



NABO in the UNESCO BRIDGES Program January 31st 2020

Background: BRIDGES is a new UNESCO initiative now moving forwards as a sustainability science coalition proposed for integration in their MOST (Management of Social Transformations) intergovernmental science program. The intention of the coalition is to better integrate humanities, social science, and local and traditional knowledge perspectives into research, education and action for global sustainability through development and coordination of resilient responses to environmental and social changes at local and territorial scales. The BRIDGES logo expresses the aim of connection between knowledge holders, disciplines, and practitioners needed to better coordinate effective responses to rapid large -scale change. BRIDGES builds upon a previous UNESCO project:

“The UNESCO-organized project [Broadening the Application of the Sustainability Science Approach](#) was initiated in October 2015 with support of the Japanese Ministry of Education, Culture, Sports, Science and Technology (Japan/MEXT) to develop policy guidelines to help Member States harness the potential of sustainability science in their sustainable development strategies in order to respond more effectively to global challenges. The project was carried out over three symposia organized during a two-year period (2015-2017) to foster dialogue and collaboration among sustainability experts and policy-makers. The major output of the project was UNESCO’s policy document [Guidelines for Sustainability Science in Research and Education](#).

“In conjunction with the official launch of UNESCO’s SuS Guidelines during the 202nd session of the Executive Board of UNESCO (October 2017), discussions proceeded among selected UNESCO sectors and intergovernmental scientific programmes, as well as other international partners, to explore the potential for establishing a global coalition on sustainability science that would pick up where the project “Broadening the Application of the Sustainability Science Approach” left off. Promising exploratory discussions in 2018 led by the [UNESCO Management of Social Transformations](#) programme, the [International Council for Philosophy & Human Sciences](#) (CIPSH), and the [Humanities for the Environment Circumpolar Observatory](#) resulted in a robust multistakeholder process during 2019 to establish the BRIDGES – UNESCO MOST Sustainability Science Coalition.

The formation of BRIDGES as an international coalition is now proposed as a means to support and strengthen the sustainability science domain as it has developed over the past two decades. Following extensive visioning efforts and robust consensus-building workshops among leading institutional and organizational partners from around the world as part of the 2019 establishment process¹, the BRIDGES coalition is expected to launch in 2020 and thereby strengthen efforts of UN

¹ Organizing partners of the establishment process include: UNESCO’s Management of Social Transformation Programme (MOST), International Council for Philosophy and Human Sciences (CIPSH), Humanities for the Environment Circumpolar

member states to meet their sustainable development goals and obligations within the Agenda 2030 framework....The objective is to foster sustainability science as a renewed, integrated approach that builds from the Humanities, encompassing the Arts, the Social Sciences and the Natural Sciences, as well as other knowledge domains and communities, based on voluntary and equitable processes of collaboration that prioritize co-design, co-production and co-ownership. ("Toward The Establishment of Bridges: Action To Promote Sustainability Science," pp. 1-2)

NABO has had multiple successful collaborations with the Nordic Network for Interdisciplinary Environmental Studies (NIES) group linking natural science, archaeology, anthropology, environmental history, and environmental humanities, which have resulted in multiple publications. One appeared in the high-impact journal *Global and Planetary Change*, winning the 2019 St Andrews Article Prize in European Environmental History from the European Society for Environmental History (Hartman et al. 2017). NABO is an active participant in the IHOPE program (<http://ihopenet.org/>) with participation in both the IHOPE *Circumpolar Networks* group and the *Threats to Heritage and the Archaeological Record* group. NABO is also an active partner in the *Humanities for Environment (HfE) Circumpolar Observatory* (based at the Stefansson Arctic Institute, Akureyri Iceland; <https://hfe-observatories.org/observatories/circumpolar-observatory/>), one of the lead establishing partners in the BRIDGES coalition. These connections and the hard work of many NABO members have steadily raised our international profile, and we have now been invited to actively participate in the new UNESCO BRIDGES program.

