ICOMOS

Guidance on
Heritage Impact Assessments
for Cultural World Heritage Properties

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Guidance on Heritage Impact Assessments for Cultural World Heritage Properties

Purpose

To offer guidance on the process of commissioning HERITAGE IMPACT ASSESSMENTS (HIAs) for World Heritage (WH) properties in order to evaluate effectively the impact of potential development on the Outstanding Universal Value (OUV) of properties.

The guidance is addressed at managers, developers, consultants and decision-makers and is also intended to be relevant to the World Heritage Committee and States Parties.

The concept of OUV underpins the whole World Heritage Convention and all activities associated with properties inscribed on the List.

The World Heritage Convention, for the protection of World's Cultural & Natural Heritage, which came into being in 1972, recognises properties of **'Outstanding Universal Value'** which are part of the "world heritage of mankind as a whole" and deserve "protection and transmission to future generations". Such properties are recognised through inscription on the World Heritage list by the World Heritage Committee, which consists of representatives from 21 States Parties.

Their OUV is fixed by the World Heritage Committee at the time of inscription and since 2007 has been encapsulated in a Statement of OUV. **OUV thus defines the thinking at the time of inscription and is non-negotiable.**

The World Heritage Convention is ratified by States Parties, who agree to conserve properties on their territories that are seen to be of OUV, and thus contribute towards protecting the shared heritage of humanity. This means that OUV needs to be sustained over time through the protection of attributes that are seen to convey OUV.

World Heritage sites are thus single heritage assets with an international value that has been clearly articulated. Not everything within them contributes to OUV, but those attributes that do must be appropriately protected.

This guidance sets out a methodology to allow HIAs to respond to the needs of World Heritage sites, through considering them as discrete entities and evaluating impact on the attributes of OUV in a systematic and coherent way.

The Guidance was developed following an international workshop organised by ICOMOS in Paris in September 2009.

Contents

1   Background

In recent years the UNESCO World Heritage Committee has addressed considerable numbers of State of Conservation Reports related to threats to World Heritage properties from various forms of large-scale development. These developments include roads, bridges, tall buildings, "box" buildings (e.g. malls), inappropriate, acontextual or insensitive developments, renewals, demolitions and new infrastructure typologies like wind farms, as well as land-use policy changes and large scale urban frameworks. The Committee has also examined threats from excessive or inappropriate tourism. Many of these projects have had the potential to impact adversely on the appearance, skyline, key views and other different attributes that contribute to Outstanding Universal Value (OUV).

In order for the ICOMOS and the Committee to evaluate satisfactorily these potential threats, there is a need to be specific about the impacts of proposed changes on OUV. While heritage impact assessment exists in many countries, these seem less reliably used in the World Heritage context.

Where formal evaluations are undertaken, many of these make use of procedures for environmental impact assessment (EIA). Whilst there is merit at looking at the experience of EIA, this is not likely to be immediately useful without some adaptation. EIA frequently disaggregates all the possible cultural heritage attributes and assesses impact on them separately, through discrete receptors such as protected buildings, archaeological sites, and specified view-points with their view cones, without applying the lens of OUV to the overall ensemble of attributes. A more global approach to the site is required, one directly linked to the expression of the site's OUV.

EIA therefore often produces disappointing results when applied to cultural World Heritage properties as the assessment of impacts is not clearly and directly tied to the attributes of OUV. Cumulative impacts and incremental changes (adverse) may also more easily pass undetected. The recent work done to assess the impacts of the proposed bridge on the World Heritage site of the Middle Rhine Valley is an example of this problem.

Currently, there are limited formal tools for identifying receptors and for assessing impact and few examples of excellence for Heritage Impact Assessment (HIA) undertaken for cultural WH properties. However, progress in 3D virtual representations and digital tools open new means to operate HIA.

a) World Heritage context within which HIA are undertaken

World Heritage properties need to be seen as single entities that manifest OUV. Their OUV is reflected in a range of attributes, and in order to sustain OUV it is those attributes that need to be protected. Thus the HIA process needs to consider the impact of any proposed project or change on those attributes, both individually and collectively, rather than on a standard range of receptors.

The development of Statements of OUV (SoOUV) for all World Heritage properties, a requirement set out in the *Operational Guidelines for the implementation of the World Heritage Convention* (UNESC0, 2008) paragraph 154-5, should assist through setting out clearly the attributes that reflect OUV and the links between them.   The examination of integrity and authenticity is also a useful starting point.

In terms of assessing the effect of any impact on OUV, concepts such as 'limits of acceptable change' and 'absorption capacity' are being discussed, although there is no consensus yet on the usefulness of these concepts, or on how to operationalise them. There is also no consensus on how to revive heritage value that has been eroded.

Numerous visual assessment tools have been adapted to the assessment of impacts of proposed developments on the OUV of various World Heritage properties, especially those located within dynamic urban contexts, but so far these have rarely been linked to a more in-depth assessment of impact on all the attributes of OUV. There are also new tools on recording and mapping intangible heritage and multiple layers of attributes that have not been exploited for use in WH properties.

World Heritage properties are very diverse, as are the potential impacts. Although development of new tools is potentially useful, for the foreseeable future, impact assessment processes need to be able to access a variety of existing tools, without relying entirely on any one of them.

