur's central mound, and the east-facing khirigsuurs on Ulaan Tolgoi's slopes are the geographic equivalent of satellite mounds and ovals found around the east side of khirigsuurs, and of east-facing horse skulls at the scale of individual mound and deer stone features. Furthermore, the concentration of hillside khirigsuurs, like satellite mounds and ovals, diminishes in number toward the south and north sides of the hill and are absent to the west and northwest.

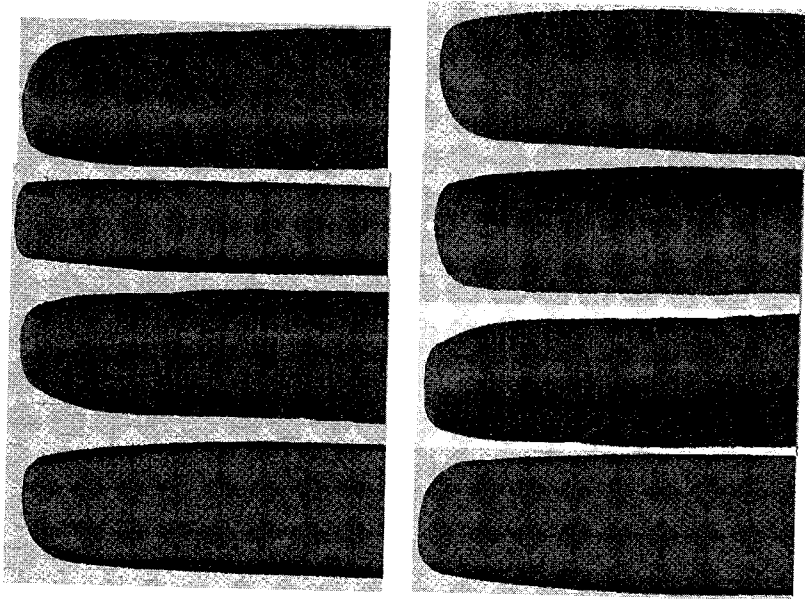
Replication of the eastern-orientation principle in horse features, satellite mounds, khirigsuur construction, and sacred hills indicates a unified cosmology at the core of the deer stone–khirigsuur relief system. This arrangement suggests a hierarchy of relationships in which an individual's relations with society – in this case, the spiritual society that exists after death – are structurally mapped out from the center of the khirigsuur as in a kinship chart: “ego” – the deceased – is at the center, with people having social or political obligations with that individual represented by horses offered in the satellite mounds, and families or other social groups consuming animal offerings represented in the oval feasting hearths that surround the khirigsuur. At the local geographic level, the central hill – in this case Ulaan Tolgoi and its universe of khirigsuurs – represents the spiritual death community of ancestors bound to the spirit of the hill itself, acting as the collective ancestral spirit of the entire local community. Higher levels of social integration through the celebration of death and renewal ritual may follow the pattern of political hierarchy above the local level at some regional scale. This ceremonial scale seems represented by larger ceremonial sites like those at

Uushigiin Uver (Takahama et al. 2006) or other locations where the size of khirigsuur monuments increases by significant factors, as clearly seen in the huge monument of Urt Bulagyn and others in the Khanuy Valley (Allard and Erdenebaatar 2005). In this way, the material features of the Bronze Age belief system seem to replicate a shared cosmological model at the full range of social and political scales – horse, individual, community, regional, and macro-social scales – all of which have separate geographic orientations to deities, spirits, or ancestors residing in appropriately scaled cosmological levels with equivalently structured sets of topographic eminences, from horse mounds to khirigsuur mounds to local hills to sacred mountains. Such a model would be consistent with the hierarchical social structure that seems to be a pervasive principle in Bronze Age society in general.

