

RESEARCH

RESEARCH AND PRESERVATION OF MONGOLIA'S CULTURAL HERITAGE

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Since 2001 the Smithsonian Institution's multi-disciplinary *American-Mongolian Deer Stone Project* has collaborated with Mongolian and international partners to research archaeological, cultural heritage, and ecological resources across Mongolia. The program is named for Deer Stones, Mongolia's ancient monuments that are among the country's most important archaeological treasures and are among the most spectacular expressions of Bronze Age megalithic art anywhere in the world. These 3,000-year-old carved stone plinths standing one to four meters high and their associated khirigsuur burial complexes are scattered in unprotected sites throughout northern Mongolia. The protection of these Bronze Age monuments, and all of Mongolia's rock art and archaeological sites, from destruction, looting and trafficking is an important issue for the Smithsonian and the Mongolian Ministry of Culture, Sport, and Tourism.

Smithsonian Research Projects

The original project led by Smithsonian archaeologist **William Fitzhugh** has been dedicated to exploring the archaeology of Mongolia's Bronze Age cultures through study of the iconic deer stone sites. In collaboration with the National Museum of Mongolian History, the project excavated deer stone sites in northern Mongolia, discovering that they are often accompanied by sacrificed horse head burials, and showed that they date to a very narrow chronological period (3300-2700 years ago), fully one thousand years older than predicted (Fitzhugh 2009). They are therefore several hundred years earlier than the earliest Scythian sites, like Arzhan, which date to 2600-2700 years ago, suggesting that earliest deer stones originated in northern Mongolia and spread westward into Russia and Kazakhstan, and from there possibly to the Black Sea as part of Saka-Scythian culture. Although the khirigsuur burial complex was thought to be a later development, the Deer Stone Project showed they were contemporaneous with deer stones and part of a single mortuary ritual tradition for burial of many if not most members of this late Bronze Age, horse-based society.

In addition to archaeological excavation, Smithsonian conservator **Harriet (Rae) F. Beaubien** led a project to study, protect, and preserve these monuments in their natural settings, and to capture their pictorial information with 3-D scanning technology (Beaubien et al. 2007). The 3-D scans of 40 deer stones serve also as documentation of their condition, pinpointing not only the surface decorations but also the physical evidence of damage. The 3-D data allow virtual and physical recreation of the deer stones for study and exhibit and will be available virtually through the Smithsonian Web. In all 100 deer stones

were documented with systematic photography and/or 3-D scanning, and condition notes. The conservation project provided hands-on conservation assistance with freshly excavated material from archaeological sites. More recently Tsagaan Turbat, Jamsranjav Bayarsaikhan and others completed a restoration project at the Jargalantyn Am deer stone site in the Khanuy River valley, Arkhangai aimag, in which they excavated and erected many of the fallen stones from this important site (Turbat et al. 2011).

Smithsonian archaeologist **Bruno Frohlich** leads a collaboration with the Institute of Archaeology at the Mongolian Academy of Sciences on several archaeological and anthropological projects. This includes surveying and excavating 3,000 year-old Bronze Age khirigsuur burial mounds in Hovsgol aimag, study of 300 to 400 year old human mummified bodies from the Gobi Desert, and forensic investigations of executed Buddhist monks found in mass burials at Hambiin Ovoo in Ulaanbaatar. The khirigsuur project has documented the GIS locations of thousands of khirigsuurs and excavated multiple mounds that all yielded human remains, redefining these structures as human burials (Frohlich et al. 2009). Forensic analysis of these remains, and those from historical periods, allows some reconstruction of their gender, age, and cause of death. Of nearly 100 khirigsuurs excavated most mounds were found to contain single human interments, with the sex represented by a 50:50 ratio. Children as well as adults are buried in khirigsuurs.

Smithsonian archaeologist **Daniel Rogers** investigates the emergence of urban centers and empires in Mongolia and adjacent regions of Eastern Inner Asia. Initially, the focus of his project, conducted in collaboration with the Institute of Archaeology, has been the archaeological study of the role of settlements and economy in the development of empires in Mongolia, beginning with the Xiongnu empire (200 B.C. to 200 C.E.), and continuing through the rise and fall of several others until the Mongol empire. His recent work explores the human impact on the environment and its relation to political organization. With collaborators at George Mason University, he uses computer agent-based simulations to model the rise and fall of Inner Asian empires (Rogers and Cioffi 2009). Eventually, the team will explore long-term human impacts on the environment and effects of weather events and climate change as they relate to sustainability and resilience of political systems.

