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## Learning from Loss

A SUII programme bringing together an international team of researchers, heritage professionals, and local stakeholders to explore issues surrounding transformation in the historic environment in the face of climate change

# Briefing summaries

*Documents prepared in advance of the field trip and workshops to provide background information and context. Based on contributions from:*

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## **A. Understanding the legal, policy and practice context**

- i. What are the most important laws and policies that govern how heritage is managed/protected in your country/area?

### **USA**

#### **1906 Antiquities Act**

<https://www.nps.gov/subjects/legal/the-antiquities-act-of-1906.htm>

This Act established that archaeological and historic resources are public resources worthy of care and management. This Act grants authority to the President of the U.S. to protect archaeological and historic resources by declaring them to be national monuments, and that such protection can be extended to archaeological and historic resources on either public or private land. This Act also set the precedent of fining those who damage archaeological or historic resources.

#### ***Mechanism for applying heritage law / policy***

President of the US can protect historic areas by declaring them to be monuments; Congress has authority to elevate presidentially declared monuments to the status of national parks (which increases level of protection, provides increased services for visitor access and interpretation)

#### **1935 Historic Sites Act**

<https://www.nps.gov/history/local-law/hsact35.htm>

[https://www.nps.gov/history/local-law/FHPL\\_HistSites.pdf](https://www.nps.gov/history/local-law/FHPL_HistSites.pdf) (plain language explanation)

This Act provided the basis for gathering monuments, parks, and other historical sites including battlefields (a number of which had been maintained by the War Department) under the care of the National Park Service (which was established in 1916, after the 1906 Antiquities Act). It provides further detail on how to manage archaeological and historic sites, including recognition that these should be managed by the government as a public good. It also provides the basis for documentation standards (which became the Historic American Building Survey [HABS]), and a program for surveying historic buildings (which later became the National Historic Landmarks program).

#### ***Mechanism for applying heritage law / policy***

The provisions of this Act are carried out by the National Park Service.

#### **1966 National Historic Preservation Act**

<https://www.nps.gov/history/local-law/nhpa1966.htm>

This is the big one. This Act established the National Register of Historic Places (which includes criteria for determining which places are significant and should be protected), a system of State Historic Preservation Offices (one in each state, and the District of Columbia and Puerto Rico, and in other US territories). Through its Section 106, it set out the requirement for consultation with stakeholders (tribes, community) regarding impacts of a federal undertaking (which is an action on federal land, using federal money, or which otherwise requires compliance with other federal regulations) on cultural heritage. Through its Section 110, it set the requirement for federal agencies to conduct inventories of cultural resources across all of the property each federal agency manages.

### ***Mechanism for applying heritage law / policy***

NHPA Section 106 requires consideration of the impacts of development (“undertakings”) on significant historic properties (development that is on federal land, is using federal money, or otherwise is required to comply with federal law). Section 106 does not cover historic resources on state or private land that are not part of or impacted by federal undertakings. Most states have state historic preservation laws that mirror the NHPA.

Significance is determined per criteria established by/for the National Register of Historic Places (see below). NPS established and manages the National Register of Historic Places and National Historic Landmark Programs

Section 106 consideration is called consultation, and must engage all stakeholders (tribes, affiliated communities) for the resources within the **area of potential effect** (APE) of the undertaking. APE can include indirect effects, such as viewsheds; effects considered are not limited to the exact footprint of the undertaking.

Section 106 consultation is led by a federal agency in coordination with the relevant **State Historic Preservation Office** (SHPO) and/or **Tribal Historic Preservation Office** (THPO). Relevant research may be conducted by consultants (which is the field of cultural resource management [CRM]). High profile or contentious Section 106 cases are referred to the **Advisory Council on Historic Preservation**. NHPA Section 110 requires federal agencies to inventory cultural resources across all of their territorial holdings.

State Historic Preservation Offices/Tribal Historic Preservation Offices (SHPO/THPO) were established by the NHPA and serve as the lead office for historic preservation in each state. SHPOs and THPOs keep records on all archaeological site locations in the state, track archaeological surveys in the state, manage access to archaeological site location information, oversee compliance with the Secretary of the Interior’s Standards and Guidelines for the Treatment of Historic Properties in their respective states, among other duties.

### **1976 Tax Reform Act, which established the Historic Preservation Tax Incentives Program**

<https://www.nps.gov/tps/tax-incentives.htm>

This Act established a tax credit for building owners who choose to rehabilitate historic buildings, rather than tear them down and build new. This program is now managed jointly by the National Park Service and the Internal Revenue Service (IRS). This program necessitated creation of standards by which rehabilitation projects would be evaluated. These standards, now known as the Secretary of the Interior’s Standards and Guidelines for the Treatment of Historic Properties, are now a standard reference for historic preservation across the U.S., regardless of whether the project is subject to tax credits.

### ***Mechanism for applying heritage law / policy***

The Historic Preservation Tax Incentives Program is managed by the National Park Service, in collaboration with the IRS.

### **1979 Archaeological Resources Protection Act**

<https://www.nps.gov/archeology/tools/laws/arpa.htm>

This Act provides greater clarity around protection of archaeological sites than the Antiquities Act. It sets out requirements for permits to excavate or remove archaeological resources from federal or tribal lands. It is also much clearer in terms of prohibited damage to archaeological resources and sets much higher fines than the Antiquities Act. Amendments in 1988 emphasized the need for public education regarding archaeological resources and more complete surveys of federal lands for archaeology. This Act also restricts publication of archaeological site location information.

### ***Mechanism for applying heritage law / policy***

This Act is enforced by the law enforcement arm of the federal agency on which land given archaeological resources are found (for example, the NPS is responsible for permits and investigating site damage in national parks, the Bureau of Land Management is responsible for archaeological sites on BLM land, and so forth).

### **1990 Native American Grave Protection and Repatriation Act**

<https://www.nps.gov/archeology/tools/laws/nagpra.htm>

This Act sets out the rights of Native Americans, tribes, and Native Hawaiian organizations regarding the treatment and repatriation of Native American human remains, funerary objects, and other sacred objects. It required institutions holding such remains and objects to inventory them and to consult with tribes and Native Hawaiian organizations and reach agreements on their disposition (such as repatriation and reburial). This Act also set out guidelines for treatment of new discoveries of Native American human remains. This Act brought to the fore discussions of what is meant by cultural affiliation.

### ***Mechanism for applying heritage law / policy***

The NPS oversees its own NAGPRA responsibilities and provides support and grants to institutions working to comply with NAGPRA.