#### Ulaan Tolgoi

TURNING TO deer stones, we spent a week each season from 2002–2006 mapping and excavating at the Ulaan Tolgoi site (Fitzhugh 2003, 2004a, 2004b, 2005). This site has five deer stones positioned in north-south alignment in the midst of a jumbled field of rocks protruding from the grassy steppe. Four of the stones are approximately 1–1.5 meters tall and are boldly ornamented, while a fifth, DS 2, is approximately 3.5 meters high and is covered with exceptionally beautiful, lightly cut engravings (Fig. 20.7). This stone has a diagonal zone of differential weathering that indicates it had fallen and was partially buried in the soil at a 20–30 degree angle for many years. Local herders told us it was pulled upright by a tractor and re-set several decades ago. A few meters to the south, DS 1 had also fallen and was re-set in concrete by Russian archaeologists. A slab grave a few meters west of DS 2 also seems to have been excavated, but the northern deer stones appeared to be undisturbed. All of these monuments were probably quarried from the granite hill bordering the south shore of Erkhel Lake, where slabs of similar size and quality can be found today.

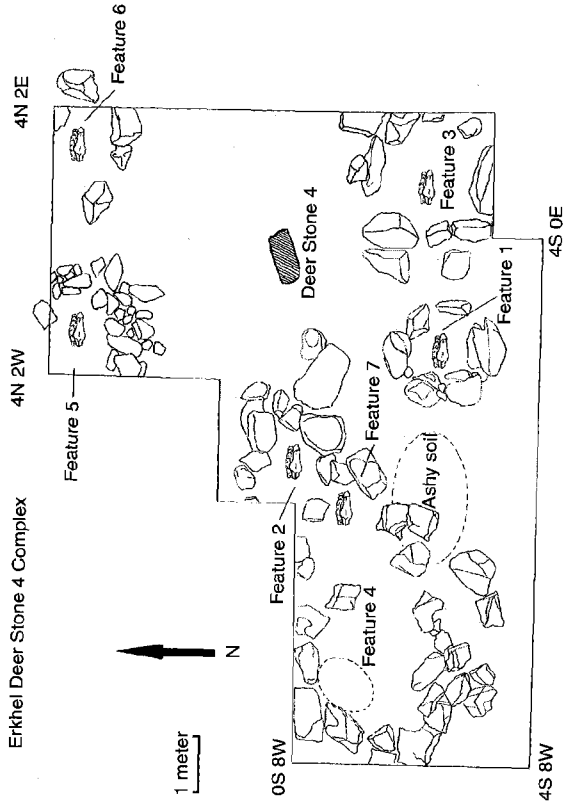
During our first season we mapped DS 5 and its surroundings and excavated a trench, 1 by 2 meters, 50 centimeters south of the deer stone. The purpose of the trench was to explore the deer stone setting for burials, artifacts, and ritual activity and to search for datable bone or charcoal (Fitzhugh 2005: 14–21). The excavation produced no human or animal bone, but a small charcoal sample recovered was dated (cal. 2150–1960 BP – see Table 20.1). The deer stone had been set in a narrow vertical hole just large enough for its base without any other ritual preparation.



**Figure 20.7.** Laser image of the top portion of Ulaan Tolgoi Deer Stone 2 (courtesy V. Karas and Harriet Beaubien).

We also excavated a small oval ring feature 50 meters east of DS 5. This feature was identical to oval features found in the outer tier of khirgusuur complexes, but in this case it was associated with deer stones. In its center we found charcoal stains and calcined bone fragments of small and large mammals, which were too fragmented to be identified.

In 2003 and 2004 we mapped the Ulaan Tolgoi deer stones and expanded the excavations at DS 4 and its surroundings (Fig. 20.8; Fitzhugh 2004, 2005b; Frohlich et al. 2004, 2005). Once again, nothing was found in direct contact with the deer stone, but we were surprised to discover a series of small circular or oval buried rock features encircling the base of the deer stone, each containing a horse head, vertebrae,



**Figure 20.8.** Excavation plan of Ulaan Tolgoi Deer Stone 4 showing circle of east-facing horse head burial features.

and hooves. Subsequent work through 2005 revealed seven horse head features. Six contained horse skulls and mandibles buried facing east with the cervical vertebrae column along the south side of the skull and hooves usually placed along the north side. The horse features did not include artifacts or other remains except for a few hand-sized pecking stones. In the upper levels of the soil, we found a few thick undecorated ceramics and a fragment of a stone bowl, which we determined to be part of a later ephemeral post-deer stone component linked to a circa 2000 BP date.