The 2nd cycle of the World Heritage Periodic Reporting should provide ICOMOS with a new data set relevant to this issue. The goal to have SoOUVs for all World Heritage properties by 2012 will also be an important underpinning of the guidance provided by ICOMOS.

b) The diverse regulatory, planning and management contexts

Neither EIA nor HIA are mandated in many countries and there is often no national regulatory framework within which they can operate.

The capacity of heritage authorities varies globally and some are not strong within the national government structures. In some countries there are strong environmental systems that provide a basis for EIA, but the heritage elements (including World Heritage) are underdeveloped or non-existent. In others, HIA are undertaken but the identified "triggers" for their use are often basic (usually in the form of lists of activities) or age.

This guidance aims to support the use and influence of HIAs, even where there are few legal structures that support the EIA/HIA processes.

Industry codes of practice should be influential in ensuring that HIA processes occur, and that the methods employed meet internationally-recognised standards of practice.

However, in many countries specific sectors considered to be of national interest are permitted to override EIA or HIA requirements.

Management plans for WH properties are potentially very important. They should be well anchored in planning arrangements at national, regional and local levels, and although embedded in national systems of protection in different ways, could be utilised more to define how change will be assessed. The sustainable development of WH properties is extremely important, including the protection of OUV elements. If the management plan is sufficiently robust and has undergone a thorough consultation process in its development, it should be possible to implement cooperative approaches to potential problems within the framework of the plan.

Potential threats should be anticipated in the management system in a property-specific way – not "one size fits all". Conservation policies embedded in the management system may also be used as a measure to assess potential adverse impacts.

A large number of World Heritage properties do not have a well-functioning management system (for some even where there is a management plan). This is an underlying issue for many properties selected for State of Conservation reporting.

c) Tools, resources and capacities needed to undertake a HIA

State of the art techniques are possible in many countries, but in many others, the levels of skills, knowledge and resources are quite basic. This guidance attempts to be applicable to all situations.

The skills required to do a HIA, using modern IT based and highly technical tools are only held by a limited number of people. These can be very helpful, particularly in complex situations, but HIA should not depend on them. On the other hand, diffusion of new HIA tools should be encouraged when their efficiency is proven.

In some cases, the level of analysis undertaken is very deep and expensive to produce but the outcome is difficult to understand and to operationalise. A key issue is identifying the optimum resources to get the job done, and not requiring more than is necessary.

Training of managers and staff at World Heritage properties and in the approvals agencies of all levels of government within a country will be important in order to ensure that the commissioning process for HIA is appropriate and that full and effective use is made of the output.

The backgrounds and professional skills of those who conduct HIA are diverse, but training and capacity-building will often be needed. Single professionals cannot always do a total HIA – there is most often a need to bring together an HIA team with the specific analytical skills needed for a particular project or site. A number of professional environmental management institutions provide archiving and other tools. In some circumstance opportunities for partnerships could be explored.

Although proposals for WH nominations should make sure adequate data and documentation are in place, and that realistic and relevant monitoring arrangements are in use, there is often a lack of baseline documentation.

Good documentation does not require a Geographic Information System (GIS), although this has been a powerful and useful tool where it is available. All approaches need to be systematic and follow rational guidelines.

2   Suggested procedures for Heritage Impact Assessment

2-1   Introduction

2-1-1 This section is intended to help to States Parties, heritage managers and decision-makers or others in managing their WH properties in circumstances where some form of change may affect the Outstanding Universal Value (OUV) of those sites. Change may be adverse or beneficial, but both need to be assessed as objectively as possible, against the stated OUV as reference point.

2-1-2 The guidance is a tool to encourage managers and decision-makers to think about key aspects of heritage management and to make decisions based on evidence within the framework of the 1972 World Heritage Convention. It is also designed to encourage potential developers or other agents of change to consider key factors at an appropriate time and at an appropriate level of detail. Heritage Impact Assessments (HIAs) may also be useful in the general management of cultural WH properties by collating information at a given point in time.

2-1-3 There are many ways of assessing impact on heritage assets, some formalised in law, some very technical and sophisticated, others less so. This guidance sets down some principles and options. But whatever route is chosen, the assessment must be "fit-for-purpose" – suitable for the WH property and for the changes proposed, and suitable to the local environment. It must provide the evidence on which decisions can be made in a clear, transparent and practicable way.

2-1-4 In any proposal for change there will be many factors to be considered. Balanced and justifiable decisions about change depend upon understanding who values a place and why they do so. This leads to a clear statement of a place's significance and with it the ability to understand the impact of the proposed change on that significance.

2-1-5 In the case of WH properties, their international significance is established at the time of inscription and defined as their Outstanding Universal Value (OUV). States Parties undertake to retain and guard this OUV through protecting and conserving the attributes that convey OUV. The Statement of Outstanding Universal Value (SoOUV) which sets out why a property is deemed to have OUV and what the attributes are that convey OUV will be central to the HIA. Every reasonable effort should be made to eliminate or minimise adverse impacts on significant places. Ultimately, however, it may be necessary to balance the public benefit of the proposed change against the harm to the place. It is therefore also important to know who benefits from the proposed change and for what reasons. In such cases the weight given to heritage values should be proportionate to the significance of the place and the impact of the change upon it. WH properties *de facto* are seen to have global value and thus logically have a higher significance that national or local heritage value.

