



RESEARCH ARTICLE

What Can the Public Humanities Learn about Impact from the Environmental Humanities?

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Abstract

We present two examples of how the environmental humanities have built bridges with governments and made effective policy interventions. Lessons can be drawn about how public humanities can help develop social and cultural understanding and societal resilience.

Keywords: sustainability; knowledge systems; historical evidence; interpretative framework; future imaginaries; humanities-policy interface; impact

The public humanities aim for maximum social impact – scholarship that makes concrete contributions to pressing social problems here and now. However, it is often difficult to assess the immediate impact of research. Findings based on philosophical, historical, or aesthetic modes of inquiry can take years—even generations—to filter through systems that are resistant to change. Impact may occur at a time very distant from the research activity and is therefore difficult to measure.¹ This challenge is not exclusive to humanistic fields of scholarship. Examples include the discovery of the health hazards of tobacco or the benefits of seat belts in cars. On the positive side, the challenge of demonstrating the impact of the humanities in the public sphere has models of proven success in the field of environmental humanities.

As a field of inquiry and engagement, environmental humanities has developed in the last few decades at pace with the growing understanding that humans are part of – and change – living conditions on the planet. Ultimately, the aspiration is that humanities research can help build social and cultural understanding *and* societal resilience.² These are tall orders, but there are successful examples of how the humanities have built bridges to governments and made effective policy interventions. The two case studies presented below are truly global in scope, involving researchers and practitioners from all continents (excluding Antarctica). BRIDGES Coalition exemplifies how the humanities can engage

¹ Reale et al. 2018.

² Holm et al. 2015; Holm and Brennan 2018.

intergovernmental processes for wider impact, while OPI demonstrates the value of drawing on historical records for evidence in management strategies and practices.

The UNESCO-MOST BRIDGES coalition

What in due course would become the BRIDGES Coalition was indirectly initiated in 2015 through UNESCO's project "Broadening the Application of the Sustainability Science Approach." This two-year project aimed to assist member states in fulfilling their commitments to the 2030 Agenda, the sustainable development goals (SDGs), and the Paris Agreement, all of which were being formalised in 2015.

From 2015 to 2017, UNESCO led several international workshops under this project, engaging the Humanities for the Environment network, among other regional programs, institutions, and organisations. The HfE was represented by Professor Steven Hartman. The workshop consultations informed UNESCO's science and education policy-advisement document "Guidelines on Sustainability Science in Research and Education".³ The Guidelines called for enhancing sustainability science and, in the process, reconfiguring the field to include vital though previously underrepresented actors and knowledge domains. Among other things, the guidelines advocated a central role for the humanities in sustainability science, the integration of local and traditional/Indigenous knowledge systems, and the promotion of transdisciplinary, interdisciplinary, and multidisciplinary research models as parallel means to support convergent approaches to knowledge production in the field. The ambition was to help develop and promote a cohesive and convergent field better able to address the entangled environmental, economic, and social challenges of the 21st century and lend support to member states seeking to meet these challenges through effective policy solutions.

The call for humanistic disciplines to play a greater role in this effort reflects an increasing recognition that the humanities, as a core scientific/knowledge domain, have an indispensable part to play in integrated knowledge production. The expectation that the humanities should serve, instrumentally, as a messaging conduit for translational research from basic and empirical sciences is no longer regarded as reasonable, or desirable, in light of the challenges facing societies around the world.

As the project approached its culmination, a number of stakeholders involved in the initial UNESCO initiative on "Broadening the Application of the Sustainability Science Approach" recognised the limitations of a top-down approach at odds with the very modes of engagement called for in the Guidelines. The usual process by which an intergovernmental organisation (in this case UNESCO) facilitates knowledge-based policy advancements involves targeted high-level discussions with delegations, commissions or committees in various intergovernmental and Member-State contexts, and thereafter through possible secondary exchanges within Ministries of Science, Innovation, Education, or Environment at sub-national levels. However, models of stimulating change exclusively from the top down place unreasonable and probably unrealistic expectations for wider uptake and implementation on the efficacy of pivotal high-level exchanges. A more comprehensive application of the knowledge generated by sustainability science in our societies depends on meaningful

³ UNESCO 2017.

systemwide efforts to actualise consilient knowledge exchange transversally across the full spectrum of scientific domains in the academy. By the same token, co-productive capabilities for knowledge generation between academic sciences (including the humanities) and non-academic knowledge communities (including but not limited to local, traditional, and Indigenous knowledge systems) depend on comparable stimulation and capacity building as vital grass roots and sector bridging complements to top-down science-policy efforts.

