

Report of the Task Force for Considering an AAS-sponsored
Historical Site Designation Program

January 2023

Thomas Hockey, Chair
hockey@uni.edu
University of Northern Iowa & WGAH (History of Astronomy)

Stephen McCluskey
Stephen.McCluskey@mail.wvu.edu
University of West Virginia & WGAH (Archaeoastronomy)

Amy Oliver
aoliver@nrao.edu
National Radio Astronomical Observatory & HAD

Sarah J. Reynolds
reynoldssj@uindy.edu
University of Indianapolis

Kenneth Rumstay
krumstay@valdosta.edu
Valdosta State University & HAD

Sara Schechner
schechn@fas.harvard.edu
Harvard University & WGAH (Historic Instruments)

Patrick Seitzer
pseitzer@umich.edu
University of Michigan

Jennifer Bartlett, Working Group Liaison
Jennifer@bartlettastro.com
United States Naval Observatory & WGAH (Chair)

Introduction

In 2021, the American Astronomical Society (AAS) approved the request of the Working Group on the Preservation of Astronomical Heritage (WGAH) and the Historical Astronomy Division (HAD) to form a task force that would assess the feasibility of an AAS Historic Site Designation Program, along the lines of programs maintained by other professional societies. Virginia

Trimble (University of California/Irvine & WGRAH [Archives]) had raised the possibility of the AAS sponsoring such a program, patterned after that of the American Physical Society, at the 2021 Annual Meeting of the WGRAH.¹ Following that meeting, The WGRAH and HAD Executive Committee discussed and voted to approve further study of this possibility through the formation of a task force. After approval by the AAS, the Historical Site Designation Program Task Force was constituted with the volunteer AAS members listed under the authorship of this report. Its liaison is Jennifer Bartlett, Chair of the WGRAH. This report was delayed due to events associated with the SARS-CoV-2 spread pandemic.

The purpose of the Task Force is to outline a potential program for the AAS, estimate its initial and continuing costs, and evaluate its benefits to the Society and profession. The coverage of this report addresses these purposes in the following order:

1. Assessment of the benefits and risks of a designation program for selected sites, including the value of promoting astronomical heritage in this manner for our Society and the profession.
2. Outline of a potential program based upon review of other historic-site designation programs, including what kinds of sites might be considered for designation, the nomination and selection process, and the benefits of recognition.
3. Analysis of the costs, both initial and continuing, of such a program.

At the end, a recommendation is made to the parent bodies of the Task Force.

Value, Benefits, and Risks of an AAS Historic Site Designation Program

A program to recognize locations of astronomical importance provides opportunities to identify and promote astronomy's impact throughout history and also highlights connections to the history of a unique place. Ideally, the recognition involved in an AAS Historic Site Designation Program can be connected to other initiatives of the AAS and its divisions, providing an opportunity for related publicity, outreach, and education, and preservation and awareness of astronomical heritage.

Custodians of a site may use an AAS designation of historical significance as a vehicle for documentation, as illumination of the diversity within astronomical practices, as a form of desirable publicity, as an indicator of educational significance, for political empowerment, for insurance valuation, for raising funds or support (e.g., an application for some form of formal preservation), or for directing future development.

¹ <https://www.aps.org/programs/outreach/history/historicsites/> The APS program is modeled after the National Historic Chemical Landmark program established by the American Chemical Society in 1992.

Designation of sites should be done with prior consultation with the appropriate stakeholders. Knowledge of a site might be culturally sensitive. Greater awareness of a site might increase the threat of human impact, theft, or vandalism. Consequently, working with site custodians and/or local communities in proposing, nominating, and recognizing sites is essential.

While some historic-site programs have a regulatory role that establishes requirements for site preservation, this is not typical of scientific-site recognition program and would not be the appropriate role for the AAS. An AAS program, along the lines of programs of the American Chemical Society (ACS) and American Physical Society (APS), would offer recognition that could be referenced by site custodians or community partners, in support of preservation efforts, but without establishing particular restrictions or requirements that may prove costly, burdensome, and limiting for a site's custodians.

Recognition of a historic site can contribute to the preservation of astronomical heritage and history beyond the physical site itself by providing a venue for the collection and dissemination of information related to a site's history. Such materials may be assembled in the nomination process, which provides an opportunity for evaluation of a site's history. Furthermore, the recognition process itself contributes to the history of a site by articulating its historical value and significance to us today.

Some sites of astronomical significance already are recognized through other historic site designation programs. Most state history divisions (all with different names) have a monuments-and-markers database as a component of their statutory responsibilities. Some states create a non-profit entity, under state auspices, for this purpose. Beyond the state level, there exists a National Register of Historic Places. The National Park Service designates National Historic Sites and National Historic Landmarks. Globally, there are UNESCO World Heritage Sites.

Among programs specifically related to astronomy or related sciences, the International Astronomical Union (IAU) has designated Outstanding Astronomical Heritage sites, and several sites of astronomical significance are recognized in the ACS and APS programs, reflecting astronomical contributions to the fields of chemistry and physics. However, this redundancy seems non-problematic, since one program or society's recognition of a landmark or historical site does not prevent others from doing so, reflective of the differing interests and purposes of each group. The selection criteria and recognition offered by an AAS program would reflect the specific interests of the American Astronomical Society and its members.