2-1-6 Where change may affect the OUV of a WH property, consideration of the cultural [and/or natural] heritage attributes should be central to planning any proposal and should be presented early on in any general assessment (such as an Environmental Impact Assessment - EIA). Managers and decision-makers should consider whether the heritage conservation needs should be given greater weight than competing uses and developments. A key consideration is the threat or risk to the WH status and this should be clearly addressed in the HIA report.

2-1-7 Where statutory environmental impact assessments apply, the cultural heritage sections must take account of this ICOMOS guidance where the EIA relates to a WH property. An HIA undertaken as part of an EIA in these circumstances is not additional to normal EIA requirements, but uses a different methodology which clearly focuses on OUV and attributes that convey that OUV. The HIA should be summarised early on in the Environmental Statement, and the full technical HIA report should be included as a technical appendix. The requirements should be made clear at the planning or scoping stage. ICOMOS and the World Heritage Centre will encourage States Parties to ensure that HIAs in line with this guidance are undertaken in line with best practice. Where cultural heritage sections of EIAs clearly do not focus on the attributes of OUV, they would not meet desired standards in managing change at WH properties.

2-2 Understanding what needs to be undertaken before starting an HIA

2-2-1 The assessment process is in essence very simple:
- What is the heritage at risk and why is it important – how does it contribute to OUV?
- How will change or a development proposal impact on OUV?

- How can these effects be avoided, reduced, rehabilitated or compensated?

2-2-2   The overall process is summarised in Appendix 1, but key elements include early and continued consultation with all relevant parties and agreement on the scope and expectations of the HIA before work commences. It is also important to identify possible negative impacts very early on in the process, in order to inform both the development design and the planning process in a pro-active rather than reactive manner.

2-2-3   The basis for management and decision making is a good understanding of the WH property, its significance and OUV, its attributes and its context. The Management Plan will often be the important first step in building an ability to have clear and effective impact assessments. Establishment of baseline data about the WH property and its condition is critical.

2-2-4   The starting point for any heritage assessment, once an initial development proposal or change of use is identified, should be to set out the scope of work necessary for an HIA which will provide the evidence for decision-making. Early consultation with relevant parties, including any affected community, is important. The HIA may also be useful in collating information about WH properties not otherwise easily accessible. HIA is a useful cooperative tool for all stakeholders.

2-2-5   A Scoping Report (or HIA brief) should be agreed with all relevant parties – the State Party, regional or local government, heritage advisors or managers, local communities or others as necessary. The scoping report should make it clear what is to be done, why and how, when and what are the expected outputs. It is important to include an agreed calendar between all stakeholders and the development programme (Appendix 2)

2-2-6   The Scoping Report should provide an outline description of the WH property and set out its OUV. It should have an outline of the proposed change or development including the need for change or development, a summary of the conditions present on the site and its environs, details of any alternative development being considered, an outline methodology and terms of reference for the HIA. The methodology should include organisations or people to be consulted, determining, for example, who are stakeholders and who is part of a heritage community related to the site, details of the baseline information to be collected including methods and appropriate study areas, likely sensitive heritage receptors and proposed survey and assessment methodology. It is also important at this stage to identify whether the proposed development is within a WH property or within a buffer zone or within the setting of the property but outside both. A Scoping Report should be used to flag large or critical impacts – the full HIA Report can then assess any positive reaction in terms of the altered development.

2-2-7   The Scoping Report should also give (as far as is practicable) a clear indication of what knowledge exists about the site and where lacunae exist – how good is the information base and what level of confidence may be placed on the assessment. This should be followed through in the actual assessment itself.

2-2-8   It is not only big developments that need an assessment of impact. WH properties may also be vulnerable to changes of policy which could have significant consequences – for example changes in land use and urban planning policies. Tourism infrastructure and increased visits may have unintended consequences. Major archaeological excavations could also

adversely affect the OUV of properties, though possibly compensating by the gaining of knowledge.

2-2-9   It is also important at this stage to ensure that organisations or individuals undertaking the HIA are suitably qualified and experienced, and that their expertise matches the demands of the site, its material and intangible content, its OUV and the nature and extent of the proposed changes. Single professionals can rarely do a total HIA, and the composition of the HIA team - heritage professionals and all other necessary competences - is crucial: the team will need specific analytical skills for a particular project or site. Opportunities for partnerships could be explored. This may also bring benefits in terms of developing capacity for HIA, and in developing and sharing best practice.

3   Data and documentation

3-1   There are no agreed minimum standards for inventories, data review or condition surveys, though it may in due course be useful to define these. Such matters need to be proportionate to the property and its management needs.   It is desirable that the HIA documentation stage is as comprehensive as possible, including developing an archive.

3-2   For WH properties the core documentation is the Statement of OUV and the identification of attributes that convey OUV. Hence this guidance concentrates on identifying impact on attributes that convey that OUV. However, the HIA should collect and collate information on all aspects and attributes of the cultural heritage within the agreed study area, so that the historical development of the property, its context, setting and where appropriate other values (for example national and local) can be fully understood.

