SECTION B: BASELINE ASSESSMENT
CHAPTER B12: CULTURAL HERITAGE

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12. CULTURAL HERITAGE

12.1 INTRODUCTION

The South Gobi Province of Mongolia is rich in archaeological heritage, including both physical artefacts, ritual sites, places of cultural or historical interest and protected landscapes (‘tangible’ heritage) together with rituals, ceremonies, folklore, music, handicrafts, and traditional knowledge (known as ‘intangible’ heritage). This Chapter of the ESIA describes tangible and intangible cultural heritage at the national level and within the Project Area of Influence.

12.2 DEFINITIONS

“Tangible” heritage comprises physical objects, artefacts and sites with heritage value from the perspective of history, art or science. UNESCO’s World Heritage Convention (Convention Concerning the Protection of the World Cultural and Natural Heritage, 1972) includes the following within this definition:

- **Monuments** – architectural works and structures, works of monumental sculpture and painting, inscriptions, cave dwellings and combinations of these features;
- **Buildings** – groups of separate or connected buildings; and
- **Sites** – physical structures and areas including archaeological sites which are of significance from an historical, aesthetic, ethnomological or anthropological point of view.

The International Finance Corporation (IFC) defines tangible cultural heritage as properties and sites that have archaeological, paleontological, historical, cultural, artistic, and religious values. Unique natural environmental features that embody cultural values are also included within this definition.1

In Mongolia, tangible cultural heritage also includes the following assets:

- **Ovoo** - an ovoo is a) a stone (or sometimes wooden) structure built on historically, culturally or religiously significant places, or b) one particular mountain or hill that is located separately from other mountain ranges2; and
- **Stupa** – is a religious monument made of bricks, mud, wood, and other materials.3

The UNESCO Convention for the Safeguarding of Intangible Cultural Heritage defines “Intangible” heritage as practices, knowledge, skills, objects, cultural spaces, etc. that are associated with specific communities, groups and individuals. UNESCO includes, within this definition, ancestral traditions and living expressions such as oral renditions, performing arts, social practices, rituals, festive events, ceremonies, as well as the historically-developed skills required to produce traditional crafts.

IFC’s Performance Standard 8 (PS8) describes intangible forms of culture as cultural knowledge, innovations and practices of communities embodying traditional lifestyles. EBRD’s Performance Requirement 8 (PR8) also includes the instruments, objects, artefacts and cultural spaces associated therewith that communities, groups and individuals recognize as part of their cultural heritage and which are transferred between generations.4

The Mongolian Academy of Science, Institute of Archaeology (MASIA) is the approved specialised organisation that has extensively counselled the Oyu Tolgoi Project on the issues of cultural heritage compliance and protection.

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2 Worth noting is that, in modern times, ovooos can be used to simply mark boundaries and terrain.
3 These definitions were provided by the Oyu Tolgoi Cultural Heritage Team
12.3 METHODOLOGY

Primary Data Collection

Archaeological investigations and excavations have been completed for all areas of potential physical disturbance (including excavations, levelling works and borrow pits etc), namely: (i) the Oyu Tolgoi Mine Licence Area (ii) the Gunii Hooloi aquifer location and water supply infrastructure (iii) the Temporary Domestic Airport5 (iv) the Permanent Airport6 and (v) the power and infrastructure corridor from the Oyu Tolgoi site to Gashuun Sukhait at the Mongolian-Chinese border. These investigations are summarised in the various Project EIAs as described below (detailed methodologies are provided in the various appendices to the EIA reports):

- Oyu Tolgoi Project Environmental Impact Assessment, Volume I Report of Oyu Tolgoi to Gashuun Sukhait Road and Infrastructure Corridor, Environmental Protection Plan and Environmental Monitoring Plan, Eco-Trade LLC, 2004; Appendix G: Archaeology;
- Oyu Tolgoi Project Environmental Impact Assessment Vol III Mine and Processing, Eco-Trade LLC, UB 2006; Appendix 24.8 The Report for the Archaeological Excavation Conducted on the Licensed Field of the "Ivanhoe Mines Mongolia INCII", 3 September 2002;
- Oyu Tolgoi Supplementary Environmental Impact Assessment Oyu Tolgoi to Gashuun Sukhait Road and Infrastructure Corridor, Appendix 1. Report for Archaeological Survey Work Made Along the Amended Route Between Oyu Tolgoi and Gashuun Sukhait, Institute of Archaeology, MAS, 2006;
- Pipeline Realignment Archaeological Report prepared by the Institute of Archaeology, Mongolian Academy of Sciences 2006; and

Cultural Heritage Programme (CHP) Phase I

From July 2010 to March 2011, a major aimag-wide cultural heritage study was undertaken by the Mongolian International Heritage Team (MIHT), appointed to Oyu Tolgoi. MIHT comprises the consultancy Sustainability East Asia, the University of Arizona, MASIA, the US Statistical Research Inc and other Mongolian anthropologists, archaeologists and palaeontologists.

The main aims of Phase I were:

- to prepare an inventory of cultural heritage resources within Omnogovi aimag;
- to understand potential changes to these resources through the Oyu Tolgoi Project;
- to conduct a risk assessment of threats and risks to these resources; and
- to prepare documentation and literature on the resources for the benefit of the Mongolian people.

Field work for Phase I was conducted in Khanbogd, Manlai, Bayan-Ovoo and Dalanzadgad soums involving:

- Literature review;
- Gap analysis;
- Field-based baseline surveys and assessments;
- Community and stakeholder consultations;
- Legal framework assessment;

5 Oyu Airport
6 Khanbubmat Airport
- CH inventory and mapping; and
- Risk assessment and determination of acceptable cultural heritage change.

The Phase I report provides a baseline compendium of archaeological, paleontological, and other items of cultural significance in Omnogovi.\(^7\) CHP Phase 1 included a study of cultural heritage within the Oyu Tolgoi Project Area of Influence, including Khanbogd, Bayan-ovoo, and Manlai soums. Recent studies performed under the CHP Phase I involved:

- archaeological investigations in August 2010 following changes in the proposed road alignment between Oyu Tolgoi and Gashuun Sukhait;
- an archaeological survey at the Oyu Tolgoi Airport site; and
- surveys of traditional sacred sites and intangible resources in communities within the Oyu Tolgoi Area of Influence.

Cultural anthropologists working on the CHP also conducted field studies in the South Gobi where they interviewed members of the community and observed and documented ritual and ceremonial activities, including the Naadam festival. From November 11-20, 2010, MASIA anthropologists met with stakeholders in the western soums of the aimag\(^6\) and identified 10 landscape features of cultural significance. The cultural anthropologists also documented traditional crafts and skills such as silver-smithing and the making of felt clothing.

In March 2011, the CHP team (MIHT) conducted an archaeological Risk Assessment with key stakeholders in Khanbogd soum. The Risk Assessment was designed to identify community concerns in relation to threats to cultural heritage.

MIHT has also appointed a Cultural Heritage Advisory Board; this board, comprising 15 members, includes residents of Khanbogd soum, elders, cultural heritage advisors, ministry representatives and non-government groups. The Board acts as a conduit for relaying community concerns in relation to cultural heritage.

A second Phase of the CHP (Phase II) will include preparation of a set of GIS layers showing the location of tangible resources together with areas which have potential archaeological interest. In addition, Phase II will result in the development of detailed guidelines and checklists for Chance Finds\(^3\), archaeological monitoring, documentation and reporting i.e. a more detailed action plan for Oyu Tolgoi.

The CHP will be presented as a “living” document. It will change over the life of the Project as agencies and stakeholders test various scenarios to define, manage, and treat cultural heritage. A final report on the CHP will become the baseline cultural heritage document for the Oyu Tolgoi Project, which will continue to evolve as cultural heritage programmes and applicable agencies in Mongolia mature.

**Stakeholder Consultations as part of CHP Phase I**

One of the main objectives of the CHP is to reflect the views of local residents on the importance of cultural heritage and the best means to protect it. Upon commencement of the Programme, members of the MIHT team met with local residents to collect their opinions about the impact of Oyu Tolgoi and other mining projects on the tangible and intangible cultural heritage of Ömnögovi aimag. Three separate meetings were organised with local residents of Khanbogd, Manlai, Bayan-Ovoo and Dalanzadgad soums during the first six months of CHP Phase 1. Local involvement, however, was not solely restricted to the organised meetings. The team also met with local residents as part of their field surveys and research.

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\(^7\) This report is also referred to as the CHP Phase 1 Report in this Chapter. Oyu Tolgoi: Protecting the Past, Preserving the Present: Report on Phase 1 Activities of the Oyu Tolgoi Cultural Heritage Programme (CHP) Design for Ömnögovi Aimag. Prepared by Sustainability East Asia LLC and the Institute of Archaeology, Mongolian Academy of Sciences (February 2011).

\(^6\) Terms of Reference for the Oyu Tolgoi CHP identifies Khanbogd, Bayan-Ovoo, Manlai, Dalanzadgad soums as the direct impact zone, and stipulates that Omnogovi aimag as a whole is also part of the CHP scope.