Excavations at the base of DS 4 failed to produce charcoal or other datable material, but a charcoal sample (S7, B-r82959) associated with a pecking stone and a small piece of burned ceramic at the base of the cultural deposit west of DS 4 was found with charcoal dating cal. 3220–2950 BP. This pecking stone had been abraded around its entire surface. Several other pecking stones recovered around the base of the deer stone, mostly in and between F1 and F3, were made of hard “greenstone” and had battered working edges matching the rounded grooves of the stone carving. Finding pecking stones within the horse burial features, and associated

with the cultural level, allows us to directly link the horse features with the production of deer stone art. This connection was later supported by a series of dates of horse bone and teeth from the cluster of horse head burials surrounding DS 4, which dated between cal. 3200 and 2800 BP (Table 20.1).

Averaging the six DS 4 features gives a date for the ceremonies connected with this deer stone of cal. 2995–2895 BP. An almost identical age date is indicated for the average of two horse head burial dates from DS 5, cal. 2925–2885 BP. Reliability is high because most are collagen AMS dates from dense horse tooth. A slightly earlier date has been obtained from a horse head burial at the Tsatstain Khoshuu deer stone site south of Tsaganuur in the northern Darkhad Valley (cal. 3330–3060 BP). These dates are consistent with two dates from khirigsuur satellite horse mounds at Urt Bulagyn (1040–850 BCE and 975–680 BC; see Fig. 20.2) and only slightly earlier than other horse mounds dated in the Khanuy Valley (1390–910 BC and 930–785 BC, see Allard and Erdenebaatar 2005: 551–553). These ages are consistently 200–300 years earlier than dates from Arzhan and other early Scythian-related sites in southern Siberia and Central Asia (Sementsov et al. 1998). These dates and identical horse rituals begin to resolve questions raised by Jacobson (2001: 48–51) and others as to whether deer stones and khirigsuurs belong to a single culture, a fact accepted by most Russian and Mongolian specialists for many years, or whether khirigsuurs and their satellite features were created as short-term events or accumulated as palimpsests over decades or even hundreds or thousands of years (Allard and Erdenebaatar 2005: 561). It has also been debated as to whether deer stones and khirigsuurs were components of a single ceremonial system or were independent. Importantly, our dates now show that deer stones and khirigsuurs are ceremonial aspects of the same culture.

In order to investigate deer stone–khirigsuur relationships, we began excavations at Mound 1, a large square khirigsuur 100 meters south of the Ulaan Tolgoi deer stones. This is the largest khirigsuur at Ulaan Tolgoi region. The east side of its central mound has been robbed of stones in recent times, creating a deep depression but not diminishing the original height. Everywhere else, the building stone was simply dumped to create the mound but on the north side of the mound the top portion was laid up in nearly horizontal courses. An apron of small cobbles extends from the east side of the mound to the fence wall. In all there are 110 satellite mounds: 54 are lined up in four parallel ranks outside the east fence, 18 in two ranks along the north fence, and 36 in three

Table 20.1. Radiocarbon dates from deer stone and khirigsuur sites in Khovsgol and Arkhangai Aimag, 2002–2006