3-3   It is useful, if not essential, to document and manage the collection of data. Assessment processes can be very lengthy and data sources may require periodic "refreshment". When data sources are in a state of flux or the timetable for assessment is lengthy, it may be necessary to agree a "data freeze" so that the HIA team can compare like with like information.

3-4   Inventories should be included in the HIA reports, as tables or gazetteers in appendices to the main text. Underpinning archives of material and information collected should be retained for future use and properly referenced, including location and accessibility. Good documentation does not require sophisticated techniques such as GIS or complex databases; it needs a common sense, systematic and consistent approach which is suitable to the needs of the property.

3-5   In more complex cases, more sophisticated approaches could be considered. However, the use of databases and GIS, or 3D-modelling, changes the way in which HIAs are undertaken. The systems allow assessment to be a far more iterative process, and as a result HIA can be more effectively fed back into the design processes. But this also allows for more "what if" scenarios to be requested of the HIA team. The scoping report would need to set down the principles for this iteration so that the HIA team can work effectively.

4 Methods and approaches appropriate to the property - optimising available tools, techniques and resources

4-1   The collection of information during HIA should consider all potential sources of data. Techniques will include desk study or historical research, and site visits to check condition, authenticity and integrity, sensitive viewpoints and so on. They may include terrain modelling, or inter-visibility modelling to predict impacts on heritage assets. It is necessary to capture and explain in clear text evidence of both tangible and intangible heritage attributes, and wherever possible to relate the latter to the physical features which embody them.

4-2   Field studies are also generally essential to ensure that the HIA is robust. Techniques should be linked to the development proposal and could include non-intrusive evaluation or field testing by topographic survey, geophysical survey, virtual 3D scale models or more intrusive methods such as artefact collection, scientific survey, test pitting or trial trenching. In some circumstances the collection of oral histories or evidence may also be valid and useful.

4-3   The data collection must enable the heritage attributes to be quantified and characterised, and allow their vulnerability to proposed changes to be established. It is also necessary to look at the interrelationship/s between discrete heritage resources, in order to understand the whole. There is often a relationship between a material aspect and an intangible aspect which must be brought to the fore.

4-4   Collection of information during the HIA is an iterative process which can often lead to the emergence of alternatives and options for the development proposal.

4-5   Understanding the full meaning of the OUV of a WH property (and other values of heritage) is a crucial part of the HIA process. The evaluation of the overall significance of the effect (overall impact) is a function of the heritage value and assessment of scale of changes and impact.

4-6   When describing WH properties, it is essential to start by describing the attributes of OUV. This is the "baseline data" against which impacts must be measured, and includes both tangible and intangible aspects. A statement of condition may be useful for each key attribute of OUV.

4-7   However, while the SoOUV is an essential starting point, sometimes they are not detailed enough in terms of attributes to be directly useful to impact assessment work. Each property will need to be assessed and where necessary, the attributes may need to be more specifically defined during the HIA process.

4-8   Such definition of attributes should not seek to re-define the SoOUV, but to describe the attributes in a way which assists decision-making on the proposed change. It should be noted that OUV is defined at the time a WH property is inscribed on the WH List and cannot be changed without a re-nomination which goes through a full evaluation process.

4-9   The production of location or themed maps or plan views is almost always needed to demonstrate the findings and issues raised. Spatial rendering is useful to show the disposition of attributes, the relationships between the attributes (which may be processes), and the associations   attributes have such as visual, historical, religious, communal, aesthetic or evidential. It is necessary to link the attributes back to the components of the SoOUV in a clear and readable manner, which does not oversimplify but retains cultural or other complexities in synoptic statements or diagrams. HIA teams should, however, be wary of too much reliance on maps, as our human experience of places is in 3D – ground-truthing is always required to check spatial relationships.

4-10 One option for assessing value is set out in Appendix 3A. In this system the value of heritage attributes is assessed in relation to statutory designations, international or national, and priorities or recommendations set out in national research agendas, and ascribed values. Professional judgement is then used to determine the importance of the resource. Whilst this method should be used as objectively as possible, qualitative assessment using professional judgement is inevitably involved. The value of the asset may be defined using the following grading scale:
- Very High
- High
- Medium
- Low
- Negligible
- Unknown

4-11 In the HIA Report there should be a clear and comprehensive text description of individual and/or groups of heritage attributes, which sets out their individual and/or collective condition, importance, inter-relationships and sensitivity, and possibly also an indication of capacity for change. This should be accompanied by appropriate mapping to aid the reader. All heritage elements should be included, but the components contributing to the WH property's OUV will be particularly relevant and may merit a further detailed section. A detailed inventory should be included in supporting appendices or reports so that the reader may check the assessment of each element. An example is included in Appendix 3C.

5   A defendable system for assessing/evaluating impact

5-1 Effects on cultural heritage attributes from development or other changes may be adverse or beneficial. It is necessary to identify all changes on all attributes, especially those attributes which give the property its OUV, on which this guidance concentrates. It is also important to identify the scale or severity of a specific change or impact on a specific attribute – as this combination is what defines the significance of the impact, otherwise called "significance of effect".