### **Florida**

Lands in Florida fall under private ownership, ownership by the U.S. Federal government (national parks, forests, wildlife preserves, wildlife areas, military bases, etc), and ownership by State and local governments (counties, local municipalities). A total of about 26 percent of the state is under public ownership, with about 12.5 percent being Federal and 13.7 percent state. This makes for a complex web of coverage of law and jurisdiction by level of government (federal, state, local) and agencies within each level, and of protection of heritage. In general, private land has the least protection. State agencies that control substantial amount of land include Division of Recreation and Parks (State Parks), Forest Service, Fish and Wildlife Conservation Service, water management districts, and the Division of State Lands.

State laws are incredibly important in the U.S. and are highly variable between states, but generally provide protection and regulation on public lands which may include submerged lands in some cases. In Florida, **Florida Statutes Chapter 267** also known as the Florida Historical Resources Act ([http://www.leg.state.fl.us/Statutes/index.cfm?App\\_mode=Display\\_Statute&URL=0200-0299/0267/0267ContentsIndex.html&StatuteYear=2013&Title=-%3E2013-%3EChapter%20267](http://www.leg.state.fl.us/Statutes/index.cfm?App_mode=Display_Statute&URL=0200-0299/0267/0267ContentsIndex.html&StatuteYear=2013&Title=-%3E2013-%3EChapter%20267)) provides for protection for archaeological sites on public property (including state sovereign submerged

lands, including rivers and offshore in Atlantic and Gulf of Mexico), or on a designated state archaeological landmark zone on private property. Some key parts are:

**267.12 Research permits; procedure.** Provides for permits to conduct archaeological survey and excavation work on public lands. These permits are issued to qualified professional archaeologists with proper institutional facilities and backing, and require proper reporting and deposit of collections and records with the State.

[http://www.leg.state.fl.us/statutes/index.cfm?mode=View%20Statutes&SubMenu=1&App\\_mode=Display\\_Statute&Search\\_String=267.12&URL=0200-0299/0267/Sections/0267.12.html](http://www.leg.state.fl.us/statutes/index.cfm?mode=View%20Statutes&SubMenu=1&App_mode=Display_Statute&Search_String=267.12&URL=0200-0299/0267/Sections/0267.12.html)

**267.13 Prohibited practices; penalties.** Provides for protection of archaeological sites on State lands from any disturbance outside of archaeological work conducted under a research permit.

[http://www.leg.state.fl.us/statutes/index.cfm?mode=View%20Statutes&SubMenu=1&App\\_mode=Display\\_Statute&Search\\_String=267.13&URL=0200-0299/0267/Sections/0267.13.html](http://www.leg.state.fl.us/statutes/index.cfm?mode=View%20Statutes&SubMenu=1&App_mode=Display_Statute&Search_String=267.13&URL=0200-0299/0267/Sections/0267.13.html)

**872.05 Unmarked Human Burials.** This act protects certain unmarked human burials not otherwise protected by being in certain marked cemeteries, and pertains to both public and private lands:

[http://www.leg.state.fl.us/statutes/index.cfm?mode=View%20Statutes&SubMenu=1&App\\_mode=Display\\_Statute&Search\\_String=872.05&URL=0800-0899/0872/Sections/0872.05.html](http://www.leg.state.fl.us/statutes/index.cfm?mode=View%20Statutes&SubMenu=1&App_mode=Display_Statute&Search_String=872.05&URL=0800-0899/0872/Sections/0872.05.html)

The State of Florida Division of Historical Resources also maintains the **Master Site File** (<http://dos.myflorida.com/historical/preservation/master-site-file/>) of recorded archaeological sites, architectural resources, cemeteries, historical bridges, and historic districts, landscapes, and linear features. The file currently contains records of over 200,000 cultural heritage resources and 22,000 supporting manuscripts.

Local governments also provide a very uneven level of heritage protection. There are 67 counties (34 with coastal land) and 410 incorporated municipalities in the state. Most have ordinance, policy, or guidance that refer to heritage in some (such as **county Comprehensive Plans**), but relatively few have specific and meaningful guidance on heritage through ordinance or policy. Even fewer have dedicated archaeological professionals to help with proper implementation of ordinance and policy through direct action, regulatory overview, or contract oversight.

Archaeological site protection at the county and municipal level are listed in the **Florida Preservation Atlas**: <http://www.floridapreservationatlas.usf.edu/> under the Archaeological Site Protections tab. The Atlas was developed by the Florida Public Archaeology Network (<http://www.fpan.us>) in partnership with the University of South Florida Water Institute, Florida Division of Historical Resources, and the Florida Trust for Historic Preservation.

Probably the most active municipal archaeology program in Florida is in St. Augustine: [http://www.citystaug.com/government/planning\\_and\\_building/divisions/archaeology.php](http://www.citystaug.com/government/planning_and_building/divisions/archaeology.php). Several municipal and county governments have preservation planners or archaeologists on staff serving in a variety of capacities with varying degrees of success.

Related to the mechanisms for applying laws in Florida are new state laws requiring local governments to include impacts of sea level rise in planning documents (2015 SB 1094). A total of 195 local governments have **Coastal Management Elements** and **Adaptation Action Areas** are on the rise. For St. Augustine, the **AAA** includes historic properties. This is seen as the current way in for protections for

cultural resources at the local level. In light of recent court cases featuring students/citizens suing the government for negligence in climate change action in violation of public trust, local governments are realizing there is a legal basis for being sued if they remain negligent on addressing climate change impacts.

## **Scotland (heritage)**

### **Properties in care**

<https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=977d19b7-68b8-431d-a628-a84200b6464c>

### **The Historic Environment Scotland Act 2014**

The [Historic Environment Scotland Act 2014](#) sets out Historic Environment Scotland's role and legal status, including changes in processes for the designation of monuments and buildings (scheduling and listing) and for consents relating to scheduled monuments, listed buildings and conservation areas. A right of appeal against certain decisions by Historic Environment Scotland has also been introduced.

The Act amended several acts, including the:

#### [Marine \(Scotland\) Act 2010](#)

This legislation aims to protect and enhance the marine environment.

It introduces:

- a marine planning system
- marine licensing for a wide range of developments and licensable activities in the marine environment

The legislation also makes it possible to create Historic Marine Protected Areas. These can be used to protect marine historic assets of national importance.

#### [Planning \(Listed Buildings and Conservation Areas\) \(Scotland\) Act 1997](#)

This legislation allows HES to:

- list buildings of special architectural or historic interest
- advise on changes affecting listed buildings and conservation areas, e.g. through listed building consent

#### [Ancient Monuments and Archaeological Areas Act 1979](#)

This legislation allows HES to:

- add nationally important monuments to the schedule
- control works affecting scheduled monuments, through processes such as scheduled monument consent

Learn more about scheduling here [Scotland's Scheduled Monuments \(2016\)](#)

## Unauthorized work on a scheduled monument

It is an offence to carry out work, or to allow work to be carried out, on a scheduled monument without consent.

