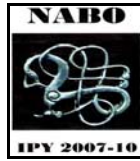


NABO 2008 Bradford Community Statement



Problems, Potentials, and Progress In North Atlantic Human Ecodynamics

One of the major objectives of the 2008 North Atlantic Biocultural Organization meeting hosted in August 2008 by the *Department of Archaeological Sciences* of the University of Bradford, UK was to make use of the several people-centuries of collective experience in laboratory and field research, museums, education, and public outreach that had gathered together to develop a draft community statement of major problems facing all of us and specific recommendations for collective effort to move forward. The meeting featured both breakout sessions and whole group discussions of major themes emerging, and this document represents a first draft synthesis to be circulated for wide community discussion, expansion, and revision. We are particularly concerned to get the input of scholars not able to attend the Bradford meeting, and we are posting this collective assessment statement on the NABO website (www.nabohome.org) to attract additional comment and input from the widest possible range of scholarship. Following revisions we plan to submit it for publication in the *Journal of the North Atlantic* (JONA) as a sense-of-the-scholarly-community statement.

Available Scientific and Scholarly Resources

Progress over the last two decades: There was wide recognition at Bradford that international, interdisciplinary investigations of the North Atlantic have come a very long way since NABO was founded in 1992. Many who were then students or junior faculty are now professors, institutional and logistical resources have dramatically expanded across the region and several major international and national funding initiatives (most recently the *International Polar Year 2007-10*) have attracted significant sustained funding support to our once-marginal research area. The growing number of younger researchers now in the pipeline (and so well represented at NABO 08) suggests that the near future is likely to see further expansion of new projects, analytic approaches, and growing intellectual synergy.

Distinctive research environments: The international, interdisciplinary perspective of the original NABO research cooperative has positioned us to make significant contribution to the increasingly influential *human ecodynamics* approach to complex long term interactions of humans and nature. This requires pooled expertise ranging from saga analysis to palynology and requires multiple tools (GIS, modelling) to effectively integrate the many diverse data sets now themselves still undergoing rapid expansion. While at one point the N Atlantic could be characterized as under-researched, remote, and poorly known, it is today a dynamic research area for sustained collaborative investigations of island ecodynamics and early globalization. Long-term studies fostered by interdisciplinary, international groups like NABO have proved to be some of the most valuable contributions to creating in-depth, truly integrated knowledge from many disciplines. Different approaches deliver results at different rates and long term studies have proved vital to both the

creation of interdisciplinary data sets and the development of truly integrated research; long-term studies have enabled many more questions to be tackled than first envisioned, and with greater rigor.

The North Atlantic and the NABO research and education cooperative are now serving as models for similar developments in the Caribbean and Indian Ocean, and NABO is now actively collaborating with scholars in these regions. While many of us would now like to modify some of the stories told by Jared Diamond in his 2005 best seller *Collapse*, it is surely significant that so much of his book has a North Atlantic focus. We are planning on hosting meetings with colleagues from Oceania, Bering Sea, and the Caribbean in the near future for some collective consideration of human island ecodynamics and Biocomplexity issues. Thanks to a great deal of hard work by a great many; the North Atlantic has certainly arrived on center stage.

New data sets: Now some of our major challenges are in managing and disseminating our data as much as sustaining field investigations. The 2008 meeting confirmed that many breakthroughs in the present century are as likely to come from the laboratory as the field, with impressive demonstrations of new analytic techniques (isotopic, microscopic, aDNA, and imaging). The sheer quantity of high quality comparably collected and recorded N Atlantic data of diverse sorts has also clearly passed the thresholds needed for a whole new set of multi-site and even multi-island syntheses. All this has been made possible by active fieldwork across the region and the interaction of laboratories, field schools, and field research projects has been one of the most notable successes of the overall NABO effort. The 2008 meeting also showcased the products of multiple long term multi-investigator projects, some of which have now run for a decade or more, and a recurring theme of our discussion was the impact and comparative value of such sustained efforts focussed upon a particular landscape/seascape. While there was good cause to look backwards with a sense of collective accomplishment, the meeting participants were also concerned to look ahead to address common problems.

