

ICOMOS

ICOMOS ANTARCTIC ARCHAEOLOGY GUIDELINES 2022

Preamble

These Guidelines are intended to assist ICOMOS National Committees and members when:

- Advising on heritage sites in Antarctica with archaeological value¹;
- Developing or advising on national policies and programs for implementation in Antarctica; or
- Planning or undertaking fieldwork or projects in Antarctica;

They have been developed by the International Polar Heritage Committee (IPHC), an International Scientific Committee of ICOMOS, which brings together a range of expertise in heritage research and management in the Arctic and Antarctic. The IPHC has been providing heritage advice within the Antarctic Treaty system² (ATS) and has close links through an MoU with the Scientific Committee on Antarctic Science (SCAR) which is a chief advisory body within the ATS. These guidelines augment the *ICOMOS Charter for the Protection and Management of the Archaeological Heritage* (1990) and are aligned with the *Code of Conduct for Researching and Protecting Archaeological Evidence in Antarctica* developed by the IPHC and SCAR (currently under development).

Antarctic archaeology is the focus of these guidelines, rather than Antarctic heritage management, for two reasons. Firstly, while it is recognised that archaeological value (as a scientific value) is usually just one aspect of the overall suite of values of a heritage site, the archaeological record requires specialised methodologies for its study and if justified protection, that are sufficiently distinct from other methods applied to the conservation of formal Antarctic Historic Sites and Monuments (HSMs) to warrant a specific set of principles and practices as outlined in these Guidelines. Secondly, the study of sites with archaeological research potential can involve research approaches that are not necessarily related to heritage conservation programs or objectives. An example is the extensive archaeological research carried out at the early nineteenth-century sealing campsites in the South Shetland Islands. The Byers Peninsula, where many sealing sites survive, is designated as an *Antarctic Specially Protected Area* (ASP), and its Management Plan recognises in a generic sense the heritage values of these sites. However, none has as yet been designated as HSMs under the ATS processes, nor as sites to be protected under national laws controlling the activities of nationals in Antarctica, and no conservation program has been implemented to protect these campsites. As of 2020, the only on-site work has been focused on investigating their archaeological research value, though the objective of long-term protection informs that work.

The Antarctic Treaty (1959) established the area from latitude 60° South, to and including the South Pole, as a zone of peace and science. Antarctica is governed through consensus by the signatory nations (Parties) who hold regular consultative meetings and are advised by an internal Committee for Environmental Protection (CEP) and SCAR, an independent scientific advisory organisation. The

¹ 'Archaeological value' relates to the presence of physical evidence that contributes to heritage values (historical, aesthetic, cultural and scientific), or that has potential to provide meaningful information through scientific investigation using archaeological techniques, independent of long-term conservation issues. See Appendix 1 for an expanded definition.

² See Appendix 1 for a definition.

resulting decisions and actions are part of the Antarctic Treaty System and are enacted through domestic law by the treaty nations. The Antarctic Treaty placed all Antarctic territorial claims on hold; therefore, UNESCO's World Heritage system is not applicable (there being no national territory), and Antarctica's joint governance is fundamentally different from the Arctic region which is the territory of sovereign nations.

The *Protocol on Environmental Protection to the Antarctic Treaty* (1991, the 'Environmental Protocol', also referred to as the Madrid Protocol) established environmental stewardship as a central feature of Antarctic governance. The Environmental Protocol processes are discussed below. The *ATS Guidelines for handling of pre-1958 historic remains whose existence or present location is not known* (2001) and *Guidelines for the assessment and management of heritage in Antarctica* (2018) provide guidance on the management and provisional protection of sites in Antarctica where archaeological value is a fundamental element of their heritage significance or their research potential.

The definition of terms is provided at Appendix 1.