\(^9\) A Chance Finds Procedure has been developed for Oyu Tolgoi and has been enforced for any construction activities associated with the Project (see Chapter D13).
One of the most important series of meetings with stakeholders was held in conjunction with the specialists meeting of the MIHT, which was held in September 2010. An Advisory Board for the CHP was subsequently established that was composed of the major stakeholders of cultural heritage in Ömnögovi aimag. The Advisory Board’s first meeting was held in November 2010. This and all other stakeholder meetings are summarised below.

<table>
<thead>
<tr>
<th>No</th>
<th>Meeting topic</th>
<th>Area</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>“What is cultural heritage”, “What should we do to preserve and transmit to future generations” meeting</td>
<td>The governors and citizens of 4 baghs of Khanbogd soum – Bayan, Nomgon, Jawkhlan and Gaviluu</td>
<td>August 1-4, 2010</td>
</tr>
<tr>
<td>2</td>
<td>Meeting with local citizens who are interested in the research work of local historical and cultural properties</td>
<td>Khanbogd, Dalanzadgad, Bayan-Ovoo, Manlai soums</td>
<td>August 18-27, 2010</td>
</tr>
<tr>
<td>3</td>
<td>Meeting of MIHT</td>
<td>Dalanzadgad, Khanbogd, Bayan-Ovoo, Manlai</td>
<td>September 2010</td>
</tr>
</tbody>
</table>

Visits were also undertaken to the local organisations related to the preservation of cultural heritage, including the Museum of Dalanzadgad, the Central Library of Ömnögovi aimag, the “Galba museum” of Khanbogd soum, as well as the cultural centre, library, and museum of Manlai soum.

**Ethnographic Assessment**

An Ethnographic Assessment has also been conducted for the Oyu Tolgoi Project to identify and record sites of spiritual significance in the areas of the Oyu Tolgoi to Gashuun Sukhait road, power towers, water pipeline, and the new airport. This Assessment was carried out by the professional institution that specialises in Mongolian ethnographic studies, namely the Institute of History (Department of Ethnology and Anthropology) of Mongolian Academy of Sciences. The findings of this study are presented in the “Report on Ethnographic Assessment or Sacred and Inherited Places around Oyu Tolgoi Project Construction Objects (Oyu Tolgoi to Gashuun Sukhait road, power towers, water pipeline and new airport)”, by Ch. Sampildondov and Lh. Purevjav, Ulaanbaatar 2011. Secondary Data Sources.

A range of secondary sources have also been used, including materials produced by UNESCO10 and the National Museum of Mongolia, as well as research studies available in the public domain, including by UNESCO and the Japan Mongolian Joint Paleontological Expedition (JMJPE).11 Information on intangible heritage has been collected through the following four studies:

- The Social, Economic and Environmental Baseline Survey, Prepared by Centre for Policy Research and Population Training & Research Centre, Mongolian National University, 2008;
- Protecting the Past, Preserving the Present: Report on Phase 1 Activities of the Oyu Tolgoi Cultural Heritage Programme (CHP) Design for Ömnögovi Aimag. Prepared by Sustainbility East Asia LLC and the Institute of Archaeology, Mongolian Academy of Sciences (February 2011)12; detailed ethnographic surveys, from Phase I of the CHP, are still under completion and will contribute further to the knowledge of intangible cultural heritage.

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12 Specifically sections of the Report pertaining to intangible resources.
12.4 LEGAL & POLICY FRAMEWORK

12.4.1 Mongolian Laws

The preservation of cultural heritage in Mongolia is prescribed under the Law of Mongolia, Protection of Cultural Heritage of June 2001 (as amended in 2004). This law regulates the protection of physical and intellectual items of historical, cultural, and scientific significance, which may represent any particular period, regardless of ownership.

Items of cultural significance include archaeological findings, sites, tombs, rock carvings, and the remnants of mining, processing, or industry. The law also differentiates ‘tangible’ and ‘intangible’ assets whereby tangible assets are fixed structures such as buildings and relics. Intangible cultural heritage varies from forms of singing, folk knowledge and symbolism, traditional folk dance and customs to ceremonies and the sites where they are held. Heritage is classified as “common”, “valuable” or “unique and valuable”, and the protection of each of these types is identified at the national, regional (aimag), and local (soum) level.

Cultural heritage value is determined through an approval process undertaken by the Ministry of Education, Culture and Sciences. The law establishes the principle that archaeological and cultural heritage items should be preserved within their natural place wherever possible. The law also allows the government to establish protection zones surrounding areas of identified cultural or historical value. Activities of potential disturbance within a protection zone are prohibited. Section 17 of the Law requires that an authorised organisation undertake archaeological exploration and survey prior to commencing mineral exploration or mining development. These activities cannot proceed without a permit from the authorised archaeological organisation. In the event that items of cultural or heritage value are discovered, and may be at risk from mining or exploration, the law requires immediate notification to the soum Governor, and, if possible, protection of the site. The soum Governor is responsible for excavated sites following the completion of research. The land and subsoil where items of historical, scientific, and cultural value are located fall within State protection and any archaeological findings become State property. The law prohibits the excavation, relocation, or destruction of immovable items of cultural or heritage value without the explicit authorisation issued by the Ministry for Education, Culture and Sciences.

12.4.2 International Standards and Conventions

Convention Concerning the Protection of the World Cultural and Natural Heritage (1975) (Acceded to by Mongolia on 02.02.1990)

This Convention sets out the duties of Parties to the Convention in identifying potential sites of World Culture and Natural Heritage. By signing the Convention, each country pledges to conserve not only the World Heritage sites situated on its territory, but also to protect its national heritage. Signatory Parties are encouraged to integrate the protection of the cultural and natural heritage into regional planning programmes, set up staff and services at their sites, undertake scientific and technical conservation research and adopt measures which give this heritage a function in the day-to-day life of the community.

Convention on the Safeguarding of Intangible Cultural Heritage (Entry into force 20 April 2006; ratified by Mongolia 29.6.2005)

The purposes of this Convention are to safeguard and ensure respect for intangible cultural heritage and to raise awareness at the local, national and international levels of the importance of intangible cultural heritage. Intangible cultural heritage includes practices, representations, expressions, knowledge and skills as well as the instruments, objects, artefacts and cultural spaces that communities, groups and, in some cases, individuals recognise as part of their cultural heritage.


14 Whilst these definitions are in place under Mongolian Law, much of the country’s cultural heritage has yet to be classified; moreover, ‘local’ definitions of significance tend to be used in the absence of official categorisation.
Each Party to the Convention agrees to safeguard intangible cultural heritage present in its territory by:

- identifying the various elements of intangible cultural heritage present in its territory and designating a competent body responsible for its safeguard; and
- adopting appropriate legal, financial and other measures to manage, document and grant access to intangible cultural heritage.

**IFC Performance Standards**

The International Finance Corporation (IFC) defines its guidance on archaeological heritage through Performance Standard 8 - Cultural Heritage, the objectives of which are to protect cultural heritage from the adverse impacts of project activities, to support its preservation, and to promote the equitable sharing of benefits from the use of cultural heritage in business activities. Project siting and design will avoid significant damage to cultural heritage. Projects will consult with affected communities who use or have used, within living memory, the cultural heritage for long standing cultural purposes, and applicable government agencies to identify the cultural heritage items of importance and to incorporate views into the decision-making process.

For mining projects, the design and implementation of an appropriate Chance Finds procedure is required to avoid and prevent any significant damage to cultural heritage. Furthermore, any property, site or object that can be considered as ‘critical cultural heritage’ – i.e. the internationally recognised heritage and legally protected areas – shall not be significantly altered, damaged, or removed.

**EBRD Performance Requirements**

EBRD’s policy on tangible and intangible cultural heritage is set out in Performance Requirement 8 (PR8). The objectives of PR 8 are:

- To support the conservation of cultural heritage in the context of EBRD-financed projects;
- To protect cultural heritage from adverse impacts of project activities;
- To promote the equitable sharing of benefits from the use of cultural heritage; and
- To promote the awareness of, and appreciation of, cultural heritage where possible.

## 12.5 BASELINE CONDITIONS: NATIONAL SETTING

### 12.5.1 Critical National Heritage

Mongolia hosts two heritage sites of critical international importance that have been listed on the UNESCO World Heritage List\(^\text{15}\), namely (i) cultural heritage – Orkhon Valley Cultural Landscape; and (ii) natural heritage – Uvs Nuur Basin. Both sites are situated outside the Oyu Tolgoi Project Area of Influence in the central and north-western parts of the country.

The 121,967-ha Orkhon Valley Cultural Landscape is located in central region of the country, 360 km southwest of Ulaanbaatar, and is part of Ovorkhangai aimag and Arkhangai aimag.\(^\text{16}\) The Landscape spans an extensive area of pastureland on both banks of the Orkhon River and comprises numerous archaeological relics dating back to the 6th century. The site also includes Kharkorum, the 13th- and 14th-century capital of Chinggis Khan’s Empire.