Major Regional Problems

Current World Economy: The North Atlantic area is bordered by developed nations and highly integrated economies. These are now regrettably experiencing some of the drawbacks of interconnection but still sustaining impressive national commitment to cutting edge science, education, and local heritage development. Sustained high quality research that can tackle big questions needs sustained, predictable funding, but this is very difficult for single organisations (or even single countries) to furnish long term support for multi-investigator projects. Effective international collaboration pooling intellectual, logistic, and funding resources has been one way to tackle the limits of national support for sustained research. NABO has shown great strengths in such cost-effective collaborations and will do more in the future. Much discussion centred on making most effective use of collective resources, sharing best practice, using digital technology to save money, and generally avoiding duplication of effort in a context of widespread hard economic times. We clearly need to redouble efforts to combine the funding resources of multiple national initiatives and agencies, and there was a strong community support for more of the pooling of grant-getting efforts that has characterized NABO thus far. There was also widespread support for targeted efforts to aid Icelandic scholars and institutions particularly hard hit by their banking crisis, and since the September meeting several NABO projects have pooled resources to cover non-IKR expenses (like radiocarbon charges and travel costs) for Icelandic projects hit by currency collapse in exchange for help with IKR related expenses. There was strong support for similar creative collaborations to reduce the adverse impact of currency fluctuation and economic instability on North Atlantic science, and we welcome ideas for other ways to sustain science and researchers

through the next few years. *NABO researchers will continue to pool resources and offer mutual support in hard times as in good, and there was strong support for collective effort to alleviate impacts of the economic downturn on northern societies and rural communities.*

Wider Contributions: There was equally wide recognition that we need to be seen as contributing to the larger regional and global debates on globalization, rapid environmental change, community viability, and promoting adaptive resilience and sustainable resource use and that we need to continue to demonstrate the critical importance of the long term record for successful futures. NABO is already seen as a contributor to a range of global change initiatives, and there appears to be a growing international recognition that sustainable futures are built upon well understood human ecodynamics in the long term. Time depth is as critical for social science investigations as for climatology. The GECHS (*Global Environmental Change and Human Security*; <http://www.gechs.org>) programme based at University of Oslo has been a major decade-long effort to understand the way diverse social processes such as globalization, poverty, disease, and conflict, combine with global environmental change to affect human security. GECHS research situates environmental changes within the larger socioeconomic and political contexts that cause them, and which shape the capacity of communities to cope with and respond to change. NABO members have been active participants in the GECHS initiative, bringing a long term perspective to better understanding current and future change. In North America, NABO members have actively participated in National Science Foundation initiatives in *Human & Social Dimensions of Global Change* (HDS see http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=11678), the recent inter-agency *Social and Environmental Tipping Points* meeting hosted by the Arctic Consortium of the US (ARCUS), and related interdisciplinary collaborations that are explicitly seeking to integrate the long term paleo-record with forward planning. In May 2009 NABO was asked to help organize a working conference on Global Perspectives on Long Term Human Ecodynamics by the US National Science Foundation Office of Polar Programs. *The NABO community are ideally placed to further demonstrate the relevance of the past to present and future, and there was a strong consensus that we should seek to expand NABO contributions to global change research initiatives.*

Erosion & Rapid Environmental Change: Global sea level rise, local increases in frequency and severity of storms, rising summer temperatures in the arctic and sub-arctic, and other current and projected environmental changes all pose threats to archaeological and environmental data in our region. It is no exaggeration to state that in many parts of our study area (especially in Atlantic Scotland & South Greenland) the present generation will see loss of archaeological heritage unprecedented in the past 2,000 years. Several northern museum and heritage directors presented horrific accounts of rapid acceleration of site destruction, particularly in the coastal zone so heavily settled by the maritime adapted cultures we often study. Recent archaeological work in S Greenland has documented the loss of virtually all the summer-frozen midden deposits in the former Norse Eastern Settlement, with a drastic reduction in the quality of organic preservation observed at the same sites in the 1930's and 1980's. Where woollen cloth, feathers, hair (and probably recoverable aDNA) were regularly observed in older excavations, recent re-excavation has revealed only rapidly decaying animal bone and teeth. Wind erosion, gully formation, and storm surges pose equally intense threats in some areas as well. There was general agreement that better documentation of the extent of threat and projects incorporating some rescue component should be priorities, and that enlisting the help of the public (heritage groups, schools, visitors) in site monitoring and discovery should be an area for close cooperation between research projects, local institutions, and local residents. *The urgency & severity of the threat to the basic record is such that any long hiatus in field work due to economic cut backs will have massive adverse long term impacts on knowledge.*