1. Introduction

- 1.1 Archaeology is the study of the past and human behaviour through physical evidence. Physical evidence exists that reflects the human interactions with the Antarctic environment over the last two hundred years, but its extent is finite and comparatively small. As there was no indigenous population in Antarctica, international standards related to indigenous sites do not apply. Most potential and recognised Antarctic cultural heritage sites such as many Historic Sites and Monuments (HSMs) or those informally protected by State Parties and those that have not yet been assessed, have archaeological evidence and hence potential archaeological research value. Other sites of human activities may have archaeological evidence that warrants their protection until such time as study and analysis of their scientific potential can be tested, but following study may or may not be found to be of sufficient heritage value to cross the threshold for longer protection. Yet other sites may simply have waste that does not contribute to the understanding or commemoration of Antarctica's past and should be removed as prescribed in the Environmental Protocol (Annex III).
- 1.2 The effective study of Antarctic archaeology is based on the recognition that it takes place within two distinct realms: one being the harshest physical environment on Earth with its associated isolation, logistical and operational challenges; and the other being the unique governance regime provided by the Antarctic Treaty system in the region between the South Pole and 60° South Latitude designated (within the Environmental Protocol) as a natural reserve devoted to peace and science, which defines the objectives and provisions of Antarctica's environmental stewardship.
- 1.3 In the context of the Antarctic Treaty System and the Environmental Protocol the response to the treatment of archaeological evidence is ambivalent. The Environmental Protocol has the aim of comprehensively protecting the Antarctic environment and in particular protecting it from the damaging impacts of human activities. It requires the removal of waste from past and present waste disposal sites on land and abandoned work sites of Antarctic activities, except in two situations, where waste removal entails:
 - the removal of any structure designated as a historic site or monument; or

- the removal of any structure or waste material in circumstances where the removal by any practical option would result in greater adverse environmental impact than leaving the structure or waste material in its existing location. (Environmental Protocol Annex III (1) (5))

The mechanisms for designating areas of ‘outstanding environmental, scientific, historic, aesthetic or wilderness values, any combination of those values, or ongoing or planned scientific research’ (as Antarctic Specially Protected Areas), and for designating Historic Sites and Monuments are provided in Environmental Protocol Annex V and satisfy the first exemption. The second exemption might be interpreted as including currently unassessed archaeological evidence, in that the Environmental Protocol identifies one of the environmental impacts to be avoided as ‘degradation of, or substantial risk to, areas of biological, scientific, historic, aesthetic or wilderness significance’ (Art. 3 (2)(b)(vi)), and the Annex (I) dealing with environmental impact specifies that a Comprehensive Environmental Evaluation shall include: ‘consideration of the effects of the proposed activity on the conduct of scientific research and on other existing uses and values;’ (Art. 3 (2)(i)).

These Guidelines provide some assistance for decision making not just in the identification and assessment of archaeological evidence for ASPA or HSM protection, but also in the area where judgement becomes difficult: where archaeological evidence is not already assessed in relation to Annex V, and its removal in accordance with Annex III may threaten the important archaeological resource or heritage sites. The challenge is to distinguish archaeological evidence that warrants further study or conservation, from that which can be considered as waste that should be removed from the continent in keeping with the Environmental Protocol.

- 1.4 It is recognised that from time to time there may be situations in which it might be necessary to make an urgent decision in order to protect a site or structure in Antarctica that might include archaeological evidence. This may be due to instability caused by decay, or immediate risks posed by environmental factors such as beach erosion or slope instability and other impacts of climate change. The precautions in these Guidelines should not be taken to hinder such legitimate urgent stabilisation or rescue actions to protect, record or salvage the Antarctic cultural heritage. However, adequate documentation of the site, and professional conservation or salvage advice should be secured first.

2. Determining cultural heritage and research values

- 2.1 The characteristics of a site that might identify it as being of potential archaeological research or cultural heritage value include:

- It has the potential to provide physical evidence about past construction, communications, infrastructure technology, scientific research techniques or marine resource exploitation that may complement or augment documentary sources or provide entirely new knowledge;
- It has the potential to provide physical evidence about past living conditions and life experience of those living in Antarctica that may complement or augment documentary sources or provide entirely new knowledge. This may include broader research in human behaviour as it is manifested in the Antarctic context;

- It is an area or landscape that contains a relationship of physical cultural remains and the natural environment that evokes a strong and largely undisturbed sense of an historical past;
- It has the potential, through embedded biological material and buried land surfaces to contain information about past climatic or environmental conditions.