The Uvs Nuur Basin of 1,068,853 ha (258,620 ha in the Russian Federation and 810,233 ha in Mongolia) is the northernmost of the enclosed basins of Central Asia that serves as a natural haven for migrating birds, waterfowl and seabirds.\(^\text{17}\) This transboundary site encompasses Uvs aimag, Zavkhan aimag, and Khuvsgul aimag in the north-western part of the country.


12.5.2 Tangible Heritage

In addition to the abovementioned sites, Mongolia has a wealth of natural and tangible cultural heritage resources. The National Museum of Mongolia organises numerous archaeological and cultural field expeditions to study, document, preserve and protect Mongolian heritage.¹⁸

12.5.3 Intangible Heritage

Literature

The Mongolian nation has a strong tradition of oral and written literature. These comprise legends, proverbs, sayings, moral teachings, riddles, verses, poetry, epics and odes and are passed down through the generations. Since these are in oral form, all would be narrated or sung to the accompaniment of instruments such as the Morin khuur (Horse-head fiddle – see below).

Morin Khuur Music

UNESCO has been assisting Mongolia with the audiovisual documentation of the country’s intangible heritage. Traditional Morin Khuur music, an integral part of rituals, ceremonies and everyday activities in the nomadic Mongolian society, has featured in Mongolian culture for over seven centuries, and in 2003 was proclaimed by UNESCO a Masterpiece of the Oral and Intangible Heritage of Humanity. The Morin Khuur is a two-stringed instrument with an ornamental horse-head on its upper end. Due to the decline in Morin Khuur practice, a project was launched by the Mongolian Commission for UNESCO, the Ministry of Culture, and the Centre of Intangible Heritage to preserve the tradition (2005-2007). As part of this project, training courses were organised for 300 players and students in various aimags including Omnogovi.

Khöömei Singing

The Mongolian traditional art of Khöömei was inscribed on the UNESCO Representative List of the Intangible Cultural Heritage of Humanity in 2010. Khöömei is a form of overtone singing that originates in the Altai Mountains of western Mongolia (see Figure 12.1). Khöömei is typically performed by Mongolian nomads at social occasions, ranging from state ceremonies to festive household events.

Figure 12.1: Traditional Khöömei Singer

Source: S. Yundenbat, 2009. UNESCO¹⁹

¹⁸ http://www.nationalmuseum.mn/
Urtiiin Duu Singing

Urtiiin duu is one of the most ancient genres of Mongolian musical art, a professional classical art that dates back to the 13th Century. Urtiiin duu involves the performance of complicated, drawn-out vocal sounds. It is representative of vast, wide spaces and demands great skill and talent from the singers in their breathing abilities and guttural singing techniques. Urtiiin Duu was graded a Masterpiece of the Oral and Intangible Heritage of Humanity by UNESCO in 2005.

National Costumes

Mongolian national dress is closely tied to the Mongolian people’s way of life. In summer, Mongolians wear a light coat or frock, the ‘Terlek’, in autumn and winter a padded coat, the ‘Khovontei Deel’, or a lambskin coat, the ‘Khurgen Dotortoi Deel’, and a sheepskin dress in winter. The age of the wearer is also reflected in the dress style. As a rule, the costumes of elderly people are modest and plain, whilst young people prefer colourful and stylish garments. Female dresses show differences between the attire of girls and married women, and costumes of the latter are decorated and adorned more exquisitely. The distinctiveness of ethnic groups is also reflected in their clothes.

Naadam, Mongolian Traditional Festival

Naadam is a national celebration from 11 to 13 July across the country and is focused on three traditional competitive games: horseracing, wrestling and archery. The rituals and customs of Naadam accentuate respect for nature and the environment. Oral forms of expression, performing arts, national cuisine and craftsmanship, Khöömii singing, Bie biyelgee dance and Morin khuur fiddle are the typical highlights of Naadam celebrations. Mongolians follow special rituals and customs during the festival, such as wearing unique costumes and using distinctive gear and sporting items. The main three types of sports are inextricably linked with the ancient lifestyles and living conditions of the Mongols.

Spiritual Practices

In modern Mongolia, the predominant religion is the Yellow Sect of Tibetan Buddhism. Paralleling the Stalinist period in the Soviet Union, communists held massive religious purges in the 1930s. In modern times, Buddhism is experiencing resurgence and young people tend to exhibit an interest in learning Buddhist practices from their elders. Approximately 5% of the total Mongolian population are Sunni Muslims, mainly ethnic Kazakhs in the western region of the country. There may also be as many as several thousand Mongolian Christians today which was to some extent spurred by the arrival of Western missionaries in Mongolia after 1990.

Shamans, both male and female, were among the traditional clergy of the Mongols up to the 16th Century. In shamanism, souls or spirits are believed to be detachable from the body both during and after life. As a result of persecutions in the 16th Century, shamans disappeared from many areas of Mongolia. Despite that, shamanism remains the dominant religion amongst the western Buriads, Daurs, Old Barga and Darkhad and is also strong amongst the Khorii Buriads.

12.6 OMNOGOVI Aimag

12.6.1 Tangible Heritage

Since the 1930s, archaeological studies in the South Gobi have identified numerous sites and artefacts spanning from the Bronze Age to the Middle Palaeolithic (Olsen, 1995). Omnogovi aimag government adopted the list of historically and culturally-significant objects for the first time in 1978. Three historically and culturally-significant places are now under State (national) protection and eight are safeguarded by the aimag administration. Within the aimag, the following sites are under state protection:

- a stone weapon preparation site in the valley of Tsakhiurt, Bulgan soum;
- rock paintings on Bichigt rocks at Shuulen;
- Doloon Uulyn Uvur in Nomgon soum; and
- three Buddhist monasteries of Gobi origin in Khanbogd soum.

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In 2007, the Centre for Cultural Heritage (Omnogovi aimag) compiled a list titled ‘Historically and Culturally Significant Places in Omnogovi Aimag’, including the ruins of a Buddhist monastery, the remains of ancient and medieval settlement, rock paintings and inscriptions, and dinosaur fossils. Heritage currently registered by the aimag includes those sites listed in 2007, intangible heritage, and a total of 3,832 items from local soum museums.\(^{21}\)

Researchers affiliated with the Joint Mongolian-Soviet Paleontological Expedition during the 1970s and 1980s, and the Joint Mongolia-Japan Paleontological Expedition which began its research in 1990, have discovered and analysed numerous fossil sites within the aimag, some of which have identified new genera and species of dinosaurs.

The Oyu Tolgoi CHP Phase I report documents 146 sites of archaeological interest within Omnogovi aimag. However, many of these are located in the east region of Gobi Altai mountain range, outside the Project Area of Influence. Several sites will be placed under formal protection by the soum or province as a direct result of the CHP baseline studies (for further details on mitigation, see Chapter C11: Cultural Heritage Impact Assessment). These include Bronze Age sites near Khan mountain in Dalanzadgad soum, khirgisuur complexes (also dating back to the Bronze age) at the south-east of the Gurvansaikhan mountain range, rock art of Uizen and Takhilt in Sevrei soum and rock art near Takhilt of Noyon soum. Numerous petroglyphs have also been discovered throughout the Gobi. The literature review undertaken by MIHT palaeontologists indicates that there are several significant fossil localities within the aimag.

CHP Phase I studies have included the assessment of significance of various sites; this is still work in progress and is being undertaken by qualified ethnographic experts.

**Living Tangible Heritage**

Traditional sacred places in Omnogovi aimag were recorded in the course of CHP Phase 1 studies, resulting in the compilation of a list of localities and parts of the landscape that have spiritual or sacred value to local residents. Among the sacred places recorded, mountains represent a predominant feature of importance to the nomadic culture, together with springs and other water sources. Other sacred places include archaeological and built environments, such as ovoos and cairns. Further details on the sacred sites found in Omnogovi aimag are presented in the CHP Phase I Report.

**Buddhist worship sites**

According to data from the Omnogovi Aimag Statistical Department, 44 Buddhist monasteries and temples were reported to have been in use in the aimag before they were destroyed in the wake of the communist revolution of 1921-1924. To date, only five of these have been restored and one temple has been rebuilt (see Table 12.2).

Currently, Buddhist monasteries and temples operate in the Manlai, Nomgon, Khanbogd, Tsogttsetsii and Dalanzadgad soums. The Sangiin Dalai Monastery has been restored and, although not operating, accommodates Nomgon soum’s Ethnographical Museum.

Restoration of the monasteries and temples was initiated by the Omnogovi local councils, supported by cultural foundations and organisations, donors and Parliamentary Members. Tsogttsetsii soum residents have used their own resources to build a new temple in cooperation with soum-born residents living in Ulaanbaatar. 40 sutras and religious manuscripts that had been kept in the archive of Khanbogd soum Administration Office were eventually returned to the Demchig monastery.

