

## DOCUMENTING EXTANT CULTURAL COLLECTIONS: A TRANSFORMATIONAL CHALLENGE FOR THE SOCIAL SCIENCES

Alex W. Barker

The National Science Foundation has requested white papers identifying the grand challenges or questions facing the social sciences to help it plan programmatic responses for the next decade. Certainly there are big questions addressed directly through anthropological inquiry, ranging from the rise of social complexity from putatively egalitarian origins to the origins of food production, and from social responses to environmental change to the construction of biologically-based but culturally-constructed concepts like gender or age. These are compelling questions; moreover virtually all big questions in the social sciences must have an anthropological component, if only to assure that the results are not applicable only to a single culture or a single set of historical circumstances. Anthropological research may be understood as comprising both questions unique to anthropology as a discipline, as well as the extension of broader social science questions and problems across diverse cultures and into the literate and preliterate past, offering the deep longitudinal breadth necessary to address grand challenges in understanding--or even documenting--larger changes in the human career.

Many of these questions cannot be adequately addressed without baseline data charting changes over long periods of time, or examining the degree to which observed behaviors and social responses are culturally specific, culturally constrained or are inflected in specific ways in given cultural contexts. These are precisely the kinds of data which anthropological inquiry provides. Globalization, industrialization and transformation of both the physical and social landscape offers a fertile ground for new research, but at the same time these processes have resulted in the loss or vulnerability of a range of both traditional cultural practices and of *in situ* cultural resources documenting the variability over space and time of human strategies for survival and success. The archive of these practices and resources lies, for the most part, in the nation's museums.

This crucial archive is not currently supported by existing NSF social science programs. Funding may be sought for discrete research projects employing museum-curated collections, and museum-based researchers are certainly competitive in seeking research funds from current programs. And museum-based anthropologists can and frequently do receive funding for informal science education projects and related forms of public program support. Management of the collections themselves, however, the core archive on which depend both systematic study of material objects and the status of anthropology as a scientifically replicable or at least recheckable discipline, remain unfunded and unsupported by the National Science Foundation. These collections represent the core databases on which a significant and growing proportion of substantive anthropological research must be based, and they arguably represent one of the most fragile and vulnerable databases in the social sciences. Minimally I recommend creation of a funding program to support curation of anthropological and related cultural materials, and implementation of policies as part of existing grant competitions to require PIs to make appropriate arrangements for the curation and accessibility of materials arising from their research activities. This minimally addresses a key infrastructural need clearly documented by nearly two decades of research on what has rightly been called the "curation crisis."

In other disciplines major infrastructural initiatives often support ambitious facilities generating new information--the large hadron collider, for example. In many of the social sciences an equally ambitious and interdisciplinary project would be documenting and making available the information already present in existing facilities, including both museums and university departments/archives.

The fundamental question, then, is what data are already available but unknown in the nation's museums and repositories? At this point it's known that the scale is enormous, but little other substantive data are at hand. Current research competitions in the field-based social sciences support projects which generate new data (in some cases, such as archaeology, by impacting remaining in situ cultural resources) without clear knowledge of whether the data to address these questions may already have been collected. These collections may be housed in a range of kinds of institutions and categorized under a range of rubrics (art collections, ethnographic collections, historical collections, anthropological collections, archaeological collections, or natural history collections, among others), making the relative significance or even existence of important datasets relatively unknown to scholars. Surely knowing what kinds of data are already available should be a necessarily precursor to determining what kinds must be collected next?

A survey of extant collections to determine the scope and character of existing collections, and to make these resources more readily available to researchers of all kinds, would be a truly grand challenge, transforming our understanding of both cultural institutions and how their collections could be used to document and interrogate processes of social and environmental change. It would represent the single largest, most ambitious and most transformational infrastructural improvement possible in the field-based social sciences. NSF has previously demonstrated a commitment to the development of metadata standards and cross-institutional data access in the biological sciences; such an initiative involving cultural collections is in many ways more crucial because of the greater diversity of descriptors and nomenclatures currently used in collections documentation, but in some senses may prove more tractable because of advances in both flexibility of database architecture and the prior existence of cultural metadata standards (CIDOC, Dublin Core, etc.) in several forms. The challenges previously faced by many museums in complying with provisions of the Native American Graves Protection and Repatriation Act (NAGPRA), particularly those requiring full survey, identification and reporting of objects actually or potentially covered by the Act, may also prove instructive in this regard, and much of the institutional memory regarding how the provisions of the Act were originally met is now being lost. An ambitious, long-term project of this kind is thus timely both in terms of the research questions being asked and the human resources necessary for its completion.