In these examples ‘past’ means that the physical evidence reflects uses, designs, technologies or lifestyles that are no longer practiced in the same way in Antarctica. The ‘*Guidelines for handling of pre-1958 historic remains whose existence or present location is not known*’ (2001) implies a cut-off date of 1958 as defining the ‘past’, but this fixed date does not allow for the changes in Antarctic operations and living conditions that have occurred in the last 60-plus years – the period from 1958 to now is longer than that separating 1958 from the beginning of the Heroic era of Antarctic exploration and science. For the purposes of these Guidelines it is the study of change that is important, not a fixed date. Identification and study of sites for their archaeological research potential might lead to the assessment of heritage significance and the protection and conservation of sites.

- 2.2 The main means of recognising cultural heritage sites in Antarctica at present is their listing as Historic Sites and Monuments (HSM). HSMs, as cultural heritage sites which might include archaeological evidence, may be associated with specific events, persons or groups, wide-ranging activities, technical or architectural character, symbolic or social values, and most have the potential to reveal information through their study. Many Treaty Parties active in Antarctica also protect and conserve sites and buildings that are of heritage significance to a particular Party, mainly within research stations having a long history of operation. In some cases, this protection is formalised within national heritage or environmental legislation as it applies to State-owned assets (in Antarctica the assets might be owned, but the land is not).

3. Undertaking archaeological work

- 3.1 Archaeological evidence in Antarctica is scarce compared with other regions, given its recent history and the dispersal of human activities in a few locations over a huge continent. An overriding guiding principle for archaeological investigations in Antarctica should be that they further the understanding of the human history of Antarctica through archaeological research while also maximising the protection of Antarctic cultural heritage sites in-situ. Prior planning should ensure that any work avoids or minimises adverse impact on archaeological evidence of demonstrated or potential heritage or research value. The use of non-invasive techniques of survey and sampling, and carefully targeted partial excavation should, therefore, be preferred to total excavation where the same degree of information can be obtained. The decision to excavate should only be taken after a thorough consideration of all the cultural heritage values of the site, the related artefacts, the impact of such work on the local environment, and of the least destructive means of satisfying the research objectives. These considerations are equally relevant where environmental or development pressures dictate salvage archaeological work.

Planning Principles

- 3.2 Antarctic archaeology should be undertaken in accordance with agreed international and national professional standards, which are often reflected in the national standards of the

relevant Treaty Party. In accordance with such standards, ideally work should be undertaken by teams including a professional archaeologist responsible for oversight of the archaeological work. It is recognised that in an Antarctic operational context, in some instances, logistical issues limit team size and may exclude the option of including an archaeologist, and in these cases archaeologists should be involved at the planning stage in designing appropriate methodologies and protocols for dealing with archaeological materials and deposits. In the case of an archaeological research project where conservation is not a direct objective, an archaeologist should be in control of archaeological work, and should be responsible for ensuring that members of the investigation team are appropriately qualified or trained for any task they undertake or are otherwise directly supervised by qualified personnel in such tasks.