Site / Feature	Location/Year	Sample no.	Material	Uncorrected	Calib. (2-sig)
Ulaan Tolgoi DS 4 S-17	Erkhel / 2003	B-18298 AMS	Charcoal	2170 ± 40 BP	BP 2320–2050
Ulaan Tolgoi DS 4 S-7	Erkhel / 2003	B-18299 AMS	Charcoal	2930 ± 40 BP	BP 3220–2950
Ulaan Tolgoi DS 4 F1	Erkhel / 2004	B-193738 AMS	Bone collagen	2530 ± 40 BP	BP 2750–2470
Ulaan Tolgoi DS 4 F2	Erkhel / 2004	B-193739 AMS	Bone collagen	2950 ± 40 BP	BP 3240–2970
Ulaan Tolgoi DS 4 F3	Erkhel / 2004	B-193740 AMS	Bone collagen	2810 ± 40 BP	BP 2990–2800
Ulaan Tolgoi DS 4 F5	Erkhel / 2005	B-207205 RAD	Bone collagen	2790 ± 70 BP	BP 3220–2800
Ulaan Tolgoi DS 4 F6	Erkhel / 2005	B-207206 RAD	Bone collagen	2740 ± 70 BP	BP 3150–2780
Ulaan Tolgoi DS 5, T1	Erkhel / 2002	B-169296 AMS	Charcoal	2090 ± 40 BP	BP 2150–1960
Ulaan Tolgoi DS 5, F1	Erkhel / 2005	B-215694 AMS	Tooth collagen	2800 ± 40 BP	BP 2980–2790
Ulaan Tolgoi DS 5, F2	Erkhel / 2006	B-222535 AMS	Tooth collagen	2830 ± 40 BP	BP 3050–2850
Ulaan Tolgoi Mt, F1	Erkhel / 2005	B-207209 AMS	Bone collagen	1880 ± 40 BP	BP 1900–1720
Ulaan Tolgoi Mt, F2	Erkhel / 2005	B-215692 AMS	Tooth collagen	2860 ± 40 BP	BP 3080–2870
Ulaan Tolgoi Mt, F2	Erkhel / 2005	B-215644 AMS	Charcoal	2980 ± 40 BP	BP 3310–3000
Ulaan Tolgoi Mt, F3	Erkhel / 2005	B-215693 AMS	Tooth collagen	2950 ± 60 BP	BP 3320–2940
Nukhtin Am DS 1/2, F1	Galt / 2006	B-222534 AMS	Tooth collagen	2830 ± 40 BP	BP 3050–2850
Evd 2 DS 2 Circ. feat.	Evd 2 Valley	B-215643 AMS	Charcoal	3030 ± 40 BP	BP 3350–3090
Tsatstain Kh DS 1, F1	Tsaagan / 2005	B-207208 AMS	Tooth collagen	2920 ± 40 BP	BP 3160–2920
Tsatstain Kh DS 1, F2	Tsaagan / 2005	B-207207 AMS	Tooth collagen	3000 ± 40 BP	BP 3330–3060
Urt Bulagyn KYR1-22	Khanuy / 2006	B-222532 AMS	Tooth collagen	2780 ± 50 BP	BP 2980–2770
Urt Bulagyn KYR1-22	Khanuy / 2006	B-222533 AMS	Tooth collagen	2790 ± 40 BP	BP 2970–2780
Hort Aznur DS 2, F3	Erkhel / 2006	B-240691 AMS	Charcoal	2690 ± 40 BP	BP 2870–2750

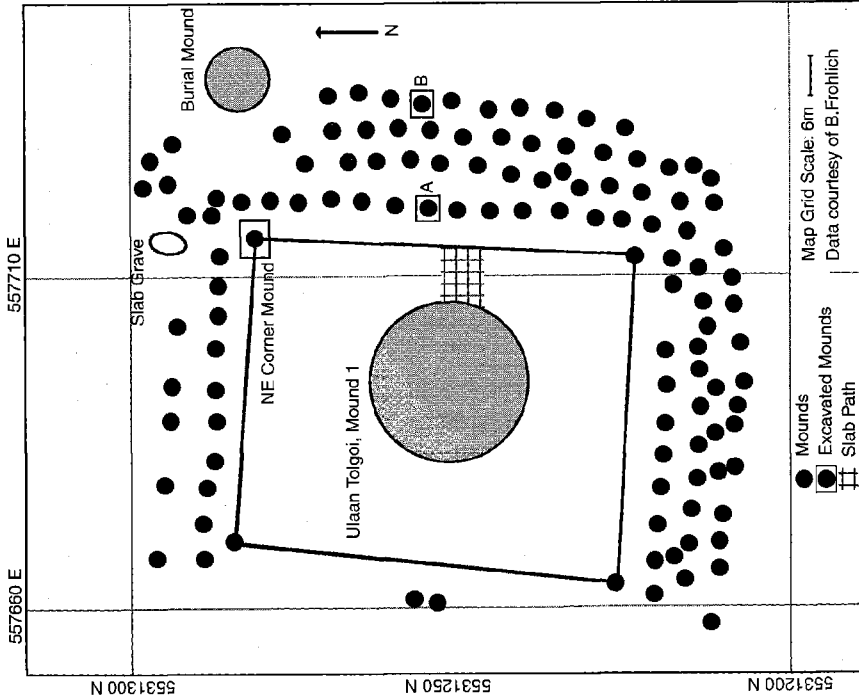


Figure 20.9. Ulaan Tolgoi Mound 1 showing corner pavement and two horse head burial feature excavations (map data courtesy Bruno Frohlich).