Smithsonian botanist **Paula DePriest** conducts field research in the Tsaatan (Dukha) reindeer-herding region of the Darkhad valley in northern Mongolia, exploring the plants, landscapes, and worship structures, such as ovoos and ongons, that comprise the annual nomadic migration of these minority ethnic Tuvans. These territories include sacred mountains, medicinal springs, hunting grounds, plant-gathering places, and traditional, but now abandoned, reindeer seasonal pastures up to 100 km from the current sum centers (DePriest 2010).

By examining and documenting the locations, forms, and artifacts of over 150 worship structures, the project is looking for distinctions in the landscape-related worship traditions of the ethnic groups along Mongolia's border regions.

In 2008 **William Fitzhugh** and **Jamsranjav Bayarsaikhan** expanded their deer stone project to the Mongolian Altai in the vicinity of Khotan Nuur, and since 2011 have collaborated with **Richard Kortum** of East Tennessee State University (ETSU) investigating the broader prehistory and rock art of this spectacular national park region (Lymer et al. in press). Their project, "Rock Art and Archaeology: Investigating Ritual Landscape in the Mongolian Altai," inventories the archaeological and rock art resources of the Bayan Ulgii Biluut Hills petroglyph complex, including surrounding territory of Lake Khoton; to establish links between archaeological and petroglyphic data; and to explore the changing cultural landscape patterns of this region from Paleolithic times to the present, especially as revealed by ritual and ceremonialism. While previous studies have investigated the rock art of Western Mongolia and Inner Asia or the region's culture history—especially of the Russian Altai—little research has been done to integrate or synthesize these two bodies of data into a unified cultural reconstruction. The Biluut Hills contain an estimated 10,000 individual petroglyph images that may have been produced over more than 8,000 years. This exceptionally important site is subject to damage from both modern graffiti and vandalism and is in need of protection and preservation.

One unique aspect of this study is Smithsonian GIS specialist **Daniel Cole** and **Catherine Chen's** detailed mapping of the petroglyphs and archaeological sites. The project is creating digital elevation contour maps of the areas, as well as slope and aspect maps, to assist analyses of petroglyphs, burial mounds, standing stones, bal-bals, and khirigsuurs in relation to each other and to natural features in the landscape (Cole and Chen 2012). Future analyses of data on clustering, distance, and direction may reveal some spatial planning by the ancient artists that ritually aligns petroglyphs and archaeological features with significant geographic elements.

Smithsonian Exhibits and Programming

In the past ten years, the Smithsonian has hosted a number of exhibits and programs that have featured Mongolian cultural heritage. These events served and engaged two audiences, the large ex-patriot Mongolian community in the area and Smithsonian's traditional diverse audiences that are interested in world cultures. In the summer of 2002 the Smithsonian's 36th Annual Folklife Festival *The Silk Road: Connecting Cultures, Creating Trust* featured Mongolian's intangible cultural heritage as part of an exploration of culture along central Asia's ancient trade routes. In the same year the Smithsonian's National Museum of Natural History hosted the University of Pennsylvania Museum's traveling exhibit *Modern Mongolia: Reclaiming Genghis Khan* (Sabloff 2001) that examined

contemporary Mongolia's inheritance of independence and democratic ideals from Chinggis Khaan's Empire and showed how Mongolian's daily life, represented in dress, ornamentation, homes, and furnishings, reflected profound shifts in their government over the 20th Century. More recently William Fitzhugh assisted with development of a traveling exhibit titled *Genghis Khan: The Exhibition*, produced by **Don Lessem** and assisted by **Gankhuyag Natseg**, that has appeared in a number of American cities displaying Mongolian cultural archaeological and historical artifacts to tell the story of Mongolian history. A detailed book titled *Genghis Khan and the Mongol Empire* (Fitzhugh et al. 2013) documents the culture, history, and art of Mongolia from ancient times to the present, with a special focus on the Mongol period.

In addition to these formal exhibits and festivals, the Smithsonian has hosted a family festival in 2006 and three The Smithsonian Associates All-Day Seminars in 2011 and 2012. The festival, *Chinggis Khaan: 800 Years of Mongolian Statehood*, included a scholarly symposium, performances, educational activities, and research and cultural displays. A seminar *The Archaeology of Ritual Landscapes in Mongolia* focused on ancient Mongolia and the archaeological evidence for landscape-based worship traditions. A second seminar in September 2012, *Mythic Mongolia*, conducted in collaboration with the Embassy of Mongolia to celebrate 25 Years of U.S.–Mongolia relations, focused on interesting aspects of Mongolian culture from the importance of horses to the genetic relationships among the Central Asian ethnic groups. A third seminar and tour, *Horse Power*, featured the Smithsonian Conservation Biology Institute's herd of Mongolian wild horses (*takhi*) that is managed as a breeding population for re-introduction to the Mongolian steppe. These programs have built large Washington, DC, audiences with interest in many aspects of Mongolian history and culture.