## Scotland (climate change)

The **Climate Change (Scotland) Act 2009** (the Act) places duties on public bodies to contribute to emission reduction targets, deliver programmes for adaptation, to increase resilience, and to act in a sustainable way. HES is identified as a ‘Major Player’ under the Act, due to its size and influence. Guidance on these duties published in 2011 makes it clear that public bodies are expected to assess the impact of climate change on their areas of responsibility and their daily operations, and build resilience.

In May 2014, the Scottish Government published “[Climate Ready Scotland: Scottish Climate Change Adaptation Programme](#)”, which sets out the government’s aims over the next five years to prepare Scotland for climate change. In this, Historic Scotland was mandated to research the impacts of climate change on traditional buildings, disseminate knowledge, skills and tools to manage these, and work to increase the resilience of Scotland’s built heritage and historic environment. These objectives have transferred to HES and will be a focus for us over the coming years, with annual progress being reported here. These obligations reaffirmed our approach to climate change adaptation as set out in our [Climate Change Action Plan 2012-2017](#) – and will be incorporated into our new Action Plan, due to be launched later this year.

In practice, these formal obligations are reflected in the actions set out in our [Corporate Plan](#) (2016) and our [Climate Change Action Plan](#) (2012-2017). The latter contains a list of actions under resilience, in which we commit to developing a methodology for assessing the impact of climate change on heritage assets, and undertaking a climate change risk assessment across the HES estate to evaluate which sites are most at threat. The latter is planned with the explicit intention of informing maintenance and conservation regimes across the estate.

HES reports formally on its climate change adaptation activities through its Sustainability Report, published as an annex to its Annual Report and Accounts, and through the Public Sector Climate Change Duties Reporting portal, under The Climate Change (Duties of Public Bodies: Reporting Requirements) (Scotland) Order 2015.

The impacts of climate change on the historic environment are wide ranging and potentially devastating. However, the climate change agenda is a significant opportunity for the historic environment sector. By recognising its inherent sustainability, its resilience and longevity, and acknowledging the fact that it has always changed over time, the historic environment should be in a positive position to deal with the challenges ahead.



## ***B: Understanding the heritage (carved stones and coastal sites)***

### **Carved stone heritage in Scotland**

A full overview of Scotland's carved stones resource can be found in a Research Framework launched in August 2016. Future Thinking on Carved Stones in Scotland is available online [here](#), and a downloadable illustrated pdf [here](#). Structured around the stages of the heritage cycle, this Framework applies the latest ideas about significance, authenticity and value. The approach is explained in [Section 1.4, here](#). The Framework is accompanied by 41 case studies (these continue to be added, so the website is more up-to-date than the hard copy of the original 39, [here](#)). An accessible booklet, Listen to the Stones, is available [here](#).

Scotland has a National Committee on Carved Stones in Scotland that takes an overview of relevant issues. [Website here](#).

### **Coastal heritage in Scotland**

As an island and seafaring nation, the physical remains of Scotland's social, economic, political and religious heritage can be found everywhere at the coast. Castles, forts, harbours, piers, chapels, burial monuments, fishing stations, coal mines, salt pans and seaside resorts, to name but a few, are all profoundly integral to our very idea of Scotland.

The fertile land and abundant resources of Scotland's coastal areas, in contrast to a mountainous and once forested interior over large parts of the country, focused occupation in the coastal zone from prehistory. As a result of post-glacial isostatic legacy and geographic location in the path of North Atlantic storm tracks, some of this significant coastal archaeological heritage is now located on the shoreline and intertidal zone, exposed to the full force of coastal processes. From 1996, Historic Scotland (predecessor of Historic Environment Scotland) took a strategic lead in assessing the state of the coastal heritage resource and the threat of erosion through the commissioning of Rapid Coastal Zone Assessment Surveys. To date these have been carried out for 35% of Scotland's c. 18,000 km long coastline. The data in the CZAS reports provides the baseline for the range of archaeological remains found at the coast, their condition and the physical environment in which they are located.

The reports are available to download from <http://www.scapetrust.org/html/czas.html>.

The entire CZAS coastal heritage dataset is available on an interactive webmap

<http://scharp.co.uk/sites-at-risk/> and IOS App

<https://itunes.apple.com/gb/app/shoreupdate/id585286792?mt=8>

Since 2010, SCAPE has undertaken two comprehensive reviews of coastal heritage data collected through the CZAS. The first of these by Dawson (2010), *A system for prioritising action at archaeological sites recorded in the Coastal Zone Assessment Surveys*, is available to download from

[http://scharp.co.uk/media/medialibrary/2017/09/CZAS-Prioritisation-Review\\_2010.pdf](http://scharp.co.uk/media/medialibrary/2017/09/CZAS-Prioritisation-Review_2010.pdf).

The second by Hambly (2017) *A Review of Heritage at Risk from Coastal Processes in Scotland* is available to download from

[http://scharp.co.uk/media/medialibrary/2018/02/Review\\_of\\_Coastal\\_Heritage\\_at\\_Risk.pdf](http://scharp.co.uk/media/medialibrary/2018/02/Review_of_Coastal_Heritage_at_Risk.pdf).

As a result of this sustained investment in coastal heritage research, we have a good understanding of the state of the national resource (based upon the 35% of the coastline surveyed). Of the c. 11,000 sites documented in the CZAS around 8% (850) are identified as needing monitoring or mitigation action because they are being impacted by coastal processes. Of these, just over 1% (145 sites) are identified as being at the highest current risk of loss due to coastal processes.

#### What coastlines are most vulnerable?

Sand dune and machair coastlines account for 40% of all highest priority sites. A further 8% are located further inland but still within coastal sand dune and machair environments, and are being impacted by aeolian erosion.

In addition, nearly one quarter of highest priority sites are located on low-lying till over rock platform coast edges.

#### Where is most vulnerable?

Two thirds of the 145 highest priority sites are located in the Northern and Western Isles. This is due to the density of high-value coastal archaeological sites in these regions, the influence of post-glacial isostatic readjustment, the physical nature of the coast edge and exposure to North Atlantic storm tracks.

#### What types of site are most vulnerable?

Within the highest risk category, settlement sites including settlement mounds and specific building types (broch/dun/wheelhouse) make up half of all priority site types. If specific sites which also infer settlement such as structures, fortified sites and middens are included, this rises to three quarters.