**Table 12.2: Buddhist Monasteries and Temples, Omnogovi**

<table>
<thead>
<tr>
<th>Location/ Soums</th>
<th>Names of Buddhist temples and monasteries</th>
<th>Year established</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgan</td>
<td>Meditation Centre of Buddhists’ Association</td>
<td>2001</td>
</tr>
<tr>
<td>Manlai</td>
<td>Meditation Centre</td>
<td>2001</td>
</tr>
<tr>
<td>Nomgon</td>
<td>Sangiin Dalai’ Temple</td>
<td>1760 (reconstructed 2007-2010)</td>
</tr>
<tr>
<td>Khanbogd soum centre</td>
<td>Badamdemchognai Temple</td>
<td>1994</td>
</tr>
<tr>
<td>Khanbogd mountain</td>
<td>“Demchig” Monastery (including the Avid Realm of)</td>
<td>1824 (reconstructed 2008)</td>
</tr>
</tbody>
</table>

### Ovoos and Stupas

The **ovoos** (also known as ‘oboos’) structures are usually dedicated to mark natural elements that have spiritual significance, such as mountain spirits, sacred trees, lakes, or springs. **Ovoos** form many functions within the community from their use as religious worship sites to sites for prayer and guidance during natural disasters (*dzud* and drought).

Historically and in modern times, ovoos also served as boundary markings used for the purposes of landscape mapping. Examples of these are shown in a research study by Kamimura Akira that analysed old Mongolian manuscript maps dating back to the 19th century. The study mentions that “**Likely as a result of conflicts between those serving the relay services and herdsmen belonging to the banner, oboos were constructed to separate these distinctly as shown on the map**.”

Some of the ovoos structures (e.g. cairns) continue to represent territorial markings and are not always or solely representative of spiritual worship sites. However, it is assumed by Oyu Tolgoi and others that all ovoos are sacred unless it has been verified by the community that they are commonplace structures.

Examples of the reconstructed or newly-built ovoos in Omnogovi aimag include the Horse Honor Ovoo in Tsogttsetsii soum, as well as the reconstructed ovoos at Tsagaan, Tseltiin Uul, Lun Khairkhan, and Enger Tsagaan. Most **baghs** in Manlai soum have their own **ovoos**, including the Jargalant bagh, where the Horse Honor Manlai ovoo was restored, and Uguumur bagh, where both the Great Ulzii and Small Ulzii ovoo were restored. Uguumur bagh conducts a ritual to Khanbogd once every two years and has restored a Wrestling ovoo.

**Stupas** also serve as a symbol of community identity and are used by individuals for spiritual reasons and to mark important events. In 2007, **Divaaajinii Avidiin Oron** (the ‘Avid Realm of Heaven’) stupa was built at the Demchig monastery ruins with funding provided by Oyu Tolgoi (see **Chapter C11: Cultural Heritage Impact Assessment**). Figure 12.2 below shows an ovoo and Figure 12.3 illustrates a stupa.

Further details on the 'living' tangible heritage (i.e. sites, natural landscapes and spaces of spiritual significance) identified in the Oyu Tolgoi Project Area of Influence are provided in section 12.7.11 “Sacred Landscapes and Living Heritage”, based on findings of the Ethnographic Assessment that has been conducted for Oyu Tolgoi by the Institute of History, Mongolian Academy of Sciences.

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<table>
<thead>
<tr>
<th>Location/ Soums</th>
<th>Names of Buddhist temples and monasteries</th>
<th>Year established</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tsogttsetsii</td>
<td>Heaven stupa)</td>
<td></td>
</tr>
<tr>
<td>Dalanzadgad</td>
<td>Promoting Compassion and Peace Temple</td>
<td>2002</td>
</tr>
<tr>
<td></td>
<td>Mantra Temple</td>
<td></td>
</tr>
</tbody>
</table>

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22 *‘dzud’* is a term referring to an extreme winter period which, in Mongolia, have been known to result in widespread death of livestock.

23 A Preliminary Analysis of Old Mongolian Manuscript Maps: Towards An Understanding of the Mongols’ Perception of the Landscape. The study by Kamimura Akira. The maps studied range from 1864 to 1936 and included maps of a **soum**, a watch-post and the entire country. The maps studied showed various information, including administrative offices, landscape features, temples, infrastructure (roads, relay stations, watch-posts), as well as **oboos** (boundary marks).

Figure 12.2: “Khoroot Ovoo” located along the Oyu Tolgoi to Gashuun Sukhait Road (property of a local herder)

Figure 12.3: “Nar Khajid” Stupa Site North West of Demchig Monastery (built in 2010)

Table 12.3 describes ovoo and stupa sites in the Project Area of Influence and includes the individuals and other interested parties together with the rituals associated with these sites.
<table>
<thead>
<tr>
<th>Ovoo and Stupa names</th>
<th>Location (km from soum centre)</th>
<th>Date built or reconstructed</th>
<th>Ritual frequency</th>
<th>Individual and organisation initiated</th>
<th>Individuals or organisations funding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Manlai</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manlai ovoo (horse honoured)</td>
<td>8</td>
<td>Informally constructed</td>
<td>Annual, between 1st and 8th of June</td>
<td>Citizens of Jargalant bagh</td>
<td>Gendensuren, Dalai bagh herders</td>
</tr>
<tr>
<td>Khanbogd</td>
<td>70</td>
<td>Reconstructed in 1990</td>
<td>Once every two years</td>
<td>Citizens of Uguumur bagh</td>
<td>Uguumur bagh’s locals</td>
</tr>
<tr>
<td>Wrestler’s ovoo</td>
<td>9</td>
<td>Legendary ovoo</td>
<td>Four times per : White Lunar festival, Naddam, Army Day or recruiting to the army ceremony.</td>
<td>Manlai Governor Office</td>
<td>Manlai soum’s men</td>
</tr>
<tr>
<td><strong>Tsogttsetsii</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tsagaan ovoo</td>
<td>2</td>
<td>Informally constructed</td>
<td>Annual</td>
<td>Soum Governor office and citizens of Tsagaan ovoo bagh</td>
<td>Donations from bagh citizens</td>
</tr>
<tr>
<td>Tsetsiin Mountain</td>
<td>30</td>
<td>Informally constructed</td>
<td>Annual</td>
<td>Soum Governor office and Siirst bagh</td>
<td>Local people</td>
</tr>
<tr>
<td>Lun Khairkhan</td>
<td>45</td>
<td>Informally constructed</td>
<td>Annual</td>
<td>Soum Governor office and Bilgekh bagh</td>
<td>Soum’s business entities and local people</td>
</tr>
<tr>
<td>Inner White ovoo</td>
<td>30</td>
<td>Informally constructed</td>
<td>Every 3-4 years</td>
<td>Tsagaankhuu, children of Darisuren</td>
<td>These people’s donation</td>
</tr>
<tr>
<td>(Enger Tsagaan ovoo)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Horse Honor ovoo</td>
<td>9</td>
<td>2002</td>
<td>Annual</td>
<td>Soum, aimag and Local Council in UB</td>
<td>N’Ajnai’ Corporation and former Parliament member Ouynbaatar</td>
</tr>
<tr>
<td><strong>Khanbogd</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stupa Janchivchoden</td>
<td>Soum Centre</td>
<td>1999</td>
<td>Annual</td>
<td>S. Otgon</td>
<td>S. Otgon and local people</td>
</tr>
<tr>
<td>Ritual of Khanbogd</td>
<td>30</td>
<td>1992</td>
<td>Annual</td>
<td>Soum Governor office</td>
<td>Soum Governor office</td>
</tr>
<tr>
<td>Khairkhan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stupa of Avid Realm</td>
<td>13</td>
<td>2007</td>
<td>Annual</td>
<td>Soum Governor office</td>
<td>Ivanhoe Mines</td>
</tr>
<tr>
<td>of Heaven</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Museums**

Thirteen soums in Omnogovi aimag have museums. Soum museum collections consist mainly of ethnographic objects such as saddles, leather boxes, tobacco boxes and other livestock-related objects; religious objects such as Buddhist deities and ritual instruments; paleontological objects, including different types of stones and fossilised dinosaur eggs. In addition, material from the socialist period, including honour certificates, medals, photographs, and volumes written by Marx and Lenin, have been added during the last decade. At present, the protection of cultural heritage is regulated by the State administration and local involvement is limited.
12.6.2 Intangible Heritage

**Rituals and Worship**

Buddhist monasteries and temples within the aimag are used to host a number of chant and meditation readings, such as Tsogchin chanting (a form of daily chant), Gombo sutra, meditation on the 25th of every lunar calendar month, and the 15-day meditation on the Lunar new year.

Ovoor rituals also represent a very important part of the traditional spiritual practice that links local communities to the land. They have also been identified during the consultation programme as at threat from development and behavioural changes (through consultation associated with CHP I). Ovoor rituals were forbidden during the socialist period but, have now been revived. In Khanbogd soum, through an initiative by the Governor’s office, a ceremony was conducted to honour Khanbogd Khairkhan Mountain in 1992 and, since then, rituals have been conducted annually.