ranks along the south fence (Fig. 20.9). We excavated three features: a small stone mound at the northeast corner of the fence that would allow for dating the fence construction, a horse mound (A) in the middle of the first row outside the east fence, and a small mound (B) in the fourth and outer rank of horse mounds. As at Urt Bulagyn, we hoped these samples would provide a chronological key for fence construction, early horse sacrifice, and the latest phase of horse sacrifice activity at the site.

The corner mound did not contain horse remains, and a caprid bone found among the mound's upper tier rocks, which dated to cal. 1900–1720

BP, is considered intrusive. Satellite mound A, situated outside the east fence, produced no artifacts but contained parts of a weathered horse skull and mandible. This horse, which was dated to cal. 3080–2870 BP, had died long before burial and was not a freshly killed sacrifice – such as those encountered for the other burials noted earlier. Mound B produced a complete east-facing horse head, like those found at DS 4, which was dated to cal. 3320–2940 BP. Statistically, both could have been contemporary events.

These studies reveal similarly dated horse rituals associated with hearth rings, deer stones, and human burials in khirigsuur mounds. Jacobson's view that the deer stones may be a "late Bronze Age intrusion into ground ritually sanctified by Bronze Age predecessors" and that the deer stones at Ulaan Tolgoi are a post-khirigsuur "cultural afterthought" (Jacobson-Tepfer 2001: 51) is not supported by our data, although it remains to be seen exactly which dates and specific geographic distributions characterize the deer stone–khirigsuur relationship. While it is certain that these impressive landscape features continued to play a role in the spiritual lives of successive generations, even to the present as herders frequently deposit the remains of deceased animals inside khirigsuur fence lines, our data indicate single events for the ritual associated with the erection of DS 4 and 5 at Ulaan Tolgoi. These events are contemporary with the construction of khirigsuur mound burials.

### Darkhad Valley Finds

SURVEYS AND excavations also have been extended north of Muren into the Darkhad Valley west of Lake Khovsgol. Only a few deer stones had been reported previously for this region, which was not surveyed by Volkov, and its deer stones do not occur in the numbers, large clusters, or large sizes known from regions further south. It is perhaps significant that the present population of the Darkhad Valley, while largely Mongolian, is ethnically and linguistically distinct from the rest of Mongolia because of geographic and physiographic barriers. This region is isolated by a range of high hills separating it from the steppe to the south and the Sayan Mountains that impede access to Russian Tuva to the west and north. Physically, the Darkhad is a large drained pre-glacial lake that formed a sister lake to Lake Khovsgol before it drained in the early Holocene into the Little Yenesei, leaving a flat grassland with marshes and lakes underlain by permafrost. Today the lake bed provides extensive pasture for ethnic Darkhad Mongolian herders,

while its nearby mountain regions support Tuvan-speaking (Dukha) reindeer-herders. Darkhad's geographic situation may explain the lower frequency of deer stones and the smaller number of large khirigsuurs, but the issue remains: is its deer stone complex a pre-cursor, co-eval, or a derivative from the deer stone-khirigsuur complex of the central Mongolian steppe to the south?

Our work here, which is still exploratory, has produced some surprises. In 2004 we excavated a site at Tsatstain Khoshuu that had a single deer stone and no khirigsuurs. The stone was roughly worked and its only deer stone "insignia" was an engraved circular ring near the peaked top of the stone. A few meters away we recovered three horse heads buried in shallow pits. All three heads were oriented to the east, and one had vertebrae and hooves included with it. No artifacts were recovered, but the horse teeth from F1 produced a date of cal. 3160–2920 BP and F2, cal. 3330–3060 BP, making this simple deer stone the earliest known in Khovsgol Aimag.