### **Florida overview**

An overview of Florida's prehistory and history and a brief timeline of prehistory and history from Florida's Comprehensive **Historic Preservation Plan**:

Overview: <http://info.flheritage.com/comprehensive-plan/chap1.cfm>

Timeline: <http://info.flheritage.com/comprehensive-plan/chap7.cfm>

Florida Archaeology Month posters since 2014 have provided a timeline with brief information about various archaeological periods and on a few type sites from each period. Before 2014 there have been treatment of the historic period (2013) and the Civil War (2012). <http://fpan.us/FAM/timeline.php>

Department of State brief outlines of Florida prehistory and history:

Early Human Inhabitants: <http://dos.myflorida.com/florida-facts/florida-history/a-brief-history/early-human-inhabitants/>

European Exploration and Colonization: <http://dos.myflorida.com/florida-facts/florida-history/a-brief-history/european-exploration-and-colonization/>

Territorial Period: <http://dos.myflorida.com/florida-facts/florida-history/a-brief-history/territorial-period/>

### **Coastal heritage in Florida**

In many respects, all of Florida heritage is coastal heritage. Florida heritage includes archaeological sites the earliest inhabitants of North America dating 10 to 15 thousand years ago (Paleoindian), or longer, through the present. Prior to the end of the Pleistocene, Florida was substantially larger than today, and subsequent sea level rise has submerged substantial river valleys and coastal zones; substantial archaeological remains of settlement from the Paleoindian, Archaic, Woodland, and Mississippian periods are known or expected to be submerged preserved in the offshore and nearshore environments; an Archaic pond cemetery has recently been discovered well preserved offshore on the Gulf Coast, and an intact submerged Paleoindian site with evidence of structures is being investigated in the Aucilla River near the Gulf Coast. Many islands on the Gulf Coast are partially submerged shell middens and mounds from the late prehistoric and early contact periods. Early Colonial period settlement in Florida favoured the coast and although settlement spread to include substantial use of the interior, until the 20<sup>th</sup> century most interior settlement relied on the maritime transportation of goods and people.

### **Carved stone heritage in Florida**

Cemeteries are a vulnerable resource; loss has been modelled on the FPAN Heritage Monitoring Scouts (HMS Florida) project page:

<http://www.arcgis.com/apps/View/index.html?appid=b5502a70d9fe4b91b44dc6f620cf17e6&extent=-81.4375,29.7630,-81.1800,30.1479>

FPAN's Cemetery Resource Protection Training program (<https://fpan.us/workshops/CRPT.php>) and **Submerged Sites Education and Archaeological Stewardship** (SSEAS) program (<https://fpan.us/workshops/SSEAS.php>) are increasingly working in tandem with HMS to record and plan for the future of those cemeteries most at risk from climate change.

## C. *Significance and value*

How is significance and value currently applied to heritage in your country/area of practice?

### USA

Significance of heritage in the U.S. at least in a regulatory environment is generally associated with the **National Register of Historic Places** criteria established by the **National Historic Preservation Act of 1966**. However, this only pertains to Federal Property or on undertakings of the Federal Government (<https://www.nps.gov/nr/>).

The National Register of Historic Places is the primary reference for determining significance of historic/cultural properties. Criteria for eligibility are here:

[https://www.nps.gov/nr/publications/bulletins/nrb15/nrb15\\_2.htm](https://www.nps.gov/nr/publications/bulletins/nrb15/nrb15_2.htm)

### Criteria for Evaluation

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. That are associated with the lives of significant persons in our past; or
- C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. That have yielded or may be likely to yield, information important in history or prehistory.

### Criteria Considerations

Ordinarily cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

- a. A religious property deriving primary significance from architectural or artistic distinction or historical importance; or
- b. A building or structure removed from its original location but which is primarily significant for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
- c. A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building associated with his or her productive life; or

- d. A cemetery that derives its primary importance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
- e. A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or
- f. A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or
- g. A property achieving significance within the past 50 years if it is of exceptional importance.

### Florida

For State lands, statute or policy generally follow National Register criteria or provide for similar but sometimes less rigorous (more easily inclusive). State historic preservation agencies—in Florida the Department of State Division of Historical Resources (<http://dos.myflorida.com/historical/>)—help to implement the National Register program at the local level.

### Scotland

Scotland's Historic Environment Strategy, [Our Place in Time](#), sets out a vision, which emphasizes the values and benefits of heritage, in particular its role in connecting people and places. In terms of designation practices, the application of values is summarised in the appendices of [Historic Environment Scotland Policy Statement](#) (see below for criteria for scheduled monuments). This is currently under review, with the ambition, among other things, of trying to address social values. A part of the background to this is a recent Historic Environment Scotland initiative called *What's Your Heritage*, and the findings of its [report](#).

The wider context is a recognition that the values being applied for designation purposes are traditional, reflecting an 'authorised heritage discourse' that is Euro-centric and does not embrace intangible values and associated ideas about the nature of authenticity. A full discussion of this context in respect to social value can be found in Jones, S and Leech S 2015, [Valuing the Historic Environment: a critical review of existing approaches to social value](#) (in particular, Chapter 2 provides a discussion of the national and international contexts; bibliography useful for wider reading). This article provides a summary of the report's main arguments, Jones, S. 2016. Wrestling with the social value of heritage: problems, dilemmas and opportunities. *Journal of Community Archaeology and Heritage*, 4(1): 21-37

Beyond the sphere of designation, particularly in the development of Statements of Cultural Significance, commonly employed in the context of management, conservation and interpretation planning, there is a broader acceptance and application of the ideas about values promoted by the 2013 [Burra Charter](#). The European Landscape Convention and the Faro Convention are also important in terms of wider international frameworks stressing more 'bottom-up', participatory approaches focusing on values.

For a discussion of the application of current ideas about significance and value in the context of carved stones see [Section 4](#) of [Future Thinking on Carved Stones in Scotland](#), which has a useful bibliography.

## Assessing monuments for scheduling

For a monument to be considered of national importance it must have a particular cultural significance which relates to its artistic, archaeological, architectural, historic, traditional, aesthetic, scientific or social merits. This significance may be present in its form, fabric and setting. We will also take into account evidence of the monument's use, and any associations, records or objects which relate to the monument. Our understanding of cultural significance can change over time, especially if there is new information, or there are changing ideas and values about our heritage.

The Historic Environment Scotland policy statement <https://www.historicenvironment.scot/advice-and-support/planning-and-guidance/legislation-and-guidance/historic-environment-scotland-policy-statement/> explains what the term 'cultural significance' means.