- 3.3 It is important to include materials conservation expertise in a conservation and research team, due to the high likelihood of extremely vulnerable organic artefacts and ecofacts (organic material carrying archaeological significance – *e.g.* bones, hide, feathers, blubber, DNA samples) being uncovered during Antarctic archaeological work.
- 3.4 The development of a comprehensive and documented research plan should be integral to all investigations of archaeological evidence, to ensure that the archaeology is of the highest standard. Such a research plan should include a clear statement of the research objectives, and if other scientific or cultural heritage values are associated with the site, how other relevant expertise will be involved in the project.
- 3.5 Where an investigation is undertaken that will disturb or destroy archaeological evidence (as in the case of excavation), such disturbance should be clearly justified. The archaeological research plan for the investigation should ensure that the work causes the minimum possible disturbance of the site consistent with the conservation or research objectives, together with the maximum acquisition and retention of archaeological evidence from the disturbed area. Documentary recording of the prior state of the site, the excavation/removal process and the artefacts removed, and the analysis of the site and associated artefacts and their field conservation, should form part of the documentary record.
- 3.6 Experience in Antarctic archaeology is difficult to obtain, and the gathering of appropriate collegiate advice and skills is critical for the long-term protection and research of the Antarctic archaeological resource and cultural heritage, and for the successful undertaking of environmental impact assessments. The creation of multi-national archaeological teams (including members from other State Parties engaged in Antarctic archaeology with interests in the site) and the involvement of early-career archaeologists should be encouraged. This is particularly important where a site may have multiple heritage values requiring different professional expertise.
- 3.7 In cases where the researchers of two or more Treaty Parties work together on an archaeological project, there should be prior agreement to ensure that the resulting archaeological evidence is studied as a single collection, that the repository for that collection is identified, and that the reporting and publication of the results are coordinated and agreed. Parties are encouraged to fund or support Antarctic archaeological research jointly where this is appropriate.

Site Investigations

- 3.8 As a precautionary measure, archaeological excavation should leave a representative portion of the study site undisturbed for future reference. For some types of archaeological site, where multiple examples may exist in one area, excavation should be limited to the minimum number of sites necessary to achieve the research or conservation objectives, leaving a substantial proportion of the sites for future research and conservation options. In the context of sites that are difficult to access and/or at significant risk from environmental change or activity associated with new developments, additional excavation or total excavation may be considered appropriate.
- 3.9 Underwater archaeology should be undertaken in full accordance with established international standards (e.g. the ICOMOS *Charter on the Protection and Management of Underwater Cultural Heritage* (1996)).
- 3.10 In some situations, for example in relation to archaeology in and around heritage buildings, it may be most appropriate to leave all or a proportion of archaeological artefacts at the site, and the protocols for this and for ongoing protection of the artefacts should be determined before the expedition.
- 3.11 A potential situation not yet fully considered in archaeological research in Antarctica is the finding of human skeletal remains. There is no clear process for dealing with historic human remains under the Treaty, and the responsibility of a Treaty Party undertaking the expedition to embrace coronial control has proven to be difficult to determine. In the rare cases where there is the potential to unearth human remains, prior advice on the physical and administrative/jurisdictional treatment of such remains should be investigated at the planning stage. Respect for human skeletal remains, and the methods applied to their investigation and treatment should be in full accordance with established international standards.

Analysis and results

- 3.12 The material conservation of all artefacts and related faunal and other materials recovered through archaeological investigations should be carried out in accordance with current professional standards. The material conservation program should provide for appropriate treatment of archaeological remains during an investigation, in transit and in the long-term. A precautionary approach and in particular the reversibility of all treatments wherever possible should be the guiding principle, and project funding should encompass such work.
- 3.13 Research, survey and excavation should be documented in accordance with current professional standards. Documentation aims to provide a comprehensive record of the site, including the location of any artefacts moved or removed, field-notes, excavation records, material conservation actions, plans and drawings, photographs and records in other media.
- 3.14 The documentation of an archaeological investigation should be deposited in an institution that can provide permanent curation of the archive (and any associated artefacts) and in keeping with the information exchange provisions of the Antarctic Treaty system, provide the means of open access to researchers. Arrangements for deposition of the documentation should be agreed before investigation commences and should be set out in the project design and permits.

- 3.15 A report on archaeological projects should be made available to the State Parties and the scientific community as required by the information exchange provisions of the Treaty (Articles II and III).
- 3.16 Archaeologists and their institution or organisation are responsible for the timely analysis of the archaeological evidence and the dissemination of the results of their work as widely as possible using plain language where appropriate. They are responsible for ensuring that the primary records and unpublished material (see 3.13) are deposited in an accessible public archive in a timely manner.