An initiative of this kind would bring together anthropologists of all kinds--ethnologists, linguists, physical anthropologists and archaeologists, among others--with scholars from cognate social science disciplines including geography and spatial sciences, paleontology and biology, economics, climatic and environmental studies, and the economic and political sciences as a community to determine how to make the information held by the nation's museums accessible and useful to the full range of disciplines interested in the questions these data could address. It would help link public and private institutions in continuing and compelling ways, expand ongoing efforts to improve outreach programs to a range of diverse audiences, enrich informal science education initiatives, and support digital repatriation projects both serving descendant communities and helping foster collaborative projects including them as partners, while encouraging inter-institutional projects focused on both substantive research and the communication of research results--and the availability of resources promoting research-- to a diverse range of audiences. It would also provide crucial data for policymakers and the public regarding what kinds of information are already potentially available to address questions of broad social concern, supplementing the kinds of data now offered by the NSF programs including the Science Resource Statistics program.

I would respectfully propose five related initiatives to address these fundamental infrastructural issues and frame a grand vision for field-based social science research over the next decade: 1) develop and deploy a metadata standard for the description and documentation of cultural collections in consultation with the main scholarly organizations involved in both anthropological research and museum anthropology; 2) initiate a national survey of the scope, character, accessibility and utility of extant cultural collections in museums or other entities eligible to receive federal funds; 3) create a funding program separate from existing research competitions to support the curation, care and broader accessibility of cultural collections capable of addressing larger social issues and substantive research questions; 4) encourage and support innovative research projects that effectively harness extant collections to address important research issues; and 5) revise existing grant guidelines to require that principal investigators make appropriate arrangements for the curation of both physical objects or samples resulting from their research and all associated documentation, in formats congruent with the datasets established through the national survey (identified here as the first priority).

Compliance with NAGPRA was legally required; participation in a national survey of cultural collections could not be. But by linking participation in the survey to eligibility to compete for funding to support both care/documentation/enhancement of existing collections on the one hand and innovative research projects focusing on extant collections on the other, most museums or academic departments would recognize clear and compelling reasons to participate. Because collections continue to grow, establishing standards that collections-holding entities could use in the future, as well as mandating that NSF-sponsored research would generate collections organized for deposit at museums or other collections-holding facilities that correspond to these standards, will ensure that the initial infrastructural investment continues to pay dividends for future generations.

Sometimes the big questions which must be addressed if substantive and transformational disciplinary growth is to occur are not research questions at all. Sometimes the big questions involve how to organize or capture existing information in ways that permit the potential of that information to be fully realized, and tackling projects too large for individual institutions or consortia of institutions to effectively address piecemeal. That is certainly the case in today's field-based social sciences, and the National Science Foundation is uniquely positioned to address these needs. Nor is such a role for NSF novel; eighty years ago at the Indianapolis Conference the precursor of NSF brought together scholars and museums to create a framework for making initial sense of these disparate cultural materials then being collected. Today we face another such transformational moment, a moment in which we need to understand what information is already available, identify strengths which can be used to address compelling research questions, and identify weaknesses or gaps in existing datasets which must be filled by deliberate and sustained field research.

I would submit that the biggest question facing the social sciences is not a particular theoretical problem, however compelling or intriguing, but how to document, organize and make accessible the data already amassed through field research so it can be effectively used to answer both the big theoretical questions identified by the current generation of scholars and the equally profound questions to be identified by the next. I would further submit that NSF is uniquely and solely positioned to address this question. Existing federal programs which support cultural collections focus specifically on the humanistic value of collections (NEH and NEA) or on broader popular appeal (Institute for Museum and Library Sciences) rather than the scientific merit and utility of museum-based datasets.

Unlike many such grand visions, the challenge proposed here is of relatively modest budgetary cost to NSF. The primary costs are reckoned in terms of institutional focus and direction--certainly not

inconsiderable issues, but in some ways more manageable than massive cash outlays. This strategic direction is further supported by more modest funding programs to maintain and improve the archive on the one hand, and to encourage the kinds of innovative research made possible by the larger survey and establishment of metadata standards on the other. If achieved, this grand vision will fundamentally transform our understanding of extant research resources; unlike many such initiatives, however, these real benefits to society will accrue not from any particular outcome but from sustained pursuit of the larger goal.

This work is licensed under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-sa/3.0/> or send a letter to Creative Commons, 171 Second Street, Suite 300, San Francisco, California, 94105, USA.

This work has been reviewed and endorsed by the Council for Museum Anthropology, and is being transmitted under separate cover by the American Anthropological Association