BRIDGES 3rd Meeting: In October 2019, the HfE Circumpolar Observatory (led by Steven Hartman, Mid-Sweden U) chaired the 3rd establishment workshop of BRIDGES initiative in Sigtuna, Sweden, supported and hosted by the [Sigtuna Foundation](#). The 2019 establishment process finalized in Sigtuna called not only for the framing of an effective governance model for BRIDGES but also for the shaping of a viable plan enabling the coalition to translate its guiding principles into meaningful action for transformative change. There was broad agreement among the coalition's founding member entities that BRIDGES should develop an action framework, starting in 2020, that brings together diverse partners to design and implement a range of territory-based pilot projects and branded events, combining different knowledge sources and traditions and based on an underlying expectation of equitable collaboration and co-ownership among academic and non-academic partners.

NABO, NIES and the HfE Circumpolar Observatory group participated throughout the 2019 establishment process for the emerging BRIDGES Coalition. the field of archaeology was well represented in the most

Observatory (for the HfE global observatories network), Nordic Network for Interdisciplinary Environmental Studies (NIES). Consulting partners in the establishment process include: Arctic Studies Centre, Liaocheng University; Cappadocia University Environmental Humanities Center; Earth Politics Center, Michel Serres Institute for Resources and Public Goods; National Centre of Scientific Research, Paris; University of Iceland; French National Research Institute for Development (IRD); Future Earth; German Commission for UNESCO; Humanities European Association for Culturally Integrated Landscape Management (APHELEIA); International Council on Monuments and Sites (ICOMOS); International Federation for Modern Languages and Literatures (FILLM); International Science Council (ISC); Institut fondamental d'Afrique noire (IFAN); International Union of Prehistoric and Protohistoric Sciences (UISPP); the Kogi People, Columbia; National Library of Lithuania; North Atlantic Biocultural Organization (NABO); Nobel Prize Museum; Shared Studios; Sigtuna Foundation; Stefansson Arctic Institute; Stockholm Resilience Center; Swiss Academic Society for Environmental Research and Ecology (SAGUF), Swiss Academy of Sciences; Tairona Heritage Trust; The Third Pole; UNESCO Chair on Global Understanding, Jena University; UNESCO Chair on Art and Science for the SDGs, ICN Business School; School of Education, University of Bristol; Uppsala University Chair on Climate Change; Mälardalen University; Europa.Blog; and the World Academy of Art and Science.

recent Sigtuna workshop by participants from Portugal, Brazil, Iceland and the USA, including Marcy Rockman, Adolf Friðriksson and Tom McGovern of NABO, who promoted archaeology as a key bridging discipline with experience connecting across disciplinary boundaries and engaging with local communities to respond to widespread climate threats to heritage and science. Archaeologists are working in many areas to move from community outreach to genuine co-production of knowledge and their experiences are very relevant to the BRIDGES goals and agenda. Archaeological field schools have historically provided fertile ground for cross-disciplinary communication, public engagement, and sustained responses to threats to heritage. Our presentations in Sigtuna were well received, and we were encouraged to submit proposals in the coalition's initial review round for endorsement and inclusion in BRIDGES' inaugural portfolio of demonstration projects.

NABO Proposals: Our team presentation highlighted the evolving *North Atlantic Encounters Program* (NAE), which is working to connect projects in Scotland, Iceland, and Greenland (and beyond!) in a comparative study of long-term history and human ecodynamics in different island communities from prehistory to the near present. Due to the constraints of the competition (and the Nov. 1st 2019 deadline) the writing teams concentrated on the Greenland RESPONSE project and the Orkney GATEWAY project as separate but explicitly linked NAE projects. Both had secured funding and have field programs that are underway and seemed the best fit for the BRIDGES initial proposal template. Here are capsule descriptions taken from the proposals:

1) Gateway to the Atlantic: Climate change threats to heritage and island sustainability in the Northern Isles of Scotland