Traditional Knowledge Loss & Community Impacts: Northern rural communities are now often hard hit by simultaneous rapid economic, environmental, and social change. These impacts come as the generation born in the first quarter of the 20th century is passing away or leaving local farms for assisted living elsewhere, and there is great danger of loss of traditional knowledge, especially the richly detailed, spatially referenced memory of local places and localized variability through time held in the minds of experienced farmers and fishers. Ethno-archaeological research in 2008 in the Mývatn area (led by Astrid Ogilvie, Ian Simpson, and Jennifer Brown) has underlined how much variability in resource use and overall adaptive strategy there has been on the farm-by-farm basis, and how important it is to gather and record these variations. Several scholars have noted that the dense and culturally meaningful network of place names in much of the Atlantic is being progressively forgotten or replaced with GPS coordinates, just as we are beginning to make fuller use of place names indicating past land use practices as well as settlement pattern. *Recording and conservation of traditional knowledge and its integration into international science are urgent priorities for North Atlantic research.*

More Effective Integration of Local Communities & Institutions with International Projects: NABO has long worked to connect international science to local communities, and to aid different island community organizations in establishing contact with each other. The *Heart of the Atlantic* project in the Faroes has been a leader in connecting education, heritage development and cultural/environmental tourism promotion in the Faroes with Shetland and Iceland. The emerging ESSENCE initiative in Scotland provides impressive potential for furthering integration of local, regional, and international levels of cooperation. Many NABO scholars are based in northern museums and educational institutions, and strong support was expressed for closer integration of research, education, and heritage work done by local institutions and projects based in southern centres. There remains a great deal of work to be done to further develop these connections among N Atlantic community groups, local museums, and international science, but there was general agreement that we were all proceeding from a well-established position of mutual respect built upon long histories of collaboration and that we needed to move towards more directly involving local residents and institutions in field and lab/classroom activities, and finding better ways to deliver products that will be of immediate use and value to these institutions. There was general interest in making use of digital technology to enlist the help of avocational archaeologists & local school groups, and to integrate and credit their discoveries more effectively. It was noted that many projects have recently had great results by handing out combinations of digital cameras (7 to 9 megapixel point and shoot cameras are now widely available and inexpensive) and hand held GPS. These simple digital tools in combination with deep local knowledge and a keen eye (often applied in the “off seasons” when southern based scholars are cooped up in distant lecture halls) have allowed local residents to be very effective contributors to our common store of knowledge—especially in a context of rapid environmental change and sudden site exposure. There was strong agreement that more such practical engagement of local talent and traditional knowledge provided a means for immediate empowerment and for the encouragement of younger local residents who may be inspired to take on university training and become field scientists themselves. The *Fornleifaskóli barnanna/Kid’s Archaeology Initiative* begun in Northern Iceland in 2006 (see below) may provide an example of the sort of practical help NABO scholars can provide to local communities wanting to become more actively involved in northern science. *Promoting structured, sustained, institutionally-grounded, mutually beneficial collaboration between local communities and international science should be a priority for North Atlantic projects.*

Sustained Longitudinal research & the research funding cycle: One area of general discussion was the experience gained by long-running projects and the theoretical, logistical, and educational benefits of sustained commitment to investigation of a particular landscape/seascape. All of us have long appreciated the importance of moving from single-site investigations to landscape- scaled