Such challenges were recognised by UNESCO's Social and Human Sciences sector, the International Council for Philosophy and Human Sciences (CIPSH), and the Humanities for the Environment Global Observatory Network, all key stakeholders in the original UNESCO Sustainability Science project (2015–2017). Accordingly, these organisations together launched a follow-through initiative in 2018 that sought to complement the high-level policy-advisement model of UN organisations by innovating a global structure, anchored in UNESCO, that could promote the building of local, national, regional, and international capacities in the sustainability science domain both transversally and from the bottom up. Previously marginalised if not absent in mainstream sustainability science and the science-policy interface, the humanities would be placed at the centre of this emerging program, without presuming to defining that centre in its totality. The program envisaged would seek to complement and collaborate with other global actors: e.g. Future Earth, CIPSH, HfE, the International Social Science Council (ISSC), and the International Council of Science (ICSU), the latter two merging into the International Science Council (ISC) in 2018. These organisations were increasingly acknowledging the need for a more convergent field of sustainability science, as they have continued to do,⁴ though often with their own disciplinary clusters or scientific domains serving as semi-siloed action spaces and normative centres of gravity.

As a secondary outcome of the UNESCO sustainability science project, the emerging BRIDGES Coalition placed emphasis on integrating knowledge communities from the humanities, qualitative social sciences, arts and educational sciences, and traditional and Indigenous knowledge systems that had previously been under-resourced in the field of sustainability science. Establishment of the BRIDGES Coalition involved four additional international workshops organised in Portugal, France, Sweden, and Turkey over the period 2019–2021. This process drew on a fuller and more diverse community of stakeholders in the co-design of the emerging coalition, global in scope and programmatic in its implementation. The coalition's governance would be anchored in UNESCO's intergovernmental Management of Social Transformations (MOST) programme. The stakeholder community that came together included academic institutions, scientific councils, study associations, NGOs, funders, intergovernmental programs, and local entities, including indigenous communities.

The resulting BRIDGES Coalition was endorsed by the Intergovernmental Council of MOST and held its first general assembly in 2021, with the participation of 45 member organisations and strategic partners. Now in 2024, the number of member institutions and regional hubs anchoring this coalition has expanded significantly, with global hubs sponsored by Arizona State University, University of Wales Trinity Saint David, University of Pretoria, Princeton University, City University of New York, University of Cologne and the Club of Rome, as well as an international programme office in the UK.

⁴ Hackmann and St. Clair 2012 and more recently Kaiser and Gluckmann 2023.

As the first humanities-led international sustainability science programme within UNESCO and the wider family of UN agencies, the BRIDGES Coalition is working not only to demonstrate the value of knowledge domains from the humanities, social sciences, educational sciences, arts and cultural domains, among other knowledge and action communities, but also to change the way in which we think of the interrelation of these domains to the fundamental and empirical sciences as understood in traditional or mainstream ways, for example in the cluster of disciplines and subject areas envisaged within the more limiting concept of STEM.

One of the first initiatives undertaken in 2023 by UNESCO-MOST BRIDGES was a mapping of humanities-led, community co-produced sustainability initiatives in different regional contexts.⁵ This ongoing initiative seeks to identify, map, and showcase projects that demonstrate the value of innovative humanities-driven initiatives (historical, aesthetic, educational, philosophical, anthropological, archaeological, artistic, and literary). Community anchoring and transdisciplinary co-production with mainstream environmental sciences also characterise many of the projects showcased in the pilot phase of this initiative, exemplifying initiatives from over 30 countries and territories around the world. The BRIDGES Coalition also enabled the humanities to co-organise and present at three sessions of COP 27 in November 2022 and more recently led the organisation of a transdisciplinary high-level event at the United Nations headquarters during the Summit of the Future Action Days in September 2024.⁶

Oceans past initiative

The Oceans Past Initiative (OPI) is a global network for marine history research, involving a variety of human (mainly history, archaeology and anthropology) and natural sciences (such as ecology, genetics and fisheries management) (<https://oceanspast.org/>). Its main aim is to identify when, how, and why humans have affected life in the oceans and the consequences for society. The network was established in 2000 (then named HMAP)⁷ and organises biennial conferences. It is a case of how humanities research may inform policy and management.

