LOOKING BACK . . . AND LOOKING FORWARD

In 2018, CfAS took great strides. Two CfAS synthesis grants were awarded and each grant recipient project team held their first working group session. A board of directors was formed, directors appointed, and committees established. CfAS co-presidents Altschul and Kintigh gave four presentations at professional meetings in North America, Europe, and Africa and hosted receptions at the SAA annual meeting in Washington, D.C. and the EAA annual meeting in Barcelona. The CfAS session at the EAA meetings included a joint presentation by the SAA and EAA presidents on the importance of archaeological synthesis to the discipline. In the last year, CfAS went from a handful of supporters to 33 Partners and 125 Associates.

We will build on our momentum in 2019. Discussions are underway with partners to sponsor synthetic workshops on themes as different as human migrations and first encounters. CfAS continues discussions with universities to host the International Center for Archaeological Synthesis that will provide logistical and administrative support to CfAS as well as leadership and direction to the organization.

CfAS events will occur throughout the year in a variety of venues. CfAS will sponsor a forum on archaeological synthesis and its utility for advancing social science at the SAA annual meeting in Albuquerque on Friday afternoon, April 12th, followed by a CfAS reception on Saturday, April 13th from 7–9 PM at the Hotel Andaluz. CfAS representatives will be at other meetings, including the EAA annual meeting in Bern, Switzerland in September. It promises to be an exciting year, full of opportunities to exchange information, collaborate with other scholars, and engage in interesting and exciting research. We can hardly wait!
THE HARD WORK OF SYNTHESIS

In each newsletter, we plan to highlight a different aspect of collaborative synthetic research. For this issue, co-President, Keith Kintigh and his long-time colleague, Margaret Nelson, discuss data integration.

Challenges of Integrating Archaeological Data and Knowledge

Keith Kintigh & Margaret Nelson

From the earliest discussion of an archaeological synthesis center in 2004, it has been clear that data integration is one of the key challenges we face in accomplishing synthesis (Kintigh 2006, Kintigh et al. 2014, Altschul et al. 2017). Thinking more about this, what has been glossed as the process of archaeological “data integration” may really entail two qualitatively different activities: (1) integrating data from projects with fundamentally similar material records that can be directly compared and synthesized; and (2) integrating knowledge about the socio-ecological dynamics of fundamentally different cultural contexts. CfAS synthesis projects will, in many cases, face both of these challenges.

The first is what is usually thought of as data integration—the integration of systematically-collected data from different projects that have engaged similar material records, but that have recorded the data using different protocols (e.g., using different names or codes to denote the same thing or using different measurement units). The goal of that data integration is to combine different datasets into a single database in which the observations are sufficiently comparable that they may be analyzed together. Starting in the late 1990’s a group of Southwest US archaeologists at Arizona State University led by Margaret Nelson faced this problem as we worked to compile data from multiple projects within each of the subregions whose socioecological trajectories we were attempting to compare (Hohokam, Mimbres, Salinas, Zacatecas, and Zuni). Indeed, this data integration challenge led directly to the development of tDAR (the Digital Archaeological Record) whose data integration tools the focus squarely on this problem (Kintigh et al. 2018).

The second problem, we might call knowledge integration, requires systematically integrating and synthesizing what we have learned from fundamentally disparate cultural contexts. This is certainly related to the problems often faced in transdisciplinary and convergence research, though it seems to pose some additional problems. The CfAS-funded ArchaeoEcology Working Group is looking deeply into biodiversity, ecological dependencies, and resilience using data from the American Southwest, the Pacific Northwest, the South Pacific, the North Atlantic, northern Europe, and Western Australia. As you might imagine given this diversity, in their initial meeting they were already beginning to cope with this problem.
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— Keith Kintigh and Margaret Nelson

We can also look at another, now-completed project that integrated knowledge across cases using a model similar to that employed by the CfAS working groups. In it, the ASU Southwest US archaeologists referred to above worked with a group from the North Atlantic Biocultural Alliance (NABO) led by Tom McGovern. In this effort, we worked to compare the long term social-environmental trajectories of several North Atlantic cases (Iceland, Greenland, Faroe Islands) to our Southwest US cases.