**Nadaam Festival and Oyu Tolgoi**

Since 2005, Oyu Tolgoi has provided support for and participated in a one-day Naadam festival celebration held 27 km from the Khanbogd soum Centre. As described above, Naadam is a national celebration observed annually from 11 to 13 July across the country and is focused on three traditional competitive games: horseracing, wrestling and archery. The number of participants at the 2010 Nadaam festival totalled 2,500 representing diverse communities. The formal celebration included wrestling, archery, and the Mongolian sport called ‘ankle-bone shooting’ which involves flinging small bullets at a number of ankle-bones arranged in a row.

12.7 CULTURAL HERITAGE OF THE OYU TOLGOI PROJECT AREA OF INFLUENCE

12.7.1 Determining the Value of Tangible Cultural Heritage Finds

Mongolia does not currently have any specific standards or guidance for evaluating the importance of physical cultural heritage sites. The value attributed to the sites found in the Oyu Tolgoi Project Area of Influence has, therefore, been determined through the professional judgement and expert knowledge of MASIA and MIHT Oyu Tolgoi Cultural Heritage Programme (Phase I) includes an assessment of the significance of finds within the Oyu Tolgoi Project Area of Influence. The sub-sections below describe the tangible and intangible heritage of the Oyu Tolgoi Project Area of Influence together with the value of the resources as described above.

12.7.2 Oyu Tolgoi Mine Licence Area

In 1998, a Mongolian geologist undertaking exploration work at Oyu Tolgoi unearthed Palaeolithic and Bronze Age stone tools. Upon their discovery, these artefacts were handed over to MASIA for study and preservation. Subsequent investigation concluded that the tools were related to ancient mining from shallow pits to recover copper for the production of bronze and jewellery. The discovery of the Bronze Age mines within the Oyu Tolgoi Licence Area raised the awareness of the national archaeological community, which then conducted additional investigations and found other sites of significance.

In 2002, MASIA commenced excavation surveys within the Mine Licence Area which identified four ancient copper workings on the low hills of Central and South Oyu (see Sites 1-4 in Table 12.4 below). These sites represent the ‘Turquoise Hill’ after which the Project is named. The ancient mines had been filled with sediment and were known only from the initial record of Garamjev. These sites were found to be within the mineralised zone of Central and South Oyu and would be destroyed by the development of open pits.

Detailed investigations were commissioned in 2002 and the results of the excavations and research are reported in Tseveendorj et al. (2002). The report describes the various layers of mine workings within each separate mine, which are approximately 10 m x 10 m in area at the surface and extend up to 2.8 m in depth. The excavation also included stone mining and digging tools, animal bones, and more recent excavation tools.

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artefacts from the 18th and 19th centuries. Full details of the survey and finds are recorded in Appendix 24.8 to the Mine and Processing EIA. 26

These workings are considered unique as they are historically representative of early mining practices in the Gobi. This was a landmark excavation as it allowed a systematic analysis of ancient copper mines in Mongolia to be implemented for the first time. Artefacts from the mines have since been removed and catalogued by MASIA and relocated to the Institute in Ulaanbaatar. However, and whilst most of the artefacts have been removed, some remain in situ and will need to be excavated prior to construction.

Oyu Tolgoi requested a proposal from MASIA to either undertake further research on the ancient mines, or to develop a replica that may be exhibited in the Khanbogd Museum. MASIA have commenced salvage work (including conducting an ethnographic assessment and oral history documentation) and this work is ongoing. A 3D replica will be ready for exhibition by the end of 2013.

**Two petroglyphs** were found on the western boundary of the Mine Licence Area. The two petroglyphs, termed sites 7 and 8, are located in the far north-western corner and at this stage no disturbance is envisaged; appropriate mitigation measures will be developed as part of Phase II of the Oyu Tolgoi CHP.

**Two stone structures** were also excavated in the northern sector of the Mine Licence Area. No human remains were found at these sites and the report concluded that these were likely to be animal sacrifice sites associated with a religious ceremony. The two structures, Sites 5 and 6, are located within the footprint of the proposed processing plant.

A letter from MASIA provided to Oyu Tolgoi on 3 September 2002 advised of no objection to the proposed mining development at Oyu Tolgoi and to the consequent excavation of these sites. In accordance with the law, the sites have been demarcated and artefacts removed to Ulaanbaatar.

In addition to the sites described above, 23 fossilised dinosaur eggs were discovered during the excavation of Shafts 1 and 2 in 2005. These date back to the Cretaceous Period and have since been excavated and removed for further study by Mongolian State University.

*Table 12.4 below describes the archaeological findings within the Oyu Tolgoi Mine Licence Area.*

<table>
<thead>
<tr>
<th>Site</th>
<th>Description* (value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site 1 Oyu Tolgoi Mine 1</td>
<td>Excavated copper mine with stone tools (likely Bronze Age) Artefacts recovered to Ulaanbaatar (Considered: unique)</td>
</tr>
<tr>
<td>Site 2 Oyu Tolgoi Mine 2</td>
<td>Excavated copper mine with stone tools (likely Bronze Age) Artefacts recovered to Ulaanbaatar (Considered: unique)</td>
</tr>
<tr>
<td>Site 3 Oyu Tolgoi Mine 3</td>
<td>Excavated copper mine with stone tools (likely Bronze Age) and 18th or 19th Century artefacts Artefacts recovered to Ulaanbaatar (Considered: unique)</td>
</tr>
<tr>
<td>Site 4 Oyu Tolgoi Mine 4</td>
<td>Excavated copper mine with stone tools (likely Bronze Age) Artefacts recovered to Ulaanbaatar (Considered: unique)</td>
</tr>
<tr>
<td>Site 5 Stone Structure 1</td>
<td>Excavated ancient animal sacrifice site, age unknown (Considered: unique)</td>
</tr>
<tr>
<td>Site 6 Stone Structure 1</td>
<td>Excavated ancient animal sacrifice site, age unknown (Considered: common)</td>
</tr>
<tr>
<td>Site 7 Petroglyph 1</td>
<td>Wolves etching on rock – near western border of Oyu Tolgoi Licence Area</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Site</th>
<th>Description* (value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site 8 Petroglyph 2</td>
<td>Tibetan script (approximately 200 years old)</td>
</tr>
<tr>
<td></td>
<td>(Considered: valuable)</td>
</tr>
<tr>
<td>Dinosaur Eggs</td>
<td>Logged and transferred to Ulaanbaatar</td>
</tr>
<tr>
<td></td>
<td>(Considered: valuable)</td>
</tr>
</tbody>
</table>

Coordinate locations in UTM Zone 48, Northern Hemisphere (WGS84) Source: Tseveendorj (2002):.

* the Mongolian government has yet to prepare a full inventory of archaeological sites in terms of their 'value' under Mongolia law; hence the 'value' attributed is the view of the MIHT.

The stone structures and petroglyphs listed above do not represent ovoos. Figure 12.4 illustrates the location of archaeological finds within the Mine Licence Area.

12.7.3 Gunii Hooloi Water Supply and Pipeline

The Oyu Tolgoi Project will be supplied with water via a 70 km pipeline from the Gunii Hooloi borefield. An archaeological survey of route alignments for the pipeline was undertaken by MASIA between 5th and 9th July 2006\(^{27}\) using Garmin 12 GPS, digital cameras and metal detectors and covered an area of 22.5 km\(^2\). Full details of the survey and finds are recorded in the Gunii Hooloi Borefield EIA and are summarised here.

The survey identified 5 sites as follows:

- Site 1 Oyu TolgoiS-001 Possible grave site;
- Site 2 Oyu TolgoiS-002 Grave mound of cover stones;
- Site 3 Oyu TolgoiS-003 Possible grave site;
- Site 4 Oyu TolgoiS-004 Possible grave site; and
- Site 5 Oyu TolgoiS-005 Possible grave site;

None of these sites are considered to be ‘unique’ by MIHT, hence standard mitigation practice is recommended (as described in Chapter C11: Cultural Heritage Impact Assessment).

In terms of the location of the archaeological sites and potential interaction with the proposed pipeline alignment, there is clear separation between the sites and the proposed pipeline alignment. No changes are required to the pipeline alignment to avoid the identified sites. However, special care and attention will be required for the sites Oyu Tolgoi S-1, Oyu Tolgoi S-2 and Oyu Tolgoi S-3 due to their proximity to the small borefield collector pipes and production bores. Figure 12.5 illustrates the location of archaeological finds within the Gunii Hooloi borefield. Specific mitigation measures are discussed in Chapter C11: Cultural Heritage Impact Assessment.

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\(^{27}\) Pipeline Realignment Archaeological Report prepared by the Institute of Archaeology, Mongolian Academy of Sciences 2006.
Figure 12.4: Cultural Heritage Finds in the Mine Licence Area
Figure 12.5: Location of Archaeological Finds, Gunii Hooloi Borefield
12.7.4 Oyu Tolgoi to Khanbogd Road

In addition to the Gunii Hooloi borefield area, the July 2006 survey identified a number of sites along the existing road from Oyu Tolgoi to Khanbogd (42 km). To the west of the road, the survey identified a Balbal\(^{28}\) of the ancient Turkic period, comprising 29 stones erected in a curve. Northeast of the Balbal (at 100 m), the survey identified a round-framed tomb.