5-2 There is sometimes a tendency to see impacts as primarily visual. While visual impacts are often very sensitive, a broad approach is needed as outlined in the ICOMOS Xi'an Declaration. Impacts take many forms – they may be direct and indirect; cumulative, temporary and permanent, reversible or irreversible, visual, physical, social and cultural, even economic. Impacts may arise as a consequence of construction or operation of the proposed development. Each needs to be considered for its relevance to the HIA.

5-3 Direct impacts are those that arise as a primary consequence of the proposed development or change of use. Direct impacts can result in the physical loss of part or all of an attribute, and/or changes to its setting - the surroundings in which a place is experienced, its local context, embracing present and past relationships to the adjacent landscape. In the process of identifying direct impacts care must be taken of the development technique of gaining approvals by just avoiding direct impact - impacts which just "miss" physical resources can be just as negative to a single resource, a pattern, ensemble, setting, spirit of place etc.

5-4 Direct impacts resulting in physical loss are usually permanent and irreversible; they normally occur as a consequence of construction and are usually confined within the development footprint. The scale or magnitude of these impacts will depend on the proportion of the attribute affected, and whether its key characteristics or relation to OUV would be affected.

5-5 Direct impacts that affect the setting of an attribute may occur as a consequence of construction or operation of the development scheme and may have an effect

some distance from the development. Assessment of impacts on setting refers to perceptible visual and aural (noise) effects that can be appreciated at a given time. Such impacts may be temporary or permanent, reversible or irreversible depending on the extent to which the cause of the impact can be removed. Impacts may also be transient where occurrence is sporadic or of limited duration, for example, related to hours of operation or the frequency of passage of vehicles.

5-6   Indirect impacts occur as a secondary consequence of construction or operation of the development, and can result in physical loss or changes to the setting of an asset beyond the development footprint. For example, construction of related infrastructure such as roads or powerlines that are required to support the development. Facilitated impacts should also be considered which may be further actions (including by third parties) which are made possible or facilitated by the development.

5-7   Scale or severity of impacts or changes can be judged taking into account their direct and indirect effects and whether they are temporary or permanent, reversible or irreversible. The cumulative effect of separate impacts should also be considered. The scale or severity of impact can be ranked without regard to the value of the asset as:
- No change
- Negligible change
- Minor change
- Moderate change
- Major change

5-8   The significance of the effect of change – i.e. the overall impact - on an attribute is a function of the importance of the attribute and the scale of change. This can be summarized for each attribute described using the following descriptors. As change or impacts may be adverse or beneficial, there is a nine-point scale with "neutral" as its centre point:
- Major beneficial
- Moderate beneficial
- Minor beneficial
- Negligible beneficial
- Neutral
- Negligible adverse
- Minor adverse
- Moderate adverse
- Major adverse

VALUE OF HERITAGE ASSET	SCALE & SEVERITY OF CHANGE/IMPACT				
	No Change	Negligible change	Minor change	Moderate change	Major change
For WH properties Very High – attributes which convey OUV	SIGNIFICANCE OF EFFECT OR OVERALL IMPACT (EITHER ADVERSE OR BENEFICIAL)				
	Neutral	Slight	Moderate/ Large	Large/very Large	Very Large

For other heritage assets or attributes	SIGNIFICANCE OF IMPACT (EITHER ADVERSE OR BENEFICIAL)				
Very High	Neutral	Slight	Moderate/ Large	Large/very Large	Very Large
High	Neutral	Slight	Moderate/ Slight	Moderate/ Large	Large/Very Large
Medium	Neutral	Neutral/Slight	Slight	Moderate	Moderate/ Large
Low	Neutral	Neutral/Slight	Neutral/Slight	Slight	Slight/ Moderate
Negligible	Neutral	Neutral	Neutral/Slight	Neutral/Slight	Slight

5-9   For example:
- Total demolition of a key building which is the main conveyance of OUV for a WH property to make way for a new road would be a major adverse effect or overall major adverse impact.
- Removal of a later road from the immediate vicinity of a key building which conveys OUV and which is not directly related to its OUV attributes would be a major beneficial effect or overall impact.

5-10   The table above is a summary to aid assessment of impact. The HIA Report will need to show the assessment for each OUV attribute – for example in a simple table - and demonstrate how the results for each individual or collective heritage attribute have been obtained. This should include qualitative as well as quantitative evaluation.

5-11   Proposals should be tested against existing policy frameworks and the management plan for the property and surrounding area. The compatibility of the scale, pattern, use, etc should be tested according to the attributes of the property that convey OUV and other assets. Issues such as sight lines, architectural type, volumes and surface appearances, settlement form, functional uses and persistence through time etc might be relevant. In all this, it is necessary to match the attributes of the development to the attributes of the site, so that development is complementary and even enhancing to the property.

5-12   Changes arising from developments must also be assessed for their impact on integrity and authenticity. The property should have baseline statements regarding integrity and authenticity at the time of inscription, or at the time the retrospective SoOUV was undertaken [paragraphs 79-88 in   *Operational Guidelines*]. The relationship between attributes of OUV, authenticity and integrity needs to be understood and needs to be shown to be understood in the HIA report. Authenticity relates to the way attributes convey OUV and integrity relates to whether all the attributes that convey OUV are extant within the property and not eroded or under threat.