In 2005 we found two stones bearing deer stone elements at Evdt-2 about 30 kilometers south of Tsatstain Khoshuu. Both had fallen and were partly buried. DS 1 had an engraved circle groove at its top, similar to the Tsatstain Khoshuu stone, and DS 2 had a rudimentary encircling belt groove but no other motifs. This stone was surrounded by a series of oval features, one of which contained an end scraper of dark flint made on a thick prismatic blade. This is the only chipped stone tool recovered from a deer stone or khirigsuur site in the Hovsgol region, and if it is not intrusive, it raises questions about the chronology and persistence of stone tool traditions. Occasionally, micro-blades and chipped lithics have been found at khirigsuur and slab burial sites in the Egin Gol and the Baga Gazaryn Chuluu region in the Gobi, and in these cases the lithics are believed to be intrusive (W. Honeychurch personal communication). A charcoal sample from the stone ring with the scraper at DS 2 has been dated to cal. 3350–3090 BP.

The 2006 season produced other unusual finds from the northern Darkhad. Two rock art sites on the north bank of the Shishged River contained images of the iconic deer stone emblem, one on a huge panel containing hundreds of Bronze and Iron Age naturalistic images of other animals (Fig. 20.10). In addition, several sites were found to have deer stones of exceedingly small size, less than 75 centimeters in length overall, carrying only rudimentary carvings and associated with datable horse skulls and charcoal samples. One of these, Hort Azuur, has a north-south alignment of at least four minimally decorated deer stones.



Figure 20.10. Mongolian Deer image from Avtiin rock art panel, Shishged Gol, northern Khovsgol Aimag.

One of these is carved with an iconic deer image and a spotted leopard, which is a rare element in Khovsgol deer stone art. Charcoal associated with this deer stone has been dated to cal. 2870–2750 BP during the latter part of the deer stone chronology for the Khovsgol region. Further dating and stylistic comparison of the Darkhad deer stones with the classic Mongolian and nearby Sayan and Baikal forms may produce insight into the chronology and relationships of the northern Mongolian deer stone complex. Whether the rudimentary nature of Darkhad deer stone carving is an early stylistic form (as might be suggested from the early dates), reflects geographic marginality, or is simply aberrant needs clarification. Nevertheless, their simple designs, frequent absence of the deer image, and presence of rings, slashes, and necklace pits and belts are characters that resemble elements of both Type 2 and Type 3 deer stones.

### Conclusion

AT THIS point it is too early to offer many conclusions. However, excavations confirm earlier reports that deer stones are not found with human remains and have few artifact associations. Their frequent occurrence with large khirigsuur complexes suggests a ceremonial and ritual

connection with honoring dead leaders. Because two of the most characteristic features of Type 1 Mongolian deer stones are the variability of their belt assemblages and the different size, placement, and organization of deer images, deer stones may represent specific people depicted with their own weapons and body tattoos. In other words, deer stones may be cenotaphs memorializing real warriors, chiefs, or heroes whose souls needed to be sent off to the upper world with the assistance of their personal deer-bird helping spirits.

The presence of a shared ritual involving horse head burials and oval feasting rings, identifiable radiocarbon ages, and linkage between deer stones, khirigsuurs, and rock art demonstrates that all three expressions are part of a single Late Bronze Age culture and ceremonial complex. More work is needed to understand the beliefs and rituals of this time. We have found two deer stones at Ulaan Tolgoi to be ringed by east-facing horse heads packaged with the cervical vertebrae and one or more hooves. These features are placed in a circular arrangement around these deer stones, and each appears to represent single events dating to approximately cal. 2900 BP. Inspection of many other deer stone sites in Khovsgol Aimag and other areas of northern Mongolia reveals surface traces of rock features commonly clustering around deer stone settings. Fist-sized pecking stones found among the horse head features indicate that horse burials occurred at the same time as the carving of the stones. It seems likely that small open hearths represent feasting activities associated with the deer stone dedication ritual. The same concentric pattern of horse mounds and feasting hearths outside khirigsuur fences suggests that similar rituals and ceremonies occurred with the construction of both types of features.