projects for basic pattern recognition and for the effective integration of different field sciences, and many at NABO 2008 had practical experience of managing such large scale projects during the past two decades. Several scholars commented upon the theoretical and practical advantages of following Carole Crumley's 1994 call for "longitudinal research strategies" focused upon long term change (in both human and natural systems) in a particular study area, as opposed to a focus upon a narrow time period pursued in a series of geographically distant spots. While temporal specialization is inevitable, the longitudinal strategy provides a useful framework for integrating a long environmental and cultural record, and generates no "post-interesting" sites or periods. Particular phases of human ecodynamics (colonization, abandonment, or accelerated impacts) are often best seen in the light of prior conditions and later outcomes, and there are sound theoretical reasons for the NABO community's interest in sites ranging from Mesolithic camps to WWII era fortifications within a common changing cultural landscape. Besides the clear practical logistic advantages to coming back to the same lodgings each season, the economic and social advantages for the local community of a predictable pattern of migration provides a firm basis for the sort of local-international connections we all want to build and strengthen. Several researchers noted the positive results of a sustained 'field station' situation for interdisciplinary collaboration; it is easier to leverage funds and rationalize logistics for many specialist studies if there is already some structure, gear, and local experience in place. Several members also noted that smaller amounts of annual funding spread over more seasons tended to produce better results than larger sums spent quickly on short but intense "mega-projects". This observation led to discussion of the problems associated with the normal research funding cycle (one to three years of funding support). We all noted the recurring pattern of wasting much time (and money) on inevitable first season cluelessness, better performance second year, and really getting going in year three (when the money runs out). Funding agencies understandably are torn between continuing support for demonstrably productive long running projects (often directed by more senior researchers) and providing start up support to promising new work (often proposed by promising younger scholars). No funding agency wants to see its scarce money tied up forever in a limited number of projects (however successful), and none want to promote fossilization of fieldwork within a narrow range of researchers. Productive discussion (involving both elder and younger NABO members) suggested strong support for the longitudinal program of sustained effort with solid integration with local communities, and some ideas for successfully integrating innovation, education, younger scholars, and a broad research community were proposed based on NABO field project experiences to date. The idea of multiple research teams (each potentially on a different spot on their respective national funding cycle loops) sharing common resources within a consortial *geographically based field research program* involving scholars at different stages of their careers and making use of the 'field station' logistic advantages seemed attractive to many. We would like to propose for wider community comment the idea that NABO more formally sponsor and promote long term research and education *field programs* in geographically defined regions of wide scholarly interest that could provide long term sustainability for a multitude of shorter term *projects* proposed and carried out by a wide range of teams specializing in different fields or in different periods. *We would initially propose some of the NABO IPY field project areas for consideration as long term NABO programs as part of the IPY heritage and would welcome suggestions for more potential program areas.*

Communication and Dissemination

A major theme of the NABO 2008 Bradford meeting was improvement and expansion of our efforts at communication and dissemination. At present NABO is an informal collective of like-minded researchers engaged in what amounts to a scholarly version of one of the traditional farmers/fishers cooperative organizations that have long flourished in the North Atlantic Region. The group

encompasses those working on palaeo-hunter gather communities of the arctic to World War II defensive positions. Themes such as adaptation and response to change (environmental and climatic) and sustainability strategies have provided complex research questions that have promoted the integration of researchers from different disciplines to supply answers. Such a diverse community has carried forward successful sustained collaborations in an informal way. This was seen at NABO 08 as being advantageous and there was a uniform feeling that the creation of a formal and structured Research Organisation or Society would be counter productive to the collaborative support system that the present informal structure promotes. However, there is a problem in promoting access and participation for scholars outside of the existing network and an ongoing problem of timely dissemination and communication of new results and possibilities for collaboration both within and outwith the existing NABO network. We were fortunate to have the publisher of the new on line *Journal of the North Atlantic* (JONA, <http://www.eaglehill.us/programs/journals/jona/journal-north-atlantic.shtml>) Joerg- Henner Lotze and our NABO webmaster Anthony Newton (www.nabohome.org) actively participating in the 2008 discussions at Bradford. Ideas were exchanged for improvement of dissemination and communication during the meeting centred on further development of both the NABO website and JONA.

NABO Website Expansion: The internet provides NABO as a research group numerous opportunities for research dissemination, information exchange and communication. There was wide appreciation of the work done by NABO webmaster Anthony Newton (Edinburgh) in upgrading the NABO website and strong support for a series of additional features (many of which have already become operational):

- Provide researchers with a ready point of connection to NABO and promote development of shared resources such as web based reference databases, identification manuals, image galleries and on line reference collections to enhance broad scale research and student training.
- Make available full data sets, site documents, and detailed discussion (above that possible by conventional publication of reports) to assist future research and enable researchers to better build on previous work and direct current and future research.
- Easy access to a common form of downloadable content (i.e. PDF format) for site, laboratory, and other reports that now tend to be inaccessible or widely dispersed. Make unpublished “grey literature” available, download ready, and web-searchable, and provide potential for referencing web-accessible materials in published works.
- Searchable (Google or similar) content to provide wide access and visibility of content for both researchers and their research, whilst maintaining individual identity for individuals, institutions and research projects.
- Map-based interface (Google Earth / Map –like) providing geographically referenced access to a wide range of data (PDF reports, photos, larger scale maps, basic site data, student projects, outreach materials etc.) from a single map pin. Provide software capability for user-upload of map-based content. Registered individuals within the NABO community will be able to upload and maintain their own data and materials, allowing flexible and instant exposure to the latest research findings.