It notes that the concept of '*cultural significance*' will apply widely and to different degrees to all of Scotland's historic environment, and should not be confused with the establishment of '*national importance*', which is a separate process. For a monument or a class of monuments to be considered as being of national importance it must, first, have a particular cultural significance – *artistic; archaeological; architectural; historic; traditional* (factors listed in the 1979 Act); *aesthetic; scientific; social* – for past, present or future generations. Such significance is inherent in the monument itself, its fabric, setting, use, associations, meanings, records, related monuments and related objects.

In summary, the main considerations are as follows.

### ***Intrinsic characteristics***

Intrinsic characteristics are those which are inherent to the monument. This can include the condition in which the monument has survived, including possible archaeological evidence above and below ground, and goes beyond the survival of visible remains. Other examples of intrinsic characteristics are the archaeological, scientific, technological or other interest or research potential of the monument. This will also include how the monument developed over time (whether it represents a single or multiple phases of occupation). We also consider the original or subsequent functions of a monument.

### ***Contextual characteristics***

Contextual characteristics relate to the monument's place in the landscape, how it relates to other monuments and its role in past society. This can include how rare the monument is or what it represents, assessed against our knowledge of the archaeology of Scotland and the region where the monument is located. Another key factor is the relationship of the monument to other local monuments of the same type (or related types) or from the same period.

### ***Associative characteristics***

Associative characteristics are more subjective assessments of the monument, and include historical, cultural and social influences that have affected its form and fabric. This can also include its aesthetic qualities or its significance as a monument of national identity or to people who use or have used the monument, or descendants of these people, as well as the links the monument has with historical, traditional or artistic characters or events.

Scheduling may not always be appropriate even if sites otherwise meet the criteria. For example, if a coastal site is being eroded by the sea and is likely to be lost in the near future, scheduling may not be appropriate.

## D. *Climate Change*

- i. Summarise current understanding of the impacts of climate change projections most relevant for carved stone heritage and coastal heritage for your geographic area?

### USA / NPS

NPS geographic area is the whole of the United States. Key summaries of current understanding include:

#### ***NPS Climate Impacts on Cultural Resources:***

See Goal 2 (*Understand the Scope: Coordinate science, management, and communication to identify and improve understanding of the effects of climate change on cultural resources*) in

<https://www.nps.gov/subjects/climatechange/culturalresourcesstrategy.htm>

#### ***NPS Coastal Adaptation Strategies Handbook:***

<https://www.nps.gov/subjects/climatechange/coastalhandbook.htm>

#### ***NPS Coastal Adaptation Case Studies:***

<https://www.nps.gov/subjects/climatechange/coastaladaptationstrategies.htm>.

None of these case studies directly address coastal carved stone. Problems with precipitation and especially freeze-thaw stress on carved stone have been identified at Saint-Gaudens National Historic Site in northern New Hampshire. However, this situation is not coastal and is currently recognized as a problem, no solutions are currently in preparation.

#### ***NPS Preservation Briefs:***

As shown by the list of published Preservation Briefs, carved stone heritage is not yet a major preservation concern: <https://www.nps.gov/tps/how-to-preserve/briefs.htm>.

*PB 1 Cleaning and Water-Repellent Treatments for Historic Masonry Buildings,*

<https://www.nps.gov/tps/how-to-preserve/briefs/1-cleaning-water-repellent.htm>, is likely the most relevant.

Briefs directly relevant for coastal climate change include:

*PB 39 Holding the Line: Controlling Unwanted Moisture in Historic Buildings*

<https://www.nps.gov/tps/how-to-preserve/briefs/39-control-unwanted-moisture.htm>

A new PB is in preparation that will address flooding and historic buildings.

### Florida

Current climate change projections impacting coastal heritage for Florida are sparse. Florida's previous administration under Governor Charlie Crist allowed conversations about climate change at the state level during the time that a climate change action plan, best practices, and stabilizations guides were created by the state (included in folder). In 2012 Governor Rick Scott was elected and conversations related to climate change at the state level ceased. Environmental non-profits and local governments are producing the bulk of information on this topic, although some planning for sea level rise and storm surge documents are on the rise as a workaround given increasing public demand in light of intensifying hurricanes.

Our only guiding document on projections from the state on impacts to cultural resources by sea level rise come from a quickly put together graphic by the Florida Master Site File for a meeting in 2012. The official attribution of the image has shifted over time but FPAN maintains permission to use the image (Vincent Birdsong, 2012). Though it is a crude projection based solely on elevations, it still stands as the only document we have in Florida for baseline data across the state. Image in file.

As mentioned in the carved stone section above, a tool developed by FPAN for the Heritage Monitoring Scout program is a Historic Cemeteries and Sea Level Rise in Florida viewer that includes NOAA sea level rise predictions and storm surge zones.

<http://www.arcgis.com/apps/View/index.html?appid=b5502a70d9fe4b91b44dc6f620cf17e6&extent=-81.4375,29.7630,-81.1800,30.1479>

Less relevant but included as resources for managing coastal areas:

**Florida Oceans and Coastal Council Report (2010):** Copies provided in folder.

[https://floridadep.gov/sites/default/files/Climate%20Change%20and%20Sea-Level%20Rise%20in%20Florida\\_1.pdf](https://floridadep.gov/sites/default/files/Climate%20Change%20and%20Sea-Level%20Rise%20in%20Florida_1.pdf)

**What Climate Change Means for Florida (EPA 2016)** <https://www.epa.gov/sites/production/files/2016-08/documents/climate-change-fl.pdf> and PDF copy provided in folder.

Book: Sea Level Rise in Florida – can bring a copy or send scan of forward. Geology based but some references to heritage sites. <https://www.amazon.com/Sea-Level-Rise-Florida-Science/dp/0813062896>

Review from Sea Grant page: Sea-Level Rise in Florida: Science, Impacts and Options by Albert C. Hine, Don P. Chambers, Tonya D. Clayton, Mark R. Hafen, and Gary T. Mitchum

“This book offers an in-depth examination of the cycle of sea levels in the past and the science behind the current measurements and the future projections. The authors assess the most likely range of sea level rise in Florida based on a synthesis of projections for the next hundred years. They also discuss ongoing and potential consequences for natural marine and coastal systems and how we can begin to plan strategically for the inevitable changes.”

Florida Sea Grant: <https://www.flseagrant.org/climatechange/sea-level-rise/>

Florida Sea Grant programs help coastal communities prepare for impacts from sea level rise. The website includes planning and policy tools, and information on grants for community projects.

