

Art-Science: Collaborations, Bodies and Environments

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Introduction

This two-year, international research project addresses contemporary art-science collaborations through field-work with key organizations and individuals. Engaging with the practices and experiences of the production, dissemination and reception of art-science collaborations, the project seeks to understand the institutional, political, epistemic and technological conditions that not only enable these collaborations to emerge, but that also shape their development and wider impact. More broadly, the project looks to situate these collaborations in the context of ongoing debates across the humanities and social sciences regarding post-humanism; contemporary engagements with bodies, environments and the cosmos; and pedagogic challenges to disciplinary practices. The research is conducted by an international team of eight researchers whose experiences span the sciences, social sciences and the arts, and is jointly funded by the National Science Foundation (USA) and the Arts and Humanities Research Council (UK).



Background

Despite a modern-day, institutional compartmentalization that seeks to distance the arts from the natural sciences, these revolve within a shared history characterized as much by negotiation, mutual learning, and symbiosis as by the search for fundamental difference. And, it is the recognition of this shared history, as well as a desire to draw upon it as both intellectual resource and source material, that helps drive the emergence of present-day art-science collaborations. Engagingly diverse in regard to the mechanics and goals of the collaborative process, these efforts share the need to conceptualize and work through the repercussions of this same compartmentalization. It is our intent to explore and learn from this multi-faceted, collaborative endeavor, drawing out its impulses, philosophies, products and wider intellectual and public import. We want to:

- Take stock of and evaluate predominant trends within art-science collaborative endeavors;
- Identify those contexts, mechanisms and procedures that have facilitated dynamic and engaging forms of collaboration, as well as impediments to the same; and
- Consider the wider intellectual and public impacts of such collaborations.

As a team, we bring to this project a ‘geographical imagination.’ That is, in locating, thinking through and researching our objects of analysis we draw attention to the manner in which their spatialities, mobilities and relative locatedness in socio-political, institutional and other contexts are of import. Such an approach marries a sensitivity to the situatedness of practices with an acknowledgement of their place as nodes within larger networks of activity and discursive formations. It also emphasizes the active re-ordering of people and their built and ‘natural’ environments within these collaborations, as well as our understanding of disciplinary, cosmological and corporeal boundaries.

Geography is primed for this research because of: the sustained emphasis upon *in situ* fieldwork and methodological practice; its long-term exposure to the humanities via the cultural turn, including art, dance and music; the continued, keen interest in expanding and discovering new methodologies and perspectives; and because its trans-disciplinary, theoretical horizons have substantially broadened in the past fifteen years, taking into account a post-phenomenological rendering of the human, interrogating questions of nature, landscape and environment and exploring the social and political implications of aesthetics and cultural practices.

Research Questions and Methods

We are especially interested in investigating:

- The collaborative practices, material resources and knowledges through which particular works are made;
- How such collaborations tackle the ethical and political dimensions of complex problems;
- The institutional and financial resources and conditions that help frame these collaborations; and
- The relationship between these collaborations and public access and debate.

Our research questions fall into six general areas,

(a) Institutional settings. Here, we are interested in how the collaborative site is framed as an organizational culture (individual or collectivist, hierarchical or democratic, nurturing or competitive), as well as the financial environment within which collaborations are allowed to emerge, and within which they operate.

(b) Political milieu. We take a broad view of ‘the political’ here, including political ideologies but also allegiances, commitments, impacts, and the role of government policy and ethics, and the relationships between art and new micro-political attentions to the subject.

(c) Epistemic structures. Among the binaries around which scientific-artistic collaborations circulate are many that have been fundamentally shaken *by* artistic and scientific (social, physical, and life) advances, including human/machine, culture/nature, space/time, individual/society, intuition/reason, mind/body, and aesthetics/functionality.

(d) Employed technologies. Technology is a material nexus that operates at all the interstices of our project. Mediating knowledge regimes, bodies, and objects, diverse technologies stratify and smooth the complex relations of both laboratory and studio life.

(e) Artistic form and content. In making the decision and the significant effort it takes to collaborate across both perceived and material divides, what practices are artists and scientists enacting that challenge these divides and how well do they work in dissolving or negotiating them? Given that these collaborations operate at the heart of the research project, it is critical to interrogate the particular ways these collaborations operate in practice.

(f) Public impact and audience engagement. Whether looking to advance public knowledge about science or to offer art audiences a new experience those who produce and manage art-science collaborations are engaged in a series of on-going debates around how to extend existing audiences, manage their expectations and in some case to develop new audiences and new spaces to show the fruits of these collaborations. Through engagement with both the producers (artist-scientist teams, curators and cultural producers) and a range of the ‘consumers’ of these collaborations, we seek to determine how they come to comprehend and appreciate the objects of collaboration, as well as the “crises and discoveries” they are meant to communicate, and the varied ways in which this work is situated within the international contemporary art world.

Methods and research data

In order to investigate these collaborations we are carrying out a multi-sited study of leading, contemporary collaborative projects involving diverse groups of scientists and artists. These analyses will involve a mixture of archival research, participant observation and practices, interviews, focus groups and visual, textual and multi-sensory analysis of art works and associated documentation, whether video, audio or textual. During our time with the organizations we will be looking to develop a sense of: organizational history and development; networks of interaction; best practice developments; and a series of in-depth case studies of individual collaborations developed by the organizations. In the latter case this will include both projects the organization has initiated in the past as well as ongoing collaborations. We will look to explore the biographies and modes of practice of the collaborators, and crucially, where possible, to examine at first hand collaborative practices, as well as the ways in which these collaborations are exhibited and developed by all the various artists, scientists and organizations involved.

Project Outputs/Impacts

Publications (academic/non-academic)

Material generated during the project will feature in a range of publications. Alongside research papers targeted at international peer-review journals across the humanities and social sciences, the research team will publish in journals including *Nature*, *Science* and *Leonardo*. The team also intends to produce a research monograph and at least one edited book.

Educational Impact:

Our project works Art-Science examples into geographical teaching at undergraduate and post-graduate levels through a series of lectures and workshops. We will also be writing features for geographical publications based at School level audiences.

Art-Sci Collaborations and Organizations:

In consultation with the organizations we study the project team are actively seeking ways in which the research process and its findings might be of value to the art-science community. This may include the development of resources and archives, the facilitation of research agendas or the production of documents that detail context specific or more broadly applicable studies of 'lessons learned'.

Funding Bodies:

If a deeper thread running through all these projects be discerned, it may be a new phase in science-art relations that has the ability to transform the way we train students, organize universities, and disseminate knowledge.

Capacity Building:

The research team will head up a series of grant applications targeted at academic research funding bodies that aim to facilitate communication across the difference sectors of the academic and art-science community, this will include funds for networking activities, artists-in-residence programs and seminar and workshop series.

The Research Team

The International project team, consisting of eight people is headed up by Principal Investigators Professor Sallie Marston (School of Geography and Development, University of Arizona USA) and Dr Deborah Dixon (Institute of Geography and Earth Sciences, Aberystwyth University UK).

Project Team:

Principle Investigator: Professor Sallie Marston (University of Arizona)

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