5-13 Benefits and dis-benefits – or adverse effects - must be very carefully considered. There are a range of benefits and dis-benefits, and the question of who receives the benefits (or misses out through the benefits) is important. Often the property itself and the associated communities do not receive the benefits flowing from development. Financial consequences of the assessment are also important and often directly influence decisions. The analysis must reveal rather than disguise these complexities. The conservation of the property should be counted within the benefits of a project, so that projects that are supportive of conservation can be weighted more than those that do not.

6 Can impacts be avoided, reduced, rehabilitated or compensated – mitigation?

6-1 Impact assessment is an iterative process. Results of data collection and evaluation should be fed back into the design process for the development, or proposals for change or for archaeological investigation.

6-2 Conservation is about managing sustainable change. Every reasonable effort should be made to avoid, eliminate or minimise adverse impacts on attributes that convey OUV and other significant places. Ultimately, however, it may be necessary to balance the public benefit of the proposed change against the harm to the place. In the case of WH properties this balance is crucial.

6-3 HIA should include proposed principles and where possible proposed methods to mitigate or offset the effects of a development proposal or other agent of change. This should include consideration of other options for the development including site selection/location, timing, duration and design. The HIA should indicate fully how the mitigation is acceptable in the context of sustaining OUV, including the authenticity and integrity of the WH property. Available guidance in the *Operational Guidelines* on periodic reporting should be consulted to help this process.

6-4 It may be appropriate to undertake further consultation at this stage before finalising the HIA.

7 Deliver an evaluation that is helpful to States Parties, the Advisory Bodies and the World Heritage Committee, and relevant to the World Heritage context in general and specific properties in particular

7-1 Appendix 4 sets out a guide to the contents of an HIA report. It is a matter of expert judgement, following suitable consultation and scoping to define exact requirements.

7-2 The HIA report should provide the evidence on which decisions can be made in a clear, transparent and practicable way. The level of detail needed will depend on the site and proposed changes. The Statement of OUV will be central to the evaluation of the impacts and risk to the property.

7-3 The HIA report will need to show
- A comprehensive understanding of the WH property and its OUV, authenticity and integrity, condition, context (including other heritage attributes) and inter-relationships;
- An understanding of the range of impacts arising from the development or other proposal for change;

- An objective evaluation of those impacts (beneficial and adverse) on the heritage elements and in particular on the site's OUV, integrity and authenticity;
- An assessment of the risk posed to the retention of OUV and the likelihood that the property may be in potential or actual danger;
- A statement of heritage benefits which may arise from proposals including better knowledge and understanding and awareness-raising;
- Clear guidelines as to how impact can be mitigated or avoided;
- Supporting evidence in the form of a suitably detailed inventory of attributes of OUV and other heritage assets, impacts, survey or scientific studies, illustrations and photographs.

7-4   The HIA Report will need to have a non-technical summary clearly setting out all relevant matters, a detailed text description and analysis and a text summary of the results of the evaluation of impact accompanied by tables to assist the reader.

Appendix 1: Heritage Impact Assessment Process

Stages of HIA
Initial development and design
Early consultation
Identify and recruit suitable organisations to undertake works
Establish study area
Establish scope of work
Collect data
Collate data
Characterise the heritage resource, especially in identifying attributes that convey OUV
Model and assess impacts, direct and indirect
Draft mitigation – avoid, reduce, rehabilitate or compensate
Draft report
Consultation
Moderate the assessment results and mitigation
Final reporting and illustration – to inform decisions
Mitigation
Dissemination of results and knowledge gained

Appendix 2: Scoping Report Contents

At the outset of any proposed impact assessment it is desirable to agree the scope of the work needed so that the work is 'fit-for-purpose' and will enable decision to be made. Early consultation is essential.

The scope should be agreed with all relevant parties, including the State Party, regional or local government or its agencies, any statutory consultees and local community representatives and the public. In some cases it may be also desirable to consult with the WHC or its advisors, ICOMOS or IUCN.

The "developer" is responsible for producing the scoping report. Its contents should include

- An outline description of the proposed change or development, providing as much detail as is available at the time of writing;
- A summary of the conditions present on the site and its environs, based on information collated to that point in time;
- The Statement of Outstanding Universal Value
- Details of how alternatives to changes are being considered;
- Outline methodology and terms of reference for the HIA as a whole;
- The organisations/people consulted and to be consulted further;
- A topic by topic assessment of the key impacts of the development; this should include:
  - details (as known) of the baseline conditions;
  - consideration of the potential effects of the development where overall impacts or effects are not considered to be significant, a justification of why they should be "scoped out" of the HIA;
  - where overall impacts are considered to be potentially significant, details of the baseline information to be collected (including methods and appropriate study areas), likely sensitive heritage receptors in particular those related to attributes of OUV and proposed survey and assessment methodology.
- A negotiated calendar covering the whole process, including deadlines for reporting and consultation.

Appendix 3A: Example Guide for Assessing Value of Heritage Assets

HIAs for WH properties will need to consider their international heritage value and also other local or national values, and priorities or recommendations set out in national research agendas. They may also need to consider other international values which are reflected in, for example, international natural heritage designations.