A summary of the findings and their locations is given below:

- Site Oyu TolgoiW-02: an ancient Turkic Balbal was discovered which comprises 29 horizontally settled stones (see Figure 12.6); and

- Site Oyu TolgoiW-03A: a round-framed tomb was discovered 100m northeast of the Balbal, covered with an oval granite stone.

Whilst the tomb is considered to be a ‘common’ feature, i.e. without any outstanding characteristics, MIHT recognises that burial sites generally have special meaning in any culture as a traditional link to ancestry. Documenting and avoidance of such sites are therefore appropriate ways of demonstrating respect for a local community’s past. The Balbal monument was evaluated as an ‘important’ site by MIHT as it is representative of the Turkic state in Mongolia and was photographed, documented and further investigated in March 2011. Whilst the Khanbogd to Oyu Tolgoi road is not currently part of the active Oyu Tolgoi Project, it is possible that the road will be upgraded by Oyu Tolgoi hence its consideration here.

*Figure 12.6: Oyu Tolgoi W-02. Balbal stone (Turkic period)*

Source: Tseveendorj (2006)

12.7.5 Infrastructure Corridor: Oyu Tolgoi to Gashuun Sukhail Road (2004 option)

An initial archaeological survey of the initial Oyu Tolgoi to Gashuun Sukhait transport corridor was conducted by MASIA from November 10 to November 19, 2003. The scope of the survey extended from the Oyu Tolgoi site to the Gashuun Sukhait frontier crossing point. Research work was conducted using a trans-section method together with visual observation, cartography and a review of secondary documentation sources. Full details of the survey and finds are recorded in Appendix G to the Oyu Tolgoi to Gashuun Sukhait Road DEIA and are summarised here.\(^{29}\)

\(^{28}\) The term “Balbal” generally includes anthropomorphic stone stelae or images cut from stone that are associated with memorial complexes.

\(^{29}\) Oyu Tolgoi Project Environmental Impact Assessment, Volume I Report of Oyu Tolgoi to Gashuun Sukhait Road and Infrastructure Corridor, Environmental Protection Plan and Environmental Monitoring Plan, Eco-Trade LLC, 2004; Appendix G: Archaeology.
The survey identified 52 archaeological sites including two Upper Palaeolithic sites and 50 tombs from the Bronze Age that also exhibited artefacts representing the Iron Age. The most significant finds were square tombs found on the route between the centre of Javkhlant bagh to Oyu Tolgoi. These finds refute previous studies which indicated that people who left square tombs of Bronze Age had only lived in the Central and Northern regions of Mongolia. The Stone Age settlements found in this area date back to the Upper Palaeolithic period or 40,000-12,000 years ago. Due to this and other material concerns, a further route alignment was considered and implemented (see below a discussion on the 2006 route alignment). Figure 12.7 illustrates a round tomb.

**Figure 12.7: Mongolian Tomb with Round Brim**

12.7.6 Oyu Tolgoi to Gashuun Sukhait Road – 2006 Option

The new corridor was assessed by MASIA over a 5 day period from 10 July to 14 July 2006. Full details of the survey are provided in Appendix 1 to the supplementary DEIA\(^{30}\). The survey was conducted along a 2,000 m wide transect using Garmin GPS 12, digital camera and a Fisher metal detector. Artefacts found included Neolithic chips and stone tools, though the tools were found at some distance from each other indicating the absence of settlement. During the survey, a fragment of the brim of an enamel surfaced porcelain vase was found, dating back to the Middle Ages (13\(^{th}\)-14\(^{th}\) century).

In summary, there were no major archaeological resources found in the survey area for the new Oyu Tolgoi to Gashuun Sukhait road alignment in 2006, but there were a few Neolithic stone tools, remnants, chips and porcelain vases (see Figure 12.8).

No further works were recommended.

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12.7.7 Oyu Tolgoi to Gashuun Sukhait Road – Final Route Assessment (July-August 2010)

An additional survey of the area from the southern gate of Oyu Tolgoi to the junction with the main alignment was conducted in July-August 2010. Starting from July 2010, a 20 km stretch of the proposed road was surveyed and three archaeological sites were found. Further examination of the finds was undertaken on August 22, 2010, and six sites were ultimately identified along the new road alignment, of which five were burial sites and one was a stone feature. This work was conducted as part of Phase I of the CHP. In February and March 2011, further surveys in the area of the infrastructure corridor uncovered an additional 17 sites. Studies of these sites will continue as part of the CHP (Phase I). Figure 12.9 below shows the locations of archaeological finds in the infrastructure corridor.

12.7.8 Airport Relocation (Temporary Airport)

An archaeological walkover survey was conducted over a six day period between 29 June 2006 and 4 July 2006 at the Domestic Airport location. The research team was from MASIA and conducted the work in accordance with the Mongolian Cultural Heritage Law. The spatial scope of this work included an area of 5 x 2 km². A walkover survey was conducted by 7 people using 50 m transects from west to east. This airport replaces the current airstrip which is within the Mine Licence Area and was covered by the archaeological surveys of the mine footprint.

No major archaeological resources were encountered during the survey, although some examples of shards from porcelain vases dating from the 13th-14th centuries were found at two locations. The experts do not consider the pottery shards to be sufficient evidence of ancient nomadic settlements.

12.7.9 Permanent Airport

An archaeological survey sponsored by Oyu Tolgoi was conducted of the permanent airport and its potential area of impact in Khanbogd soum on August 21, 2010. No archaeological sites were discovered in this area. This work was carried out under Phase I of the CHP. Since the 2010 survey, an ovo has been constructed at the airport site, including material offerings and blessed by a monk.

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31 Report for archaeological survey works made at the Oyu Tolgoi airstrip to be built newly in the exploitation site of “Ivanhoe Mines Mongolia Inc.” company in the territory of Khanbogd soum, Omnogovi aimag, 2006.
Figure 12.9: Infrastructure Corridor Cultural Heritage Finds
12.7.10 Paleontological Sites

Research undertaken since the 1920s has revealed some 60 fossil sites in southern Mongolia, of which 31 sites (over 50%) are located in Omnogovi aimag (Figure 12.10). There are a number of internationally renowned paleontological sites in the Oyu Tolgoi Project Area of Influence, including in Khanbogd, Manlai and Bayan-Ovoo soums. These sites range from dinosaur footprints to fossil-bearing geologic units. Three paleontological sites such as Baishin Tsav, Khuurai Tsav, Urlub Khudag are located in Khanbogd, and are predominantly represented by the finds of dinosaur relics dating back to the beginning of Late Cretaceous Period, nearly 145 million years ago.

Figure 12.10 below illustrates fossil sites within the aimag; this figure is a direct extract from the CHP I report and is illustrative only.

Figure 12.10: Fossil sites in southern Mongolia

Three paleontological sites, Baishin Tsav, Khuurai Tsav, Urlub Khudag are located in Khanbogd soum and include fossils of the Late Cretaceous Period however none of the sites are within the construction footprint of Oyu Tolgoi and are unlikely to be affected by the Project. The Shar Tsav dinosaur fossil locality was first found on July 31, 1995 by the Joint Mongolia-Japan Paleontological Expedition about 10 km northeast of the Baishin Tsav site in Khanbogd soum. The same expedition conducted more detailed investigations there in 1996 and 2001. The dinosaur tracks at Shar Tsav are preserved in a solidified sandy stratum composed of coarse sandstones. Ornithomimid\(^{32}\) dinosaur fossils were also been found at Shar Tsav in the early 1980s. Many dinosaur tracks, elongatoolithid and spheroolithid dinosaur eggshells, and bones of ancient birds, turtles and crocodiles were also recovered here by other research

\(^{32}\) Ornithomimids were a distinctive group of tetrapod dinosaurs who show a good example of convergent evolution with the ratite birds, such as ostriches. Ornithomimids are interesting and useful for the information that they can give us about the origin of birds.

Source: http://www.ucmp.berkeley.edu/diapsids/saurischia/ornithomimidae.html
expeditions. The Oyu Tolgoi CHP is exploring ways to facilitate protection of the fossil heritage, potentially drawing on a model by the Society of Vertebrate Palaeontology\textsuperscript{33} (United States) whose studies contributed to enactment of The Paleontological Resources Preservation Act (U.S. PRPA).

The preliminary conclusions presented in the CHP Phase 1 Report discuss the possibility of applying in Mongolia a legislative framework similar to that of the U. S. Paleontological Resources Preservation Act – a recommendation which, if upheld, would need to be pursued in close cooperation with the applicable government agencies and research institutions.