FL Department of Economic Opportunity: <http://www.floridajobs.org/community-planning-and-development/programs/community-planning-table-of-contents/adaptation-planning>

Florida + Climate Change - The Cost of Inaction: [http://sei-us.org/Publications\\_PDF/SEI-FloridaClimateChangeInaction-07.pdf](http://sei-us.org/Publications_PDF/SEI-FloridaClimateChangeInaction-07.pdf)

1000 Friends of Florida Disaster Planning Resources: <http://www.1000friendsofflorida.org/building-better-communities/historic-preservation/>

Northeast Florida Regional Council Report: <http://www.nefrc.org/pdfs/Regional%20Action%20Plan.pdf>



City of Satellite Beach Municipal Response to Sea Level Rise:

<http://www.satellitebeachfl.org/Documents/Sea%20Level%20Rise%20-%20CRE%20Report%2007-18-10.pdf>

Miami-Dade Sea Level Rise Task Force: <http://www.miamidade.gov/planning/boards-sea-level-rise.asp>

Southeast Florida Regional Compact: <http://www.southeastfloridaclimatecompact.org/>

Adaptive Tampa: <https://tampaslr.wordpress.com/>

## Historic Environment Scotland

Historic Environment Scotland cares for 336 properties of national or international importance. Of our 336 Properties in Care, 8% are within 10 metres of the coastline, and 14% within 50 metres. Although a relatively small proportion of our overall Estate, this still represents a number of significant sites that may be at risk of coastal flooding and/or erosion. We incorporated datasets pertaining to coastal erosion and flooding in our recently published [Climate Change Risk Assessment](#), to attempt to capture which of these coastal sites are at risk from these natural hazards.

Our place on the Steering Committee for the Scottish Government's [Dynamic Coast: National Coastal Change Assessment](#) (NCCA) project will allow us to further enhance our understanding of the risk posed to our coastal Properties in Care. NCCA is a major Scottish Government research project collating information on coastal change, resilience and susceptibility to future coastal erosion. The NCCA aims to inform existing strategic planning (Shoreline Management Plans, Flood Risk Management Planning, Strategic and Local Plans, National and Regional Marine Planning etc.) and to also identify those areas which may remain susceptible in the coming decades and require supplementary support. The identification of susceptible assets will enable the development of future management policies and adaptation plans robustly based on a strategic and objective evidence base. The results of this project were launched in August 2017. Webmaps and reports can be viewed at <http://www.dynamiccoast.com>.

## Coastal heritage in Scotland

For an overview of the Scotland-specific evidence included in the UK Climate Change Risk Assessment Evidence Report see <https://www.theccc.org.uk/wp-content/uploads/2016/07/UK-CCRA-2017-Scotland-National-Summary.pdf>. In summary, under a medium emission scenario, climate change projections for Scotland based upon UKCP09 are for up to 4.5°C rise in summer mean temperature by 2050 compared to a 1961-1990 baseline. Up to 31% rise in winter precipitation for the same scenario. Relative sea-level for the Edinburgh region is expected to rise by up to 40cm by 2090 compared to a 1990 baseline.

In our region, meteorological trends are a significant factor in determining coastal erosion, and so the physical susceptibility of the coastline is a reliable predictor of where heritage is more likely to be impacted by coastal processes. We now have two cycles of site inspection-based data about Scotland's coastal heritage resource (originally collected through CZAS and subsequently reviewed through

SCHARP). This has allowed us to identify which types of coastlines and geographic areas are most susceptible to past and present coastal change.

Given the amplification of the effects of coastal processes and meteorological events likely to occur as a result of climate change projections, this empirical evidence base can be used as a predictor of where will be most affected in the future. Archaeological sites located within soft sediment low-lying coastlines in the Northern and Western Isles are likely to be most at risk from the impacts of climate change.

## **E. Risk assessments, adaptation plans and prioritisation projects**

### **USA / NPS**

Pilot prioritization project developed for NPS Cape Lookout National Seashore:

<https://content.ces.ncsu.edu/assessing-historical-significance-and-use-potential-of-buildings#>

Note: this approach is not official NPS policy or practice. It is a pilot method. A second pilot is currently being developed for historic structures in another coastal park. An additional project is also in development to translate this prioritization framework for archaeology.

NPS is currently in the process of doing an assessment of vulnerability assessments (AVA) for cultural heritage, natural resources, and facilities. A preliminary report on the cultural heritage AVA was presented by Marcy Rockman and Pei-Lin Yu at the 2018 Society for American Archaeology meetings in Washington, DC. A PDF of the paper notes and slides are attached.

The most complete NPS adaptation report so far is:

Beavers RL and Others. 2014. *Shoreline erosion and adaptation strategies for Peale Island Cabin, Yellowstone National Park. Natural Resource Report*. NPS/NRSS/GRD/NRR—2014/858. National Park Service. Fort Collins, Colorado. <https://irma.nps.gov/DataStore/Reference/Profile/2216472>

### **Florida**

“*Maritime Archaeology and Climate Change: An Invitation*” by Jeneva Wright (2016). Article on assessment of submerged resources. In folder.

“*Application of Photogrammetry for Assessment and Monitoring of the 1733 San Pedro Underwater Archaeological Preserve*” Maus et al (2015). In folder.

*Archaeological Stabilization Guide: Case Studies in Protecting Archaeological Sites* (2004). Link to pdf and copy provided in folder: [http://dos.myflorida.com/media/30913/stab\\_guide.pdf](http://dos.myflorida.com/media/30913/stab_guide.pdf).

There is an emphasis in Florida on collections. In the folder is a flier on the *Connecting to Collections* program from Florida Association of Museums. <http://flamuseums.org/professional-development/florida-connecting-to-collections-program/>

*Canaveral 3D scanning project* <https://www.lib.usf.edu/dhhc/cape-canaveral-3d/> Climate change is not explicitly stated in documents related to the 3D scanning of cultural resources at the Cape Canaveral Air Station, however the scans are part of the mitigation strategy of these National Register listed properties where stabilization efforts are failing or no longer practical due to their coastal location.

Not directly related to archaeology but included for coastal communities:

*Planning for Matanzas* <https://planningmatanzas.org/> - Best model in northeast Florida for planning for sea level rise- collaborative project. Fort Matanzas and other cultural resources are in the project area. Also provided a model for community engagement.

*Disaster Planning for Florida’s Historic Resources* (2006). 1000 friends of Florida website: <http://www.1000friendsofflorida.org/building-better-communities/disaster-planning/> and pdf of publication in folder.

*Protecting Florida's History from Hazards: A Guide to Integrating Cultural Resources into Disaster Planning* (2017). Archaeology appears 5 times in the document, as part of FPAN's organizational name ☺  
So maybe not helpful, more for structures for planners. Link to pdf and copy in the folder:

[https://www.law.ufl.edu/law/wp-content/uploads/2017/07/Protecting\\_Floridas\\_History\\_20July2017\\_1Sided.pdf](https://www.law.ufl.edu/law/wp-content/uploads/2017/07/Protecting_Floridas_History_20July2017_1Sided.pdf).