Design of an AAS Historic Site Designation Program

In considering the potential design of an AAS Historic Site Designation Program, the Task Force reviewed the criteria and procedures of programs run by other scientific societies, including the ACS, APS, and IAU. It also solicited feedback from AAS members both in-person and virtually at the 240th AAS Meeting in summer 2022.

Nomination and Selection

The Task Force suggests that an AAS Historic Site Designation Program recognize sites within North America that are associated with significant historical developments in astronomy,

including observational, theoretical, and technological advances that contributed to human knowledge of astronomy. Sites should be nominated by an AAS member (or division) with the support of a partnering host for site recognition. Some historical developments may be connected with multiple places or with places that are ill-located for recognition (owing to access restrictions, environmental sensitivity, other cultural significance, *etc.*), in which case the nomination may be connected with a site that is established to be appropriately representative of the development rather than the location of the development itself.

Sites worthy of potential designation may include:

- Observatories and instruments
- Properties in which the design and/or landscape setting has significance in relation to celestial objects or events (*e.g.*, an astronomically aligned archaeological edifices)
- Representations of the sky and/or astronomical objects or events (*e.g.*, a planetarium)
- No-longer active field sites (*e.g.*, those established for observing transits of Venus to determine the length of the Astronomical Unit), even though they usually are physically separate from the sponsoring institution or researchers
- Landmarks such as observational indicators (*e.g.*, horizon calendars) or visual hierophanies (*e.g.*, the sunrise light-and-shadow interaction at Hovenweep National Monument)

Sites do not need to be preserved in their original state for recognition.

Nominations will be reviewed by a committee comprised of members of the AAS, including at least one representative from HAD and one representative from WGAH.

This committee will aim to select 2-3 sites for recognition every year from among those nominated, recommending those sites to the WGAH/HAD/AAS for approval. Nominations not selected for recognition in a given year may be recommended for reconsideration the following year. Nominations that are not selected for recognition or automatic reconsideration will be returned to the nominating member/division with feedback to allow for potential revision and resubmission.

Recognition and Costs

In preparing this section, the Task Force examined the practices of professional societies that already designate historical sites. These include the APS, ACS, American Society of Civil Engineers, American Society of Mechanical Engineers, and IAU.

I. Ongoing program costs:

The AAS would need to maintain a special-purpose website (with—preferably—URLs including images, or links to images) for each dedicated site. It would present an account of the historic site designation program, list the sites recognized by the program, include resources on the recognized sites and associated historical developments, and provide instruction for nominating a site.

A committee, presumably of AAS member volunteers, would gather, vet, and select site-award nominations. However, the website and the organization of recognition once a site is selected would require a certain level of staff support on the part of the AAS. The required work might be performed by a person or persons with other staff responsibilities. Certain aspects of the recognition, such as the production of promotional or educational materials and related publicity, would likely fall within the domain of existing AAS staff who work on publicity, outreach, and community connections.

II. Award Costs:

Common components of a historical designation include:

- i. an *in situ* commemorative plaque and/or brochure. Either would include the name of the site, the name of the awarding society (AAS), the date of the dedication ceremony, and a brief description of the site's significance. The estimated cost of a plaque is \$1,200, depending upon the size, quality, and amount of text contained. It includes shipping.

The cost of printing a commemorative program is determined by the number of copies and style of printing. An estimate is \$100 at the low end, to a 5.5-inch X 8.5-inch document, professionally printed, at the high end. The latter could be done privately for \$600 to \$800.

- ii. a formal dedication. This event could range from a brief ceremony to a multi-day symposium with invited speakers. The cost to send a representative from the AAS (or HAD, or some other individual as appropriate) ranges from \$500 (for a one-day visit to a site within driving distance) to \$2,000 for a two-day excursion requiring airfare. These estimates assume only a single representative.

Expenses heretofore mentioned would be borne by the AAS. These might be supported, all or in part, by dedicated fund-raising. Other expenses associated with a dedication event (refreshments, invited speakers, venue) would be covered by the recipient institution.

In total, an approximate estimate of the cost per site designation, to the AAS, ranges from as low as \$2,500 to as much as \$7,000. Cost savings would be incurred if AAS members are utilized who are employed at, or live close to, a nominated site.² Alternatively, if a site has special significance to an AAS division, that division might be approached to contribute towards the site designation cost.

The costs of various elements of this program should be evaluated with regards to how well they can integrate with, and contribute to, other AAS programs and initiatives. For instance, holding a recognition ceremony for a historic site allows opportunity to productively connect with government officials and community representatives. Publicity surrounding the designation of a

² suggested by HAD member Virginia Trimble, who serves on the APS Historic Sites Committee

historical site can contribute to broader community awareness of astronomy and support recruitment and diversity initiatives if used well. While it would be possible to pursue some form of site recognition program with very minimal costs, such as maintaining just a web-list of member-designated sites of astronomical interest, it probably would have a much more limited impact.

Conclusion

A Historical Site Designation program falls with the AAS's Strategic Priority Goal to support astronomy education and science literacy initiatives.

This Task Force recommends developing a Historical Site Designation Program within the AAS. As a pilot, the program should be reevaluated in five years.

12/21/22