- Create an interactive list of interested NABO researchers including academics, field practitioners, members of contract units, local and regional museums and heritage centres, research students, and interested members of the public working in the North Atlantic that identifies expertise and research interests. Such a communication network would provide the potential to develop discussion forums, support for grant and project applications as well as providing information dissemination and exchange ahead of publication. Such an internet facility would be a NABO research version of popular communication applications such as “Face-book”. Such a directory of researchers, students etc. in the North Atlantic would allow the realization of the following aspirations:
 - Matrix of interests and student MA, MSc, and PhD topics.
 - Email groups of people with similar interests.
 - Forum / networking capabilities for discussion, information exchange and conference organisation.
 - The creation of an informal forum with wide range of material, including outreach, picture galleries etc.

There was wide interest in all of these developments, and strong support for the development underway by the NABO web team. There are however, potential problems in keeping an internet based system running, that require consideration.

The first is one of curation, maintenance, cost and sustainability. This internet resource would need to keep up with changes in technology and need to cope with both archive material and new data that is constantly changing and developing our understanding. The second concerns academic property, there are issues surrounding both ownership and recognition. Would reports be recognised as being published or unpublished?

Dissemination: The Suggested Way Forward

There seem to be two solutions that could fulfil the above aspirations:

- The NABO web site: rapid, flexible, interactive, and relatively informal
- *The Journal of the North Atlantic (JONA)*; peer reviewed on line journal with extensive linking and digital resource capability. Authoritative, fully reviewed, and nearly as rapid venue for reaching a wide range of scholars.

The consensus of the NABO 08 meeting was that this was not an “either or” situation, but the two platforms were complementary and could be linked. Both the NABO website and JONA offer the possibility of holding grey literature such as Interim Reports (such as the *Data Structure Report* required by Historic Scotland for work on Scottish sites). These Interim Reports have become important statements on current research and contain important data sets and a common depository / archive (in parallel with the depository needs for individual projects and countries). Both are web searchable, and are already producing hits on Google and similar search engines (as an experiment try searching for “biperforated metapodial” on Google to see the results). Both allow for on line presentation of large numbers of large format digital photos, large tabular data sets, and links to other web resources.

JONA offers the ideal peer reviewed publication for the wide range of papers integrating many diverse disciplines with the archaeological record of the North Atlantic which characterises NABO research. As part of the well established *BioOne* network and with a large and distinguished board of editors, *JONA* has rapidly become an important publication venue since its initial volume in 2008. *JONA* offers the possibilities to publish specialist editions (these might be thematic or conference proceedings) as well as individually submitted papers of varied length. The digital format of *JONA* means that papers that miss deadlines do not have to affect contributions submitted

on time and can be inserted in to the published volume at a later date. JONA's review process has proven to be quite rapid, and a substantial number of papers are now appearing each month, with more (including papers presented at the Bradford NABO meeting) in the pipeline. A collection of papers on post-medieval archaeology in the North Atlantic is now in review, including work by many new investigators.

Areas for Action & Steps Taken Since Bradford (as of May 2009)