*Punta Gorda Adaptation Plan* (2009) historic structures mentioned as part of plan, but no archaeology included in the report.

### Scotland (Climate Change)

In partnership with the **Scottish Environment Protection Agency** (SEPA) and the **British Geological Survey** (BGS), we have undertaken a comprehensive analysis of natural hazard risk, to our Properties in Care. This has resulted in the development of:

- i) a current climate risk register for the HES estate, and
- (ii) a methodology for assessing the impacts of climate change on heritage assets in the wider historic environment.

The Historic Environment Scotland [Climate Change Risk Assessment \(CCRA\)](#) was a desk based, Geographic Information Systems (GIS) analysis of natural hazard risk to our 336 PICs that involved overlaying spatial boundary data for our PICs with natural hazard datasets supplied by the BGS and SEPA. We then used the vulnerability to natural hazards, such as flooding and coastal erosion, as indicators of susceptibility to the changing climate, allowing us to identify what sites we believe to be most at risk from climate change. This was a baseline exercise with future phases of risk assessment work looking to improve and refine these results.

Initial analysis of the results, published in our Annual Conservation Report in January 2017, indicated that out of the 352 sites investigated, 89% are exposed to high, or very high levels of risk (some of our 336 PICs have more than one area of 'guardianship' or 'ownership', meaning we ran the assessment for 352 'sites'). When we then consider the mitigating factors and controls already in place, such as routine maintenance and ongoing conservation work, the number of sites classified as 'at risk' is reduced to 53%. With this new information, we can now conduct a more in-depth analysis of climate change risk at the high-risk sites identified in the baseline study. This evaluation of climate change risk will provide improved evidence-based decision-making in order to prioritise on-going investment through our conservation and maintenance programmes, thus ensuring the long-term survival of the properties in our care.

This study represents the first step in a comprehensive and ongoing exercise to understand, monitor and manage environmental risk to our Estate. This study is part of ongoing work to develop best practice and integrate climate change actions into our operations, in line with the Public Bodies Duties under the Climate Change (Scotland) Act 2009 and Climate Ready Scotland: Scottish Climate Change Adaptation Programme. [Report download link](#).

**Coastal heritage in Scotland – risk assessment and prioritisation methodology** *(summary of results given in section B Understanding the heritage)*

In 2010, Tom Dawson carried out initial research to prioritise action at coastal heritage sites identified as at-risk in the Coastal Zone Assessment Survey reports. The aim of the analysis was to establish a systematic methodology for prioritising action at sites being affected by coastal processes. The full report of the prioritisation methodology, analysis and results are available to download from [http://scharp.co.uk/media/medialibrary/2017/09/CZAS-Prioritisation-Review\\_2010.pdf](http://scharp.co.uk/media/medialibrary/2017/09/CZAS-Prioritisation-Review_2010.pdf), but in summary, the work flow was:

1. Digitise all CZAS heritage and coastal erosion data (CZA surveys started in 1996)
2. Standardise records (to allow classification of monument types)
3. Assign each heritage asset type to an ‘asset class’
4. Determine erosion class for each heritage asset (using site description and GIS analysis)
5. Stakeholder review (verifying value of heritage classes and local erosion threats)
6. Extract and rank sites-at-risk based on the following formula:

<p><b>Archaeological significance</b></p> <p>Value assigned to asset class, based on factors including national designation criteria</p>	x	<p><b>Vulnerability</b></p> <p>Site condition GIS determination of: Proximity to dynamic coast; Geomorphology; Altitude.</p>	=	<p><b>Priority</b></p> <p>Ranked 1-5 or none</p>
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By adopting an agreed methodology for standardising the records and assigning asset class value to sites, and by focusing on the specific threat of erosion, the number of sites at risk requiring some sort of action was reduced from 3,768 (recommended by the original surveyors) to 1,115. Of these, 322 were given priority 1 or 2 scores, the highest priorities for further action. These represented the most archaeologically significant sites which were currently being either impacted by, or at real risk of being impacted by, coastal processes.

The outcomes of the desk-based analysis provided the basis for a national review of priority coastal sites based upon field inspection data provided by trained volunteers in the Scotland’s Coastal Heritage at Risk Project (SCHARP) carried out between 2012 and 2016.

Following moderation of submitted records(to maintain consistency), SCAPE officers analysed the full range of observational data submitted for each site in relation to the original CZAS record to make an expert judgement of the scale and immediacy of threat from erosion and urgency and nature of action required.

The new priorities were then discussed with Local Authority Archaeologists and other stakeholders to ensure that the revised SCHARP priority sites reflected the local understanding of heritage managers.



The criteria used in SCHARP when reviewing priority scores and recommended action is summarised in the table below:

Score	SCHARP Priority and Recommendation
1*	<p>Site has deteriorated since original CZAS.</p> <p>Differentiated from Priority 1 sites on basis of heightened vulnerability; most sites in this category are in soft, sandy coastal areas that show no evidence of stabilising.</p> <p><u>Recommendation:</u></p> <p>Urgent action to mitigate loss of information required.</p>
1	<p>Site remains unstable or has deteriorated since original CZAS. Vulnerable to coastal processes under normal weather conditions. The integrity of the whole site is threatened.</p> <p><u>Recommendation:</u></p> <p>Action required to rescue or protect information within management/research framework.</p>
2	<p>Site is unchanged or has stabilised somewhat since the original CZAS, but remains vulnerable to coastal processes, even under normal weather conditions. The integrity of the whole site is potentially threatened. A change in condition and status to Priority 1 could happen rapidly.</p> <p><u>Recommendation:</u></p> <p>Further characterisation in some cases required.</p> <p>Monitor at least annually and following extreme weather events.</p>
3	<p>Site is relatively stable / has stabilised since the original CZAS – but is vulnerable to extreme weather events. Under normal conditions, parts of the site may be threatened, not the whole site. Condition could change rapidly so retain ability to respond.</p> <p><u>Recommendation:</u></p> <p>Monitor after extreme weather events and every 3- 5years.</p>

SCAPE has not explicitly considered climate change in our prioritisation research. However, susceptibility to climate change effects may be inferred from vulnerability to past and current coastal change, and it would be a small step to consider the specific threat of projected climate change impacts. For an example of a specific climate-change risk assessment which is similar in approach to SCAPE's coastal heritage prioritisation in 2010, see Scottish Natural Heritage's recent Research Report 1014 - A climate change risk-based assessment for nationally and internationally important geoheritage sites in Scotland including all Earth science features in Sites of Special Scientific Interest (SSSI) available to download from <https://www.nature.scot/snh-research-report-1014-climate-change-risk-based-assessment-nationally-and-internationally>.