Professional judgement is used to determine the importance of the resource. The value of the asset may be defined using the following grading scale:
- Very High
- High
- Medium
- Low
- Negligible
- Unknown potential.

The following table is not intended to be exhaustive.

Grading	Archaeology	Built heritage or Historic Urban Landscape	Historic landscape	Intangible Cultural Heritage or Associations
Very High	Sites of acknowledged international importance inscribed as WH property. Individual attributes that convey OUV of the WH property. Assets that can contribute significantly to acknowledged international research objectives.	Sites or structures of acknowledged international importance inscribed as of universal importance as WH property. Individual attributes that convey OUV of the WH property. Other buildings or urban landscapes of recognised international importance.	Landscapes of acknowledged international importance inscribed as WH property. Individual attributes that convey OUV of the WH property. Historic landscapes of international value, whether designated or not. Extremely well-preserved historic landscapes with exceptional coherence, time-depth, or other critical factors.	Areas associated with Intangible Cultural heritage activities as evidenced by the national register. Associations with particular innovations, technical or scientific developments or movements of global significance. Associations with particular individuals of global importance

High	Nationally-designated Archaeological Monuments protected by the State Party's laws	Nationally-designated structures with standing remains.	Nationally-designated historic landscape of outstanding interest.	Nationally-designated areas or activities associated with globally-important Intangible Cultural Heritage activities .
	Undesignated sites of the quality and importance to be designated.	Other buildings that can be shown to have exceptional qualities in their fabric or historical associations not adequately reflected in the listing grade.	Undesignated landscapes of outstanding interest.	Associations with particular innovations, technical or scientific developments or movements of national significance
	Assets that can contribute significantly to acknowledged national research objectives.	Conservation Areas containing very Important buildings.	Undesignated landscapes of high quality and importance, and of demonstrable national value.	Associations with particular individuals of national importance
		Undesignated structures of clear national importance.	Well preserved historic landscapes, exhibiting considerable coherence, time-depth or other critical factors.	
Medium	Designated or undesignated assets that can contribute significantly to regional research objectives.	Designated buildings. Historic (unlisted) buildings that can be shown to have exceptional qualities or historical associations.	Designated special historic landscapes.	Areas associated with Intangible Cultural heritage activities as evidenced by local registers.
		Conservation Areas containing buildings that contribute significantly to its historic character.	Undesignated historic landscapes that would justify special historic landscape designation.	Associations with particular innovations or developments of regional or local significance.
		Historic townscapes or built-up areas with important historic integrity in their buildings, or built settings.	Landscapes of regional value.	Associations with particular individuals of regional importance
			Averagely well preserved historic landscapes with reasonable coherence, time-depth or other critical factors.	

Low	Designated or undesignated assets of local importance. Assets compromised by poor preservation and/or poor survival of contextual associations. Assets of limited value, but with potential to contribute to local research objectives.	"Locally Listed" buildings. Historic (unlisted) buildings of modest quality in their fabric or historical associations. Historic Townscape or built-up areas of limited historic integrity in their buildings, or built settings.	Robust undesignated historic landscapes. Historic landscapes with importance to local interest groups. Historic landscapes whose value is limited by poor preservation and/or poor survival of contextual associations.	Intangible Cultural heritage activities of local significance Associations with particular individuals of local importance Poor survival of physical areas in which activities occur or are associated
Negligible	Assets with little or no surviving archaeological interest.	Buildings or urban landscapes of no architectural or historical merit; buildings of an intrusive character.	Landscapes little or no significant historical interest.	Few associations or ICH vestiges surviving
Unknown potential	The importance of the asset has not been ascertained.	Buildings with some hidden (i.e. inaccessible) potential for historic significance.	n/a	Little is known or recorded about ICH of the area

Appendix 3B: Example Guide for assessing magnitude of impact

Impact Grading	Archaeological attributes	Built heritage or Historic Urban Landscape attributes	Historic landscape attributes	Intangible Cultural Heritage attributes or Associations
Major	Changes to attributes that convey OUV of WH properties Most or all key archaeological materials, including those that contribute to OUV such that the resource is totally altered. Comprehensive changes to setting.	Change to key historic building elements that contribute to OUV,, such that the resource is totally altered. Comprehensive changes to the setting.	Change to most or all key historic landscape elements, parcels or components; extreme visual effects; gross change of noise or change to sound quality; fundamental changes to use or access; resulting in total change to historic landscape character unit and loss of OUV.	Major changes to area that affect the ICH activities or associations or visual links and cultural appreciation.