OPI was a catalyst for the introduction of long-term (centuries to millennia) perspectives into marine management. This approach was formally adopted by the International Council for the Exploration of the Seas in 2010. ICES advises governments in the North Atlantic on fisheries management. Historical baseline information has since been adopted by national government agencies in Australia, South Africa, Europe, and North America,⁸ and the research was recognised as one of the ‘12 Compelling Cases for Policymakers’ of humanities research.⁹ While OPI originated as a humanities-led project, it is now broad-based across disciplinary divides. This development reflects the wide recognition of the relevance of historical perspectives for inter-governmental initiatives such as the UN Decade of Ecosystem Restoration and of Indigenous and local ecological knowledge for land and sea management.

⁵ UNESCO-MOST BRIDGES Coalition 2023.

⁶ United Nations WebTV 2024.

⁷ Holm et al. 2001.

⁸ Engelhard 2016.

⁹ Science Europe 2013.

OPI has indirectly supported a number of large-scale research projects, including several European Research Council projects, worth tens of millions of euros. While most OPI projects are fundamental research with no direct applicability, the fact that conferences are routinely attended by managers and publications often get considerable media coverage alerts researchers to the potential implications of findings for policy. Obstacles include translating historical data into actionable strategies and convincing stakeholders to consider long-term historical changes when making decisions about marine resource management.

One example may indicate how obstacles may be overcome. A clearcut case is current attempts at rebuilding oyster reefs in Europe and North America. Filter-feeders such as oysters and molluscs are important not just for the food they produce (and which in many waters today may be heavily contaminated and not suitable for consumption). Reefs provide wave breaks that protect wider coastal habitats and shorelines and will be critical to protect human settlements from sea rise and storms. However, oyster reefs were largely fished out and trawled down more than a century ago. Mapping historical habitats is therefore an important tool for designating future attempts at planting and rebuilding reefs. Historians and marine ecologists are therefore directly working with marine restoration authorities and raising local awareness and community engagement.¹⁰

However, historical evidence is often overlooked even when researchers publish their data to the highest standards. The missing links are data visibility, compatibility, and interoperability as well as lack of communication channels. An example is the recent decision by the Canadian government to lift the moratorium on fishing in what was once the world's largest cod fishery. The lack of proper management of the Northwest Atlantic cod stocks caused the loss of sustained catches of +300,000 t cod – equivalent to a landed value of CAD 476 million in 2019 prices.¹¹ This is a staggering loss of wealth opportunity for one nation—not to speak of the ecological consequences of the destruction of an immense biological regime. The government decision was taken after the addition of 15 years of catch records back to a new baseline of 1954 to inform a single-species management plan. However, much better data has been published in the last 20 years, which simply have not been picked up by managers. The modelling supporting this decision is therefore seriously compromised.¹²

The obstacles to implementation are not only a question of communication. The real obstacle may be one of how history may inform future imaginaries. The OPI management has recently expressed concern that historical data are sometimes dismissed as irrelevant because of climate change. The paradoxical argument runs like this: the oceans are warming, marine life is changing rapidly with many species moving out of nurturing and/or foraging areas to cooler waters; therefore, the future cannot be predicted on the basis of historical data, and what comes next will be 'no-analog' to the past.¹³

OPI has countered by emphasising that "the statement fundamentally renders us blind. All we have are data of the past, the future cannot be sampled".¹⁴ It is paradoxical that the observation of climate change—which could only be made by drawing on long historical data series—is now being used as an argument against the relevance of historical information. The rationale is also fraught with questionable assumptions. Some of these concern the

¹⁰ Pogoda 2019; Thurstan et al. 2024.