The SNH approach uses site categories and expert judgement to assess how groups of sites are likely to respond to various aspects of climate change, similar to Dawson's site value class and erosion class method to extract priority status.

### **Examples of action plans or adaptation management plans for priority sites at risk**

In both the 2010 CZAS prioritisation and SCHARP review, recommendations for action were part of the review process. In Dawson's desk-based analysis, he recommended a staged approach consisting of up to 3 actions for priority sites; typically a site visit to verify current condition, followed by evaluation and finally some form of mitigation.

In SCHARP, the second and third actions were more bespoke because they were based upon the site visits and recommendations from local volunteers with input from SCAPE Officers. Review recommendations for all sites visited in SCHARP are available here [http://scharp.co.uk/media/medialibrary/2017/09/Part2\\_ShoreUPDATEPriorityReviewRecommendations.pdf](http://scharp.co.uk/media/medialibrary/2017/09/Part2_ShoreUPDATEPriorityReviewRecommendations.pdf)

These informal recommendations for actions are aimed at assisting managers, communities and researchers in developing options for further work.

Because SCAPE mostly works with archaeological sites at risk of destruction or already suffering significant damage as a result of coastal processes, our adaptation strategy usually errs towards investigation and 'letting go'. This is due to pragmatic reasons - it is rarely possible to protect sites sustainably; but also our philosophy of at-risk coastal heritage being a resource for learning and enjoyment through the process of involving people in its investigation and research. The ShoreDIG element of SCHARP consisted of undertaking a range of community projects at 14 locally-valued sites, partly to explore practical options for at-risk heritage. Any of these ShoreDIG projects provide examples of good practice in involving community volunteers in the investigation of critically endangered sites <http://scharp.co.uk/shoredig-projects>. Projects including digital recording, excavation, oral history recording, video making; and in two examples, Meur in Orkney (<http://scharp.co.uk/shoredig-projects/meur-burnt-mound/>) and Cruester in Shetland (<http://www.shorewatch.co.uk/cruester/>), sites were excavated and then relocated from an intertidal location to a local heritage centre at the request of the local community.

## F Participation

- i. What role do local communities and non-specialists currently have in the management and research of / making decisions affecting heritage at risk?

### USA/NPS

Non-specialists and local communities can nominate problems for both local lists of historical resources and the National Register of Historic Places. Guidance on how to do such nomination is here:

Nominating properties to the National Register of Historic Places:

[https://www.nps.gov/nr/national\\_register\\_fundamentals.htm](https://www.nps.gov/nr/national_register_fundamentals.htm)

Local communities and non-specialists have key roles to play in participating in consultations about impacts to heritage resources and providing comments during public comment periods of environmental reviews. Guidance on being part of NHPA Section 106 consultations can be found here:

<http://www.achp.gov/docs/CitizenGuide.pdf>

In Florida the most direct role available to non-specialists is through FPAN's **Heritage Monitoring Scouts** program (**HMS Florida**): <http://fpan.us/projects/HMSflorida.php>. Participants in this program actively monitor assigned sites and can record other sites discovered in the process. The new HMS Florida database now includes a portal for state land managers in addition to the heritage scout volunteers (<https://hms.fpan.us/>). We are rolling out a timber-tagging project that will allow monitoring movement and condition of ship and other timbers exposed through coastal erosion and is focused on citizen scientist participation.

Communities can step up to include heritage at risk in their local planning. Many communities are addressing risk due to climate change, and we are encouraging those communities to include a heritage component in their plans.

Two publications for non-professionals by the state are **Best Management Practices** (2005) and the **Archaeology Site Stabilization** guide (2004). Both documents were created to assist private property owners and land managers in site stewardship efforts. They were once distributed by Florida Department of State and both still stand as their most recent publication on site stabilization for non-professionals. PDFs of both available in the folder.

Best Management Practices <http://dos.myflorida.com/media/30904/handbook.pdf>

Archaeological Stabilization Guide: Case Studies in Protecting Archaeological Sites (2004)

[http://dos.myflorida.com/media/30913/stab\\_guide.pdf](http://dos.myflorida.com/media/30913/stab_guide.pdf).

Related to participation of non-professionals are **site stewardship programs**. These programs are generally initiated and supported by a state or federal agency who enlist volunteers to help monitor archaeological sites. Many of these programs could easily add a component to their existing program that asks volunteers to assess threat levels related to climate change or collect data over time.

- Kelly, S., 2007, 'Developing and implementing archaeological site stewardship programs; National Park Service curriculum', Dept. of the Interior, Technical Brief 22, National Park Service, Washington, D.C. <https://www.nps.gov/archeology/pubs/techbr/tchBrf22.pdf>
- California Archaeological Site Stewardship Program <http://www.cassp.org/>



- Colorado Program for Avocational Archaeological Certifications Program: <http://www.historycolorado.org/archaeologists/program-avocational-archaeological-certification-paac>
- Montana site stewardship program <https://projectarchaeology.org/montana-site-stewardship-program>
- Nevada Site Stewardship Program: <http://shpo.nv.gov/get-involved/the-nevada-site-stewardship-program>
- Wyoming Site Stewardship Program: <http://wyoshpo.state.wy.us/Steward/>
- Thousand Eyes (TVA) <https://tennesseearchaeologycouncil.wordpress.com/2015/09/20/30-days-of-tennessee-archaeology-2015-day-20/>

## Scotland

### Carved stones

The [case studies](#) associated with Future Thinking on Carved Stones in Scotland (see above) offer examples of this, particularly 1, 12, 23, 29, 40 and 41.

[Scotland's Rock Art Project](#) was initiated in 2017. It is a five-year project to record and research prehistoric rock art across the country working in collaboration with communities and individuals across Scotland. It is an example of a top-down approach.

For a more bottoms-up approach to working with communities involving co-production of research, see Jones, S., Jeffrey, S., Maxwell, M., Hale, A. and Jones, C., 2018. *3D heritage visualisation and the negotiation of authenticity: the ACCORD project*. *International Journal of Heritage Studies*, 24(4), pp. 333-353.

### Archaeological heritage

SCHARP (<http://www.ssharp.co.uk/>) and its predecessor Shorewatch (<http://www.shorewatch.co.uk/>) are examples of a national coordinated response involving communities in the research and local management of coastal heritage at risk. Every individual ShoreDIG and Shorewatch project addressed a site at risk nominated by a local community. Although not specific to heritage at risk, Archaeology Scotland's Adopt-a Monument programme (<https://archaeologyscotland.org.uk/adopt-a-monument>) also provides an example of a national scheme where communities play a leading role in nominating and conserving a locally valued historic monuments.