Similar spatial patterning between the architecture of individual khirigsuurs and khirigsuur locations on the east-facing slopes of prominent geographic features like Ulaan Tolgoi suggests the existence of an underlying belief linking individuals and whole communities in a shared set of religious beliefs and cosmology. One of the striking features of this system is the hierarchical geographic replication of social and political structures represented at different social, spatial, and cosmological levels. Horses are sacrificed and buried facing east in small mounds on the east sides of khirigsuurs. Commanding leaders have ostentatious burials in prime valley locations with numerous horses sacrificed, whereas other members of society have poorly appointed graves on the eastern slopes of "sacred hills." Deer stone sites demonstrate a similar although reduced range of variation, seen in size, extent, and quality of

ornamentation, presence or absence of emblematic motifs, and the surrounding arrangement of horses sacrificed and buried around them with their heads pointing east. Both khirigsuurs and deer stones have feasting hearths around the outskirts of the monuments. Widening scales of social and political power may also be indicated by the increasing number and size of mounds, deer stones, and associated horse sacrifices as one proceeds from the more isolated and economically marginal Darkhad region to the relatively more central and fertile Khanuy Valley, whose people likely had greater opportunities for trade, social interaction, and economic prosperity.

Given the variation in deer stone styles and regional variation in those styles, further dating and stylistic study should reveal where deer stones first appeared and how the concept spread and developed into the classic Type 1 Mongolian deer stone. If the Darkhad dates continue to be the earliest of this type, we may presume a northern origin and a subsequent expansion into the classic form along the northern Mongolian steppe. Other deer stone types like the Type 2 Sayan-Tuvan form with independent floating animals, and the Type 3 Altai style with few animals but the presence of circles, slashes, "necklace" lines, and cup marks need to be radiocarbon-dated before their relationship with the Type 1 stones can be determined. As many scholars have noted, roots of Scythian art are present in the form of the Mongolian deer stone image and one suspects that related art forms must have been produced in wood, textile, and felt that have not been preserved. We may also wonder about the eastern ramifications of such a cultural system and whether its influence reached beyond the Amur and Siberia to Korea, the Okhotsk, and the coasts of the North Pacific and Bering Sea, where it has long been suspected that Bronze Age art and shamanistic ceremonialism influenced the development of early Eskimo art and culture (Collins 1951, 1971; Schuster 1951; Schuster and Carpenter 1986; Chard 1958, 1974; Arutunov and Fitzhugh 1988; Fitzhugh 1993, 2002, 2005; Fitzhugh et al. 2005).

How this cultural wave takes shape and develops cannot be determined with current data. However, its rapid movement and the considerable cultural change that occurred would have been facilitated by mobile, technologically advanced, and politically and socially flexible societies we now recognize as characteristic of steppe pastoralists of the late second and early first millennia BCE. Absence of any trace of permanent habitation sites in the form of middens, repeated occupations, or substantial deposits of debris clearly indicates the existence of a nomadic pastoral economy that was even more transient than found

in rural Mongolia today. The absence of grave goods associated with the deer stones and their appearance in the immediately succeeding slab grave complex suggests that a major population movement and cultural transformation occurred immediately following the deer stone period, between cal. 2800 and 2600 BP, when the display of individual wealth began to transform the previous Spartan approach to the after-life. Tsybiktarov (2003: 93) links this with environmental change and a culture and demographic clash between Caucasian khirgissuur and deer stone builders and an expanding biologically Mongoloid-based slab burial culture. Whatever the nature of these changes, a shift toward an even more elaborate style of burial occurred at Pazyryk about the same time. The slab grave was a radical departure from the materially poor but architecturally rich ceremonialism of the deer stone-khirgissuur complex. Likewise, looking farther back in time, the deer stone complex marshaled social and religious values into a cultural system that seems to have had no obvious prototype in Mongolia. The mechanism by which this was accomplished may have been military and economic, but its expression in the deer stone and khirgissuur complex suggests imposition of a hierarchical social and political system whose order is evident in highly organized and codified mortuary ceremony, burial architecture, and public art.

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SOCIAL COMPLEXITY  
IN  
PREHISTORIC EURASIA  
MONUMENTS, METALS, AND MOBILITY



EDITED BY

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