Moderate	Changes to many key archaeological materials, such that the resource is clearly modified. Considerable changes to setting that affect the character of the asset.	Changes to many key historic building elements, such that the resource is significantly modified. Changes to the setting of an historic building, such that it is significantly modified.	Change to many key historic landscape elements, parcels or components; visual change to many key aspects of the historic landscape; noticeable differences in noise or sound quality; considerable changes to use or access; resulting in moderate changes to historic landscape character.	Considerable changes to area that affect the ICH activities or associations or visual links and cultural appreciation.
Minor	Changes to key archaeological materials, such that the resource is slightly altered. Slight changes to setting.	Change to key historic building elements, such that the asset is slightly different. Change to setting of an historic building, such that it is noticeably changed.	Change to few key historic landscape elements, parcels or components; slight visual changes to few key aspects of historic landscape; limited changes to noise levels or sound quality; slight changes to use or access; resulting in limited change to historic landscape character.	Changes to area that affect the ICH activities or associations or visual links and cultural appreciation.
Negligible	Very minor changes to key archaeological materials, or setting.	Slight changes to historic building elements or setting that hardly affect it.	Very minor changes to key historic landscape elements, parcels or components; virtually unchanged visual effects; very slight changes in noise levels or sound quality; very slight changes to use or access; resulting in a very small change to historic landscape character.	Very minor changes to area that affect the ICH activities or associations or visual links and cultural appreciation.
No change	No change.	No change to fabric or setting.	No change to elements, parcels or components; no visual or audible changes; no changes in amenity or community factors.	No change

Appendix 3C: Example Inventory Entry

The following list gives a suggested set of data fields which could be used in supporting tables or inventories which collate information on an individual or group of heritage assets.

Unique Identity number
Asset name
Location (map reference)
Type of asset (burial mound, church, fort, landscape, ICH etc)
Date
Statutory designation (e.g. on national or local register, WHS)
Brief description
Condition
Authenticity
Integrity
Inter-relationships (list)
Sensitivity
Importance (Very high, high,
Development magnitude of impact – construction (Major, Moderate, Minor, Negligible, No change)
Development significance of effect – construction (Major beneficial, Moderate beneficial, Minor beneficial, Negligible beneficial; No Change, Negligible adverse, Minor adverse, Moderate adverse, Major adverse)
Operational magnitude of impact (as above)
Operational significance of effect

Appendix 4: Heritage Impact Report Contents

The HIA Report should provide the evidence on which decisions can be made in a clear, transparent and practicable way. The level of detail needed will depend on the site and proposed changes. The Statement of OUV will be central to the evaluation of the impacts and risk to the site.

The report should include:
- the proper name of the WH property,
- its geographical coordinates,
- the date of inscription,
- the date of the HIA report,
- the name of the organization or entities responsible for preparing the HIA report,
- for whom it was prepared, and
- a statement on whether the report has been externally assessed or peer-reviewed.

Outline report contents

1   Non-technical summary – must contain all key points and be useable alone.

2   Contents

3   Introduction

4   Methodology
- Data sources
- Published works
- Unpublished reports
- Databases
- Field Surveys
- Impact Assessment Methodology
- Scope of Assessment
- Evaluation of Heritage Resource

- Assessment of Scale of Specific Impact and Change
- Evaluation of Overall Impact
- Definition of the Assessment Area

5   Site history and description –
Key in this section will be the Statement of OUV, and a description of the attributes which convey OUV and which contribute to the Statements of authenticity and integrity.

This section should also include any nationally or locally designated sites, monuments or structures as well as non-designated sites. t should set out the historical development of the study area, and describe its character, such as the historic landscape, including field patterns, boundaries and extant historic elements of the landscape and cultural heritage. It should describe the condition of the whole and of individual attributes and components, physical characteristics, sensitive viewpoints and intangible associations which may relate to attributes. This should focus on areas affected in particular but must include a description of the whole.

6   Description of changes or developments proposed

7   Assessment and evaluation of overall impact of the proposed changes

This part should set out an assessment of specific changes and impacts on the attributes of OUV and other heritage assets. It should include a description and assessment of the direct or indirect impacts, including physical impacts, visual, or noise, on individual heritage attributes, assets or elements and associations, and on the whole. Impact on OUV should be evaluated through assessment of impact on the attributes which convey the OUV of the site. It should consider all impacts on all attributes; professional judgement is required in presenting the information in an appropriate form to assist decision-making.

It should also include an evaluation of the overall significance of effect – overall impact - of the proposals for development or change on individual attributes and the whole WH property. This may also need to include an assessment of how the changes may impact on the perception of the site locally, nationally and internationally. I

8   Measures to avoid, to reduce or to compensate for impacts - Mitigation Measures
Such measures include both general and site or asset-specific measures and cover
- those needed before the development or change proceeds (such as archaeological excavation),
- those needed during construction or change (such as a watching brief or physical protection of assets) and
- any post-construction measures during the operation of any proposed change or development (such as interpretation or access measures, awareness-building, education, reconstruction proposals),
- proposals to disseminate information, knowledge or understanding gained by the HIA and any detailed desk, field or scientific studies.

9   Summary and Conclusions, including
- A clear statement on effects on the Outstanding Universal Value of the WHS, its integrity and authenticity,
- The risk to the Inscription of the site as a WH property,
- Any beneficial effects, including better knowledge and understanding and awareness-raising.

10   Bibliography

11   Glossary of terms used

12   Acknowledgements and authorship

13   Illustrations and photographs showing for example
- Location and extent of sites, including buffer zones
- Any study area defined
- Development or proposals for change
- Visual or inter-visibility analyses
- Mitigation measures
- Key sites and views

14   Appendices with detailed data, for example
- Tables of individual sites or elements, summary description and summary of impacts
- Desk studies
- Field study reports (such as geophysical survey, trial evaluation, excavation)
- Scientific studies
- List of consultees and consultation responses
- The scoping statement or project brief.