Preservation Challenges

Since the Smithsonian's programs were initiated in 2001, Mongolia has undergone significant change. Tourism has developed tenfold with corresponding increases in the antiquities and fossils market activities, and Mongolia's economy has grown with significant increases in the cost of living. Also, development of the mining sector has led to increasing assessment of Mongolia's natural and cultural resources as a source of income. All of these societal changes are typically associated with increases in looting of fossil, archaeological, and historical sites and the illegal export and sale of tangible cultural heritage across international borders.

Looting at Ulaan Tolgoi

In early August 2012, Smithsonian researchers discovered that the Deer Stone project's first research at Ulaan Tolgoi, near Erkhel nuur in Hovsgol aimag, had been looted. The site contains the tallest and one of the most elaborately-carved deer stone known in Mongolia. Deer stones and their associated khirigsuur burial mound

sites are among the most visible tangible heritage sites in Mongolia and should constitute a significant priority for protection and conservation as monuments of national and international significance with great scholarly and tourist value. Ulan Tolgoi has a total of five deer stones and a number of round and square khirigsuur mounds with satellite altars and small mounds.

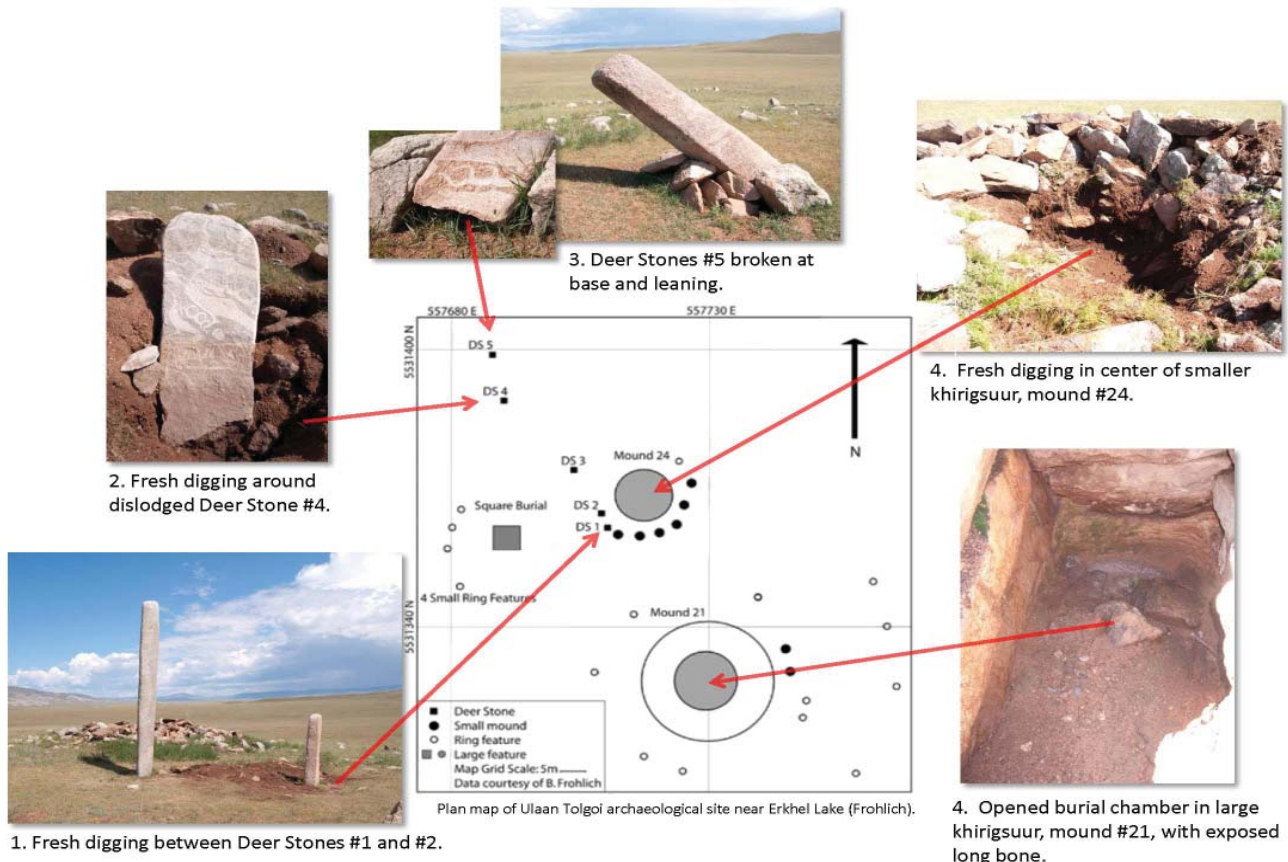
Using a map of the site produced by Bruno Frohlich and numerous photographs from the period that Smithsonian researchers have worked in the site, it was possible to document damage in five specific areas. Between the large deer stone, labeled as Deer Stone (DS) #2 on the map, and a smaller deer stone, DS #1, there was evidence of fresh digging in the soil. DS #4, which had been followed for a number of years after test cleaning in 2004, had been completely dislodged and was laying in a freshly dug pit. A remarkably carved deer stone, DS #5, was broken at its base and leaning on a pile of stones. Also, two khirigsuur mounds were disturbed. Mound #24 had fresh digging in its center, and large mound #21 had its burial chamber completely opened. The chamber was very deep with evidence of large stones set to form a rectangular enclosure. Near one end of the chamber there was an exposed (probably human) bone.