12.7.11 Sacred Landscapes and Living Heritage

\textit{Javkhlant Mountain}

Javkhlant Mountain is located 17 km from the Mine Licence Area and is one of the most significant features identified in the MASIA surveys. The mountain is a prominent landscape feature and holds cultural significance to the people of the soum (it is classified locally as highly significant). A specific study was carried out by MASIA on the Javkhlant Mountain which was recognised through community consultation as a unique cultural heritage site. Results of the survey fieldwork were compiled in the monographs: "Petroglyphs of Javkhlant Mountain"\textsuperscript{34} (Ulaanbaatar: 2004).

A large stone “ovoo” a rock pile with blue flag, is located at the peak of Javkhlant. There are also around 200 petroglyphs containing over 300 figures at the peak. Many of the figures and artwork recorded from Javkhlant are unique as they have not been found elsewhere and represent a substantial period of time from the Neolithic to the Bronze Age. The protection and long-term of the site is planned through cooperation between the local administration, MASIA, and Oyu Tolgoi (MIHT). The publication of “Petroglyphs of Khanbogd” monograph\textsuperscript{35} was sponsored by Oyu Tolgoi.

\textbf{Figure 12.11: View of the Javkhlant Mountain}

\begin{center}
\includegraphics[width=0.5\textwidth]{javkhlant.jpg}
\end{center}

\textsuperscript{33} http://www.vertpaleo.org/education/documents/PublicLaw111-011-PRPA.pdf.

\textsuperscript{34} By D. Tseveendorj, Ya. Tserendagva, B. Gunchinsuren and D. Garamjav.

\textsuperscript{35} By D. Tseveendorj, D. Garamjav, B. Gunchinsuren, Ya. Tserendagva, Ch. Amartuvshin and T. Munkhbat) Ulaanbaatar, 2010
Sites Identified under CHP I

Other sacred sites in the Oyu Tolgoi Project Area of Influence were studied as part of the CHP Phase I work. These sites tend to be localities within the landscape where mythical or historic events are believed to have taken place, which reinforces the traditional social norms.

Any change to an ovoo or other sacred site must be conducted with prior consultation with the community; a ceremony is held to consecrate the new site or remove the old site; with the Project Area of Influence, Oyu Tolgoi has identified Oyu Tolgoi itself together with Vandan Tolgoi Hills and Bor ovoo – all of which have significance to the community and require protection. A ceremony will be conducted with the community to consecrate the new/replacement spring to Bor ovoo when this site is determined. A groundbreaking ceremony, including lamas and community members, was held for the opening of the new permanent airport site to ‘bless’ the land (April 2011) (see Chapter C11: Cultural Heritage Impact Assessment).

A sample of the other sites within the soum is included in Table 12.5 below.

Table 12.5: Traditional Sacred Sites in Oyu Tolgoi Direct Area of Influence (Sample)

<table>
<thead>
<tr>
<th>Name of Sacred Place</th>
<th>Related Rituals, Myths, and Stories</th>
<th>Bagh and Winter Camp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Khanbogd Khairkhan</td>
<td>Annual rituals associated with the taboo forbidding women from climbing this sacred mountain take place here during the first month of each summer and on the first day of the Lunar New Year (Tsagaan Sar). The Lady of Khanbogd Khairkhan is said to resemble “A woman wearing a green deel, riding a white camel, with a baby wild sheep hanging from a bag on the camel's back.” A wooden tower was erected in the 1970s, but it was destroyed by a storm after only three days. Afterwards an iron tower was constructed, but it was recently removed.</td>
<td>Khairtsagt Aman Us and Toin Tsokhio winter camps, Javkhlan bagh</td>
</tr>
<tr>
<td>Khalankhai Khairkhan</td>
<td>This is one peak in the range of hills on the west side of Khanbogd Khairkhan. It is a sacred place where it is forbidden to touch any stones or trees or camp in its vicinity.</td>
<td>Oortsog winter camp and Khaliv Uus</td>
</tr>
<tr>
<td>Horse Racing Location, Maanit Banner and Toin Tsokhio Valley</td>
<td>During ritual festivals in Khanbogd soum, horse races are held in of Toin Tsokhio Valley with a finish-line in Maanit Banner. This horse-racing area is also called the Altangerel Basin. Three small hills here, Gurvan Saikhan, are worshipped as well.</td>
<td>Winter camp and water source of Toin Tsokhio</td>
</tr>
<tr>
<td>Khuren Teeg and Tsankhi</td>
<td>In pre-Revolutionary times, this was a burial ground. People say that Khuren Teeg is shaped like a rabbit while its neighbouring hill, Tsankhi, resembles a sar bird. The reason this place was chosen as a burial ground is that, in resembling a rabbit, it represents stability and permanence. Khanbogd people say that burial grounds are chosen for their richness and stability in the hope that such conditions positively influence the deceased's descendants. Approximately ten people have been buried at Tsankhi in recent times. (D. Namsrai)</td>
<td>Khoroot (Bor Khoshuu) winter camp</td>
</tr>
<tr>
<td>Khul Khairkhan</td>
<td>This spot is worshipped since the Noyon Khutagt Incarnate declared that this mountain is the left-front leg of Khanbogd Khairkhan.</td>
<td>Ehii Huuvur winter camp and water source</td>
</tr>
<tr>
<td>Noyon Khar Obo</td>
<td>The elder herder Tsedengombo regards this as the burial of a noble person, hence its name: “Black Noble Obo.” He also assumes a connection between Noyon Khar Obo and Buduun Obo (“Fat Obo”) because there are standing stones erected deliberately that link the two spots.</td>
<td>Ehii Huuvur winter camp and water source</td>
</tr>
<tr>
<td>Durvuljin Obo</td>
<td>This is the one of the principally worshipped mountains of the people of Ehii Huuvur winter camp. It is said that if one rides a camel near this place, they will be followed by a camel; in other words, the site has</td>
<td>Ehii Huuvur winter camp and water source</td>
</tr>
</tbody>
</table>

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36 Ceremonies are always held with the community when a new ovoo is established.
### Name of Sacred Place | Related Rituals, Myths, and Stories | Bagh and Winter Camp
--- | --- | ---
Chavga Agui (Bayajikh Agui) | This cave is called Chavga after an eponymous Buddhist Monk who meditated there. Tsedengombo proposes that it be renamed Bayajikh (Getting-Rich) since a hunter named Sadaga Baljir hunted successfully around this cave and changed the name to Bayajikh from Baljir. | Ehiin Huuvur winter camp and water source
Three Beauties Mountains | These three peaks at the eastern end of the Khanbogd Khairkhan range are thought of as the three husbands of the Lady of Khanbogd Khairkhan. It is taboo for women to climb any of these peaks. | Khairtsagt Aman Uus winter camp
Khuurkhun Obo | This sacred cairn is off-limits to women. It is also taboo to touch or remove any stones or trees here. The location’s actual name cannot be said openly, so people refer to it by using nicknames like Khuurkhun Obo, “Sweet Hill” | Khukh Khad and Salaa winter camps
Bayan Baraat Khairkhan | Bayan Baraat is the one of the highest mountains in the area. Pastoralist households residing nearby offer tea every morning to this mountain. | Ugalz winter camp Ehen Burkhan winter camp
Tsagaan Del | Tsagaan Del is a long ridge that local people say is the body of giant snake; its tail reaches the rocks at the east of Ehen Burkhan winter camp. People regard Tsagaan Del as threatening and are reluctant to ride around there. | Ugalz winter camp Ehen Burkhan winter camp

Source: as cited in the CHP Phase 1 Report (Feb. 2011), “Traditional sacred places in the direct impact zone”

### Tangible Sites of Living Heritage Identified by the CHP Ethnographic Survey

Further evidence of the living heritage of the Project Area was obtained from the Ethnographic Assessment under CHP I. The assessment was conducted by the Institute of History, Mongolian Academy of Sciences between 19 December 2010 and 15 February 2011 within 15 km from the Oyu Tolgoi to Gashuun Sukhait road, power towers, water pipeline and the new airport. The Assessment aimed to identify sacred mountains, ovoo sites, current and ancient burial places as well as other locations and features that represent living tangible heritage. Stories and myths associated with the sacred places (i.e. intangible heritage) were also researched as part of the Ethnographic Assessment. An ethnographic recording of sacred places has not been previously undertaken to this extent in Khanbogd soum.

Specifically, the following features were studied:

- Sacred places for ritual performance – localities where established public ritual ceremonies/festivals take place;
- Places of worship – sacred sites that have no fixed public ritual performances but are subject to the expression of worship, veneration and offerings from individuals;
- Places of sacred powers – locations where some unexpected or abnormal events are believed to have taken place, perceived as a demonstration of special powers and a risk of negative consequences in case of removal of objects (e.g. stones, trees) from such sites;
- Taboo places – this category comprises pre-modern and modern burial grounds. Also included within this category are places that are believed to have witnessed some bad events which results in people’s avoidance of residing there; and
- Inherited places – this category includes areas and features that are vital for nomadic livelihood such as pastures, winter camps, water wells etc. both those inherited from ancestors and newly
possessed. Birth place stones\textsuperscript{37}, Mongolian traditional stone ger game bases, historical guard or hunting hideaways and horse racing areas are included under this category as well.