4. Protecting sites with archaeological value

Environmental Impact Assessment (EIA) processes

- 4.1 When carrying out environmental impact assessment processes in relation to proposed activities, as required by the Environmental Protocol (Article 8 and Annex I), and elaborated in the *Revised Guidelines for Environmental Impact Assessment in Antarctica* (CEP Handbook³), the possible presence of archaeological evidence with cultural heritage significance or potential research values should be considered. This is particularly relevant in the case of remediating past and present waste disposal sites on land and abandoned work sites of Antarctic activities, as covered in part by Annex III (5.1) of the Environmental Protocol.

If the presence of potentially significant archaeological evidence is suspected, archaeological expertise should be included in the preparation of the Initial Environmental Evaluation (IEE), and any subsequent Comprehensive Environmental Evaluation (CEE) if the archaeological values are subject to ‘more than a minor or transitory impact’.

Maintenance and conservation

- 4.2 The overall objective of archaeological resource management in Antarctica should be to maximise the preservation of significant archaeological evidence both in-situ, and in the proper long-term conservation and curation of all removed archaeological material and its related records. Any transfer of archaeological material from a site to a new location should be clearly and openly justified. Justification on the basis of research needs, environmental threat, conservation requirements, or development requirements should be supported by clearly documented evidence, and may in itself trigger EIA processes required by the Environmental Protocol (see 4.1 above).
- 4.3 Where, after wider assessment involving a range of professional heritage disciplines, a site with archaeological evidence is found to be of cultural heritage value, future intervention at the site should be limited to scientifically justified research and conservation-related actions, ensuring that archaeological evidence which they contain is managed to conserve its cultural heritage value. Other archaeological evidence may be found to have research potential that warrants its study and analysis within defined contexts (such as the study of embedded environmental evidence, cultural history or materials research, or environmental impact

³ Committee for Environmental Protection, *CEP Handbook 2017*, https://documents.ats.aq/atcm40/ww/atcm40_ww007_e.pdf

assessment), but following study may or may not be found to have heritage values which require longer-term conservation as HSM.

- 4.4 Archaeological evidence and deposits exposed by excavation should be protected by backfilling or other methods from seal or penguin activities, snow, ice and melt-water damage, and from the impacts of visiting tourist or scientific research or management activities, and to protect wildlife and visitors from the hazards of open pits.
- 4.5 Protection, maintenance and conservation methods should be designed with the specific circumstances of Antarctica in mind. They should not introduce risks to wildlife or the habitat occupied by wildlife; should not introduce substantial new elements that detract from the aesthetic appreciation of the landscape and the cultural site, and should not require ongoing maintenance actions beyond what can reasonably be guaranteed in the context of Antarctic logistics.

Integrated Protection

- 4.6 Maintenance and conservation methods for the protection of sites with archaeological research or cultural heritage values should be an integral component of any land use, development, planning, scientific investigations, or cultural, environmental and educational policies that relate to them.
- 4.7 The policies for the protection of Antarctica's archaeological evidence should be reviewed at regular intervals to ensure that they remain up to date. Actions to protect sites and areas containing significant archaeological evidence should, where appropriate, be considered within existing mechanisms for Historic Sites and Monuments Listing (HSM), Antarctic Specially Protected Area (ASPA) and Antarctic Specially Managed Area (ASMA), or through explicit undertaking by State Parties for the protection of sites of special meaning to them.
- 4.8 Any proposed project or development that threatens archaeological evidence or its landscape context should include in its planning phase the full assessment of their research and cultural heritage values (in keeping with Antarctic Treaty system's environmental assessment and clean-up protocols). If such values are demonstrated to exist the investigation of feasible alternative design approaches that avoid the threat are encouraged, together with any necessary archaeological or conservation work either to protect the site from damage in part or whole, or to record and salvage the contained archaeological information should adverse impacts be unavoidable.
- 4.9 Any management plans developed for sites containing archaeological evidence should include a Risk Preparedness Plan to assess and document the potential risks to long-term protection. This should include considering impacts resulting from climate change, a variety of human activities, and the potential destruction or damage that could occur in the event of extreme events (including storms, tectonic or glacial tsunamis, volcanic eruptions and ice quakes). Actions that would avoid, mitigate or aid recovery from such disturbance should be outlined.
- 4.10 The irretrievable dispersal of Antarctica's archaeological artefacts through uncontrolled pilfering, and the commercial exploitation of artefacts for trade or speculation, are fundamentally incompatible with the protection and proper management of Antarctica's cultural heritage, with international standards, and with the principles of the Antarctic Treaty