It is impossible to know if items and artifacts were removed from the site. All five deer stones previ-

ously documented were still present at the site, despite DS #4 being totally disinterred from the ground. It is important to monitor this deer stone, as it is now susceptible to theft and trafficking through antiquities markets or international smuggling. For the two damaged khirigsuur mounds, only one had the burial chamber opened. Excavations of khirigsuurs in nearby sites in Hovsgol aimag have only found human remains, and no burial artifacts. It is possible that human remains were removed from the opened chamber since only a single long bone was visible. There is a long history in Asia of trafficking fossil and ancient bones as medicinal cures.

Training in Cultural Heritage Protection

Looting of archaeological and historical cultural heritage sites such as Ulaan Tolgoi, and international trafficking of stolen artifacts and antiquities is countered by enforcement of effective national laws and cooperation with international law enforcement bodies. For a number of years the Smithsonian Institution as partnered with the U.S. Department of State, Cultural Heritage Center, and the Department of Homeland Security, Homeland Security Investigations, in the training of investigators for protection of international cultural heritage. These officials, working with U.S. Customs agents, investigate cultural heritage items



illegally coming into the United States, recovering and repatriating items to their country of origin and arresting and charging those guilty of intentional trafficking of these items. The training focuses on reviewing the national and international conventions and laws that can be applied to protect cultural heritage, understanding how to work with cultural heritage professionals and institutions to identify and document artifacts, and using resources such as ICCOM country “red lists” of endangered materials and art loss registries.

Future Goals

Smithsonian researchers have a long-term commitment to the understanding and protection of Mongolian cultural heritage. Because we recognize the importance of documenting and registering cultural heritage for its protection, we are planning with **Thornton Staples**, a Smithsonian data-banking expert, to develop a geographical information system-referenced registry of our research data from archaeological and historical cultural heritage sites including deer stones, khirigsuur burial mounds, and rock art data. Our goal is to produce a registry that will be compatible with the existing registries of the **Mongolian Cultural Heritage Center**. In addition, we can link Mongolian cultural heritage professionals with U.S. and international institutions and organizations to provide insights and training into the effective protection of tangible cultural heritage. In particular, we can engage our partners in the **U.S. Departments of State and Homeland Security** to offer training workshops focusing on looting, illegal export and sale of tangible cultural heritage. This training, along with completion of a Mongolian tangible culture registry, would be important steps toward a bilateral agreement that would allow the U.S. to effectively identify and repatriate Mongolian cultural heritage and to assist in prosecuting those responsible for its alienation.

The Smithsonian continues its interest in Mongolian cultural heritage through active research, exhibits, and educational outreach programs. By supporting the protection of archaeological and historical heritage in our scholarly research and museum exhibits and encouraging the preservation of intangible cultural heritage such as oral performance and language, traditional music and songs, folk dance, and social practices like rituals and festival events, traditional techniques and knowledge, and traditional craftsmanship in our annual Folklife Festival, the Smithsonian is committed to coordinating with Mongolian institutions and organizations. Over the past decade we have provided training for Mongolian researchers and cultural heritage workers, and we will provide additional training in the registry, conservation, and protection of cultural heritage. However, our more important role may be for the Smithsonian to partner with the **American Center for Mongolian Studies** in education outreach activities that increase the public’s awareness of the importance of Mongolian cultural heritage and the need for its preservation and protection. Only when local communities understand and value the importance of cultural

heritage in their lives and economies will tangible cultural heritage be safeguarded and intangible cultural heritage be celebrated.

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