¹¹ Rebuilding 2021.

¹² Schijns et al. 2022; Holm et al. 2022.

¹³ Williams and Jackson 2007.

¹⁴ Holm et al. 2024.

relation (and the relevance) of past to present and future environmental conditions, as well as the anthropogenic causes and effects that factor into the emergence of these conditions. Others concern the presumed in/validity of informed insights on processes of social-ecological change deriving from traditions of systematic study that may be distinct from those of fundamental sciences or empirical natural sciences. Much of the humanities exists in this space.

Perspectives

Public humanities may be misunderstood sometimes – perhaps especially by colleagues from the natural and technical sciences – as effective communication of research findings originating from outside the humanities. Such a conception privileges notions that the humanities are only valuable as instruments in the service of a larger scientific agenda that we have no right or role to be setting. Such a misunderstanding can still have value, not least as an invitation to speak up – perhaps on behalf of other sciences but also to showcase the value of humanities inquiry.

Noel Castree has compared the environmental humanities to the field of conservation biology. Researchers in both fields, Castree noted, can be said to share a sense of their fields being crisis disciples, as a new – or reconceived – “mission-orientated endeavor with pressing timelines”.¹⁵ Certainly, this seems as fitting a motivation as ever to our understanding of humanities *for* the environment in the historically unprecedented age we are living in, of anthropogenic change to land and water and atmospheric systems.

The fundamental purpose of humanities, like all sciences, is to provide society with an evidence base and interpretive framework for examining data, generating insights, producing knowledge, and developing ways of thinking to overcome challenges and enjoy life. Research is crucial for understanding change and imagining the diversity of possible futures. In this sense, public humanities is not just about public dissemination after the production of knowledge.

A large-scale European evaluation of *impactful* research in the humanities and social sciences¹⁶ concluded that research with social impact is *collaborative*, involving researchers from different backgrounds, local organisations, disadvantaged end-users, and engaged policymakers; *co-creative*, involving research beneficiaries in the co-creation of knowledge and including them in the dissemination strategy; and *cumulative*, building on achieved impact (scientific, political, or social) to leverage subsequent social impact. Cumulative effects can be created through various channels, such as building on expert academic networks and increasing the likelihood that citizens will utilise the research results if they are aware of improvements that have already been achieved. In short, impactful research tends to have an active strategy for achieving such impact. In short, research leads must coordinate between projects’ and stakeholders’ activities, and dissemination activities must show useful evidence and create space for public engagement, deliberation, and dynamic feedback.

Public humanities must include each of the processes involved in scholarly inquiry. These processes extend from identification of intellectual and societal challenges and formulation of appropriate research questions, through modes of fundamental and empirical

¹⁵ Castree 2020, 36.

¹⁶ Aiello et al. 2021.

investigation to generalisation, model building, and other applications of insights generated. Engaging end-users as crucial stakeholders of knowledge produced and as agents that factor significantly into feedback loops is a crucial step.

Such processes also include the infrastructural, institutional, and funding parameters of research. However, the humanities are typically poorly funded and lack the institutional and infrastructural support mechanisms that speed up the interaction between research and impact. Concomitantly, the humanities have developed a research culture that often prioritises the lone-scholar model that fits an under-resourced reality. It is imperative that we strategise effective means to overcome this reality by mobilising resources and learning from what works, including learning new ways of conducting research (e.g. in interdisciplinary or transdisciplinary configurations, or teams) that draw on the strengths of other research traditions and methodologies. Such adaptation “requires significant adjustment to how we work and how we measure the impacts of our work as scholars, researchers, educators, disciplinary practitioners, institutional members and public servants. This implies paradigmatic, structural changes to our institutions. Such changes are not self-realising, nor self-incentivizing. They require advocacy at many levels throughout our disciplines and in our profession”.¹⁷

The humanities represent an enormous knowledge pool that is today tapped often in haphazard or contingent ways. We contend that by building coalitions and engaging in targeted research challenges, the humanities will be a force for good in the quest for pro-environmental behaviour.

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¹⁷ Hartman 2020, 196.

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