system. Artefacts shall not be traded, sold, bought or bartered as commercial goods, outside the international standards established for museum best practice.

5. Presentation and information

- 5.1 The presentation of Antarctic archaeological evidence to the general public is an essential method of promoting an understanding of the human history of Antarctica. As a result of the geographical isolation of Antarctica, monuments and sites are not physically accessible to the vast majority of the public and, except in cases where authorised tourism makes sites accessible, on-site interpretation is not effective in reaching wider target audiences. The role of publications, films, web-based interpretation and virtual reality programs should, therefore, be considered as the primary means of presentation and providing information. The inclusion of presentation and information packages should be encouraged as part of the program funding of archaeological and conservation works in Antarctica.
- 5.2 The creation of inventories and databases of archaeological evidence as tools in the dissemination of information about both Antarctica's history and the role of archaeology in revealing it, is as yet in its infancy but their ongoing development is strongly encouraged.

Guidelines Conclude

APPENDIX 1

DEFINITIONS

1. The **Antarctic Treaty system (ATS)** means the Antarctic Treaty, the measures in effect under that Treaty, its associated separate international instruments in force and the measures in effect under those instruments (as defined in Art. 1 of the Protocol on Environmental Protection to the Antarctic Treaty (1991) (the Environmental Protocol, or Madrid Protocol).
2. **Archaeology** is the study of the past and human behaviour through physical evidence and provides a means of enhancing our understanding of human interaction in, and with, Antarctica over time. Archaeological research may involve a wide range of techniques and disciplines that have to be coordinated and integrated effectively, including among others archival and historical research, remote sensing, survey and recording techniques, excavation techniques, materials conservation, architectural analysis, fauna and flora analysis, geomorphology and genetic and chemical analysis.
3. **Archaeological evidence** in its broadest definition comprises the physical evidence of all human activities of the past in Antarctica. Not all such evidence, however, is significant for research or for cultural heritage reasons, and these Guidelines are aimed at making that distinction evident for management and conservation decision making. Sites having ‘archaeological evidence’ are often called ‘archaeological sites’; artefacts in deposits or on the surface are archaeological evidence.
4. **Archaeological value** relates to the presence of physical evidence that contributes to cultural heritage values as a scientific value (see below), or that has potential independent of heritage conservation issues to provide meaningful information through scientific investigation using archaeological techniques. This might include investigation of questions about such things as historical human activities, technological change, or human interactions with the environment, that might involve one or more sites, and potentially a combination of types of sites (such as shipwreck remains and associated survivor camp sites). Sites with this potential have **archaeological research value**. A site may have archaeological research value without having cultural heritage values that warrant long-term conservation: the archaeological research value may be exhausted after archaeological research is completed or as a result of other actions, as, for example, in the case of salvage archaeology where the site is subsequently destroyed by natural causes or development, or where sites or artefacts are subsequently removed in compliance with the Environmental Protocol (Annex III), or where the research itself demonstrates that no lasting research or broader cultural heritage values exist.
5. The **cultural heritage values** of a site (as distinct from natural heritage values) incorporate a range of attributes that include historic, social, aesthetic and scientific values (including archaeological values), and require assessment and conservation planning processes that should involve a range of relevant heritage professionals. **Conservation archaeology** is the application of archaeological methodologies to the investigation of archaeological evidence associated with sites or buildings that have been assessed as being of heritage significance and warranting conservation.

Please refer to attached Flowchart