The ethnographic fieldwork was primarily based on visiting Khanbogd households and interviewing families residing in the areas of study as specified above. Visits were made to herding households in Javkhlan, Gaviluud, Bayan and Nomgon baghs of Khanbogd soum, which reside and camp within the 15km distance from the Oyu Tolgoi to Gashuun Sukhait road, power infrastructure towers, water supply pipeline, and the permanent airport. In total, 80 families were interviewed in the course of the assessment and 145 sacred and inherited places were identified and documented.

The categorisation of the sites was based on a number of aspects, such as an extent of coverage (i.e. reflecting soum and bagh community identity, shared by territorial neighbours, or of importance to a family/an individual), ritual frequency, as well as a type of cultural function, meaning, symbolisation and sacredness assigned to the sites by interviewees.

The following types of living tangible heritage were distinguished on the basis of coverage criteria, i.e. taking into account the relation of a site to a soum and bagh community, neighbourhood, household, or a person:

- Sacred places (including natural features and ovoos) that represent soum and bagh community identity. This group is most actively worshipped at present through annual festivals of ritual offering and are important sites of community gathering;
- Sites of common worship by neighbouring herders with shared pasture livelihoods. These places typically do not have a fixed ritual, rather a set of various taboos associated with them;
- Family-based sacred places. This category constitutes a major body of the sacred places in Khanbogd soum that usually symbolise the well-being of a family and their herd; and
- Ritual/ceremonial places related to the identity of individuals (a birth place stone, stone ger game bases) and carry their connections to their native land.

If required, relocation of a living heritage site (in case of movable features such as trees and ovoos) will be implemented in consultation with the groups/individuals associated with it and provided that appropriate rituals have been performed, with due deference to the local customs and traditions. The Oyu Tolgoi Project is fully aware of this requirement and will follow such an approach in all cases where relocation of the sacred features becomes unavoidable.

Sacred places that are key environmental points were identified as a separate category. Such sites include sacred mountains and rivers that play a vital part in functioning of the landscape and in maintaining local people’s livelihoods in the area. Prominent examples of these places are the Uulzvar, Tsahlidagtagai, Darvagai and Undain (also known as Undai) Rivers that represent the important water supply sources for the herders and their livestock.

A number of sites and locations (out of 145 in total) were identified in the Ethnographic Assessment as “highly significant” or in a “high risk zone” due to their proximity to the Project activities. These high value sites are listed for the soum below.

\textbf{Table 12.6: Examples of traditional sacred places in Khanbogd soum}

<table>
<thead>
<tr>
<th>Name and location of sacred place</th>
<th>Cultural function</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maanit and Valley of Toin Tsokhio</strong>&lt;br&gt;5 km east of Oyu Tolgoi to Gashuun Sukhait road.</td>
<td>Inherited, cultural significant sacred place to all Khanbogd soum people and is one of the main horse race areas in the soum which has annual horse racing. Associated tales and myths.</td>
</tr>
<tr>
<td><strong>Huren teeg, and Tsankhi</strong>&lt;br&gt;2 km north-west of Oyu Tolgoi to Gashuun Sukhait</td>
<td>Sacred taboo place which was old burial place and has been revived in recent years. The place is worshipped by several local families and there is the taboo on approaching it and touching stones.</td>
</tr>
</tbody>
</table>

\textsuperscript{37} Due to the nomadic character of the Mongolian culture, which entails frequent movements and changing residences, a birth place retains significant importance for Mongolian people that is conveyed through the marking of such places and the conducting of rituals.
<table>
<thead>
<tr>
<th>Name and location of sacred place</th>
<th>Cultural function</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Uulzvar River</strong>&lt;br&gt;1 km east of Oyu Tolgoi to Gashuun Sukhait road.</td>
<td>Sacred river, one of the key water sources around this area worshipped by several herding families.</td>
</tr>
<tr>
<td><strong>Darvagai River</strong>&lt;br&gt;400 m west of Oyu Tolgoi to Gashuun Sukhait road.</td>
<td>Sacred river worshipped by several kinship and territorial based families. There is no fixed ritual but worshipping families make an offering of fresh tea every morning.</td>
</tr>
<tr>
<td><strong>Tsagaan Khad</strong>&lt;br&gt;Within direct impact zone of Oyu Tolgoi to Gashuun Sukhait road.</td>
<td>Sacred rock worshipped by several families around this area. It has no ritual, but there are associated taboos and related stories. Important aspect of sacredness is rare tress of Khailaas and Sukhai which create a small oasis.</td>
</tr>
<tr>
<td><strong>Tavan Tolgoi</strong>&lt;br&gt;800 m north-west of New Airport.</td>
<td>Sacred historical place worshipped by Gaviluud bagh residents. Family based rituals and offerings are performed.</td>
</tr>
<tr>
<td><strong>Uulzvar River and Uulzvar open water source</strong>&lt;br&gt;1 km from Oyu Tolgoi to Gashuun Sukhait road.</td>
<td>A sacred place that is forbidden to touch and remove stones and trees. Worshipped by a local family.</td>
</tr>
<tr>
<td><strong>Undain River (also known as Undai)</strong>&lt;br&gt;1 km east of Power Towers Line.</td>
<td>The worshipping local family says that “This river is a main water source supplying people, therefore, it should be not hurt.”</td>
</tr>
<tr>
<td><strong>Tsahildagtai River and Tsahildagtai Zadgai Us</strong>&lt;br&gt;1 km away east of Oyu Tolgoi to Gashuun Sukhait road.</td>
<td>A sacred river- one of the main sources of water supply in this area (for local winter camps). Local people worship this place and have a certain taboo associated with it.</td>
</tr>
</tbody>
</table>

A full description of the sacred sites identified as a result of the Ethnographic Assessment, including names, locations, main cultural functions, the level of geographical coverage, frequency of associated rituals and ceremonies at the sites as well as recommendations for protection is presented in the “Report on Ethnographic Assessment for Sacred and Inherited Places around Oyu Tolgoi Project Construction Objects (Oyu Tolgoi to Gashuun Sukhait road, power towers, water pipeline and new airport)”, by Ch. Sampildondov and Lh. Purevjav, Ulaanbaatar 2011.

### 12.7.12 Crafts and Traditions

As a result of Phase I of the CHP studies, twelve types of intangible resources were identified as significant for the residents of Ömnögovi aimag and the Oyu Tolgoi Project Area of Influence. These intangible assets are as follows:

1) Metal smithing;
2) *Uurtiin duu* singing;
3) Tradition of *Tsulkhir*\(^{38}\) and *Bajuun* flour making;
4) Animal brands used by herding families as symbolic inheritance from their ancestors;
5) Tradition of making Mongolian *ger* and *ger* facilities;
6) Deity images and ritual worship objects inherited from ancestors;

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\(^{38}\) Tsulkhir (*Goosefoot, Agriophyllum vungens*) is a chenopod which grows abundantly in the Gobi region. Local people gather and use it for food and as a medical treatment. Tsulkhir is renowned for its medicinal characteristics, including lowering body temperature and cleansing inner organs.
7) Traditional food and diet adhered to by herding families;
8) Kin relationships and the knowledge of kinship affiliation;
9) The game of Building Stone Gers\(^39\);
10) Shagai or the game of Ankle Bone Shooting;
11) Traditional taboos of Gobi people inherited within herding families; and
12) The practices of Buddhism and shamanism.

Further details on intangible resources are presented in the sections on intangible heritage of the CHP Phase 1 Report (February 2011).

**12.7.13 Planned Work**

Phase I of the Cultural Heritage Programme (CHP) was completed early in 2011 although some long-lead studies are still ongoing and the report remains a living document. Phase II is being implemented and will focus on implementation of identified measures. In addition, Phase II will result in the development of detailed guidelines for archaeological monitoring, documentation and reporting. Phase II will also define the institutions involved and the responsibilities for cultural heritage protection. The CHP Phase II will include preparation of a GIS database to catalogue and map tangible cultural heritage in Omnogovi aimag. The database will serve as a register of the known archaeological sites that require special protection measures and will also allow through the application of statistical techniques to make predictions of locations where archaeological sites may be found. The GIS database will provide detailed information on each catalogued site, including its location (name of the soum and locality), site number, GPS coordinates, site type and size, age and period, date of discovery, and survey source.

Implementation of cultural research under the CHP Phase II will contribute to the improved knowledge of local customs, traditions, and livelihoods. Oyu Tolgoi’s support going forwards will also involve the development of public educational programmes on traditional customs and the sponsorship of local festivals (such as regional Naadam festival).

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\(^{39}\) The game is imbued with cultural knowledge and the practices of ethics and morality of the Mongol household, including respecting guests and engaging in elaborate greetings. Teenagers mainly engage in this play, behaving as a family, with a “husband” and “wife” performing greetings, affording respect to men, entertaining guests, etc.