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The Gateway to the Atlantic Project aims to investigate the long-term resilience and human ecodynamics of Orcadian island communities in the face of global climate change, using sites spanning several millennia and approaches integrating the sciences and humanities. The project investigates sites that are directly threatened by modern day coastal erosion, rising sea levels and climate change and aims to engage, educate and train volunteers and students from the UK and around the world. The project is developing techniques of investigation and recording which will preserve crucial data on heritage which is being lost daily and will also investigate the mechanisms of loss in ways of use to other national and international endangered sites. The project aims to do this whilst training the next generation of researchers and educating and involving locals and visitors to the islands. This proposal forms part of a global response to combined environmental threats to local and world heritage and the unique scientific record held in stratified archaeological sites. This proposal builds on prior experience and international collaboration and will expand our understanding of long-term human-landscape-climate interactions in Orkney while strengthening research and education efforts in Scotland and building local capacity for heritage protection.

2) Response to Threats to Science and Heritage in Greenland (RESPONSE)

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The RESPONSE project in Greenland aims to 1) enhance environmental humanities, social science, environmental history, and local and traditional knowledge contributions to global change science in a key area for long term human ecodynamics research; 2) respond to urgent threats posed to basic data and heritage by the rapid loss of once well-preserved organic remains due to rising soil temperatures and accelerated coastal erosion; and 3) help build local and international response capacity and capability through community engagement and co-production of knowledge. This proposal forms part of a global response to combined environmental threats to world heritage in diverse sites and territories, especially the unique scientific record now imperiled in stratified archaeological sites, and is affiliated with the *Society for American Archaeology's Climate Change Strategies and the Archaeological Record* committee (SAA CCSAR), *European Archaeological Association*, and the *Integrated History and Future of People on Earth* (IHOPE) *Threats to Heritage and the Distributed Observing Network of the Past* teams. The past decades have seen rapid environmental change in the circumpolar north including dramatic reduction in sea ice, increasing storminess, and rapidly rising soil temperatures. Soil temperature increases pose a special threat to preservation conditions in archaeological deposits of all periods in southwest Greenland. Both extensive archaeological survey and testing and recent instrumental studies (Hollesen et al. 2016) have documented catastrophic loss of once well-preserved organic remains as a result of threshold - crossing soil chemistry changes associated with loss of seasonally frozen ground. Just as new laboratory studies making use of stable isotopes, trace elements, and ancient DNA demonstrate the value of archaeological sites as a “distributed observing network of the past” for collaborative interdisciplinary global change research (Hambrecht et al. 2017) we are seeing unprecedented threats to our basic record. This proposal requests certification as a BRIDGES-sanctioned initiative leading effort to coordinate an international response to threatened environments, sites, cultural heritage and scientific data now at risk due to the accelerated rate of warming-induced environmental change in Greenland. The program it encompasses builds on prior experience and international collaboration and will expand our understanding of long-term human-landscape-climate interactions in SW Greenland. Also strengthening Greenlandic research, education and training efforts RESPONSE will build local capacity for heritage protection as well as scientific and local community-based co-production and resourcing of knowledge through equitable partnerships spanning research institutions, educational institutions, cultural and scientific institutions within civil society (e.g. museums, libraries and archives) and local participants representing diverse societal stakeholders and interests.

Success: Both projects reviewed very well, and both were selected for UNESCO BRIDGES project endorsement in the initial 2019 round. We expect to submit additional NAE projects in the Outer Hebrides and Iceland for review in forthcoming application rounds, and we are collaborating with both the NSF-funded *DataARC* program (<https://www.data-arc.org/>) for data management and discoverability and the *Bifrost* digital media team (<https://bifrostonline.org/>) to advance the inter-connection projects and to build added value across territorial cases and sites in the circumpolar north. We will now work closely with the BRIDGES team as the initiative is expected to come online fully in 2020 within the UNESCO MOST

program and we will build upon UNESCO endorsement and sponsorship to pursue additional funding and to attract potential collaborators and partners.

We will post more on the UNESCO connections as they develop. Many thanks to all who have worked to get us this far!