- **NABO Website Upgrade:** as agreed at the Bradford conference, a major effort has been made to extend the upgrade of the NABO website by Anthony Newton. The map based interface has advanced with a well-designed program now allowing for user input and cross referencing of both individual sites (single points) and larger project areas (boxed map areas) is about to go active after a period of testing and development. The website will develop into a more Web 2.0 site with NABO members adding and managing their own content. More use of Google earth/ map applications are planned, and the website has attracted extensive favourable comment and the pdf downloads have been heavily used by students and scholars in many parts of the world (U Alaska notably!). While upgrades continue, the NABO website has already had a major impact on disseminating our product and advertising our research cooperative globally.
- **JONA** has continued to flourish, attracting a growing number of papers, some from the highly successful Hvalsey Conference in Greenland (Orri Vesteinsson and Jette Arneborg organizers), a Bradford 08 group submission is being organized (please let us know if you would like to be included), and the *Post-Medieval North Atlantic* collection is progressing through peer review. Peer reviewed publications range in topic from Basque-Icelandic dictionaries to the archaeology and paleoecology of the 14th c trading site at Gásir in Eyjafjord, with much between. The review system has proven quick and smooth, and JONA is well on its way to becoming one of the major regional journals and raising the visibility of our research area dramatically. JONA is now in its second annual volume and has already attracted wide international interest.
- **Field Schools:** Despite the economic crisis, the NABO graduate level field school in Vatnsfjord in Iceland has been able to continue into 2009, and has just received funding from Icelandic science sources. In addition, a new field school (aimed at undergraduates) is being developed as collaboration between University of Bradford Department of Archaeological Sciences and Orkney College on Rousay in Orkney. The Bradford/Orkney College/ NABO field school is starting its first season in the summer of 2009 and will be run as a collaboration aimed at both providing a wide range of field experiences for the participating undergraduates and aid Orkney in documenting and conserving sites recently exposed by marine erosion. These two field schools will help to ensure the continuation and expansion of high quality educational opportunities in our region.
- **Fornleifaskóli barnanna/Kid's Archaeology Initiative** Beginning in 2007 NABO has cooperated with the Þingeyjarsveit Archaeological Association, Fornleifaskóli barnanna (Kid's Archaeology) project, Mývatn Science Station, Archaeological Institute Iceland, Stefansson Arctic Institute, U Akureyri, Husavík Whaling Museum, Husavík Museum, and Laugar School to involve rural Icelandic school children in field and classroom work designed to stimulate interest in heritage and careers in field science. This has been a very successful collaboration with the local school system and local cultural institutions to make use of the long running NABO field projects in the Mývatn/ Þingeyjarsveit area and we plan to expand these efforts in summer 2009 with the addition of another Icelandic school system

to the network. A combined classroom and hands on follow up visit in October 2008 by Sophia Perdikaris (NABO Education group) and Thora Pétursdóttir (Arch. Inst. Icel.) proved extremely successful and has formed the basis for a successful Icelandic funding application by the museums and association. NABO is distributing 7 colour GPS receivers and digital cameras to the initiative to allow students to collaborate with elders in locating place names, recording associated information, and providing a GPS and photo record. These data will be stored in the Husavík and Akureyri Museums and made available through the NABO website. In 2009 the program will expand to south Greenland, and Thora will travel to work with the local school in the Vatnahverfi.

- **Islands of Change Project:** A new NABO educational project directed by Sophia Perdikaris has just announced for full funding support for 2010-13 from the US National Science Foundation at just over \$1 million. This *Islands of Change* project is directed by Sophia Perdikaris and will connect a research experience for undergraduates (REU) program with local Kid's Archaeology initiatives in Barbuda (West Indies), Manhattan, and Iceland. Support from this large scale REU education grant in 2010-13 will allow continuity for many of the efforts of the current NABO IPY while providing an opportunity for the transfer of lessons learned in the N Atlantic to other world areas.
- **Museums, Education, & Fieldwork Integration:** NABO will participate in the October 2009 ICOM/CECA "Museums & Education in a Global Context" meeting in Reykjavik, presenting on the Kid's Archaeology initiative and the Islands of Change Project and gaining expert advice in effective integration of our efforts with the larger museums and education community.
- **STERNA & NABO Bird Osteology Project:** In April 2009 Andy Dugmore hosted in Edinburgh a meeting of zooarchaeologists, ornithologists, museum curators, and our digital delivery experts to launch a cooperation between NABO and the EU STERNA project (Semantic Web –based Thematic European Reference Network Application) aimed at contributing archaeological distribution data to the STERNA effort (see <http://www.sterna-net.eu/>) and getting some guidance on our intended NABO North Atlantic Bird Osteology manual on line (a planned companion to the FISHBONE osteology guide already posted on the NABO website). We will have a separate posting on the NABO website on this new collaboration (some of the data generously made available by the workshop participants is already on the website), and our objective is to have a working model of both archaeological bird bone database and the digital osteology manual available for wide review at the next ICAZ (Intl. Comm. For Archaeozoology) meeting in Paris 2010 kindly being organized by Dr. Dale Serjeantson with active help from Dr. Aevan Petersen (Icelandic Natural History Inst) and Seth Brewington (CUNY).