This started in 2009 with a NABO-focused meeting in Maine in 2009 to which Payson Sheets, Jago Cooper, Peggy Nelson, Keith Kintigh and a few other outsiders to North Atlantic research were invited to provide some broader perspectives. For five years starting in 2010, the Southwest and NABO groups met annually for a few days: at the Amerind Foundation in Arizona; at the University of Edinburgh; in San Diego; in Akureyri, Iceland; and at the Santa Fe Institute in New Mexico. As in the CfAS model, there was no new data collection and the effort was comparatively inexpensive—the only significant expenses were paying for the once-a-year meetings. (In that case funded by the NSF Office of Polar Programs.)

It took a lot of talking in these meetings to reach a point from which we could make real progress. The participants all brought expert knowledge to the table and needed to be confident that they, and more so the importance and the integrity of their particular cases, were respected by the others. The knowledge integration process demanded that we not cherry-pick “facts” from the different cases, but instead involved floating trial, cross-case comparisons that could be critically examined—and quite possibly rejected—by the experts who had in-depth knowledge of the relevant contexts. The patience required by this process was rewarded by the occasional insight that was universally seen to be an aha! moment that strongly propelled the synthesis forward.

It is worth noting that each of the cases involved in the larger Southwest US/North Atlantic synthesis had already faced data integration problems of the first sort—integrating data from multiple projects within the many subregions included. In the US cases, the direct integration was accomplished primarily by some hard-working and talented graduate students who, in some
cases, used the tDAR data integration tools. In the North Atlantic case, the direct data integration problems were solved, to a large extent, through the longstanding standardization of data collection protocols agreed upon by the NABO members.

This collaboration has led to several publications authored by participants of both groups (e.g., Nelson et al. 2015; Hegmon et al. 2014; Hegmon et al. 2018; Spielmann et al. 2018) and has also inspired numerous additional publications by other sets of participants.

Much of Kintigh’s research effort over the last 20 years has been focused on attacking the data integration problems of the first sort (fundamentally comparable cases) with our ASU Southwest working group and developing tools to address that problem in tDAR, and on the problems of the second sort addressed by the Southwest/North Atlantic collaboration. Those group efforts have strongly impressed on us the difficulty and the importance of addressing both kinds of data integration processes. The CfAS working groups can serve as a laboratory for mutually reinforcing efforts directed to substantive synthesis and to learning about how to most effectively do both the data integration and the knowledge integration for the benefit of social science and society.

THE HARD WORK OF CFAS

The collaborative synthetic model that we envision is structured around two organizations. The first is an organization of Partners and Associates named the Coalition for Archaeological Synthesis or CfAS that develops synthetic themes, prepares Requests for Proposals (RFPs) and Requests for Information (RFIs) for CfAS projects, and reviews proposals. A second organization, termed the International Center for Archaeological Synthesis of ICAS, is home to the Executive Director, staff, and institutional support that implement CfAS programs. Both CfAS and ICAS are currently operated as programs of the SRI Foundation, with the ultimate goal to have them become separate independent entities. CfAS will most likely be established as an independent 501(c)(3) (nonprofit) organization, whereas ICAS will become a formal center at a university. We first intend to establish ICAS. To that end, we have requested proposals from several universities in the United States. We have established a subcommittee of the board of directors to review these proposals and negotiate with one or more university applicants. The boards of both CfAS and the SRI Foundation
will make the final decision. Our goal is to select the home institution for ICAS by the end of 2019. At that time, we will then begin to resolve the final status of CfAS.

As we establish the organizational structure of CfAS/ICAS, we continue with funding and developing collaborative synthetic projects. The projects awarded in 2018 are in full swing and plan to complete their work in 2020. In the meantime, CfAS is working with the SAA and the EAA to jointly sponsor one or more CfAS projects on human migration (see below). In January 2019, Jeff Altschul represented CfAS at the workshop *Intersecting Worlds. The Interplay of Cultures and Technology*, hosted at the Lorentz Center in Leiden, Netherlands. Building from the foundation developed by the ERC-sponsored *Nexus 1492 Project*, the workshop explored facets of European colonialism, particularly the response of indigenous communities to first encounters and the transformation of societies along trajectories that continue to today. One outcome of the workshop was the pledge by CfAS to explore future collaborative synthetic projects on these themes.

- Co-Presidents, Jeff Altschul and Keith Kintigh

**JOINT SAA-EAA CFAS PROJECT ON HUMAN MIGRATION**

CfAS is requesting information from scholars and researchers in archaeology and allied disciplines interested in designing and possibly participating in one or more collaborative synthetic projects on human migration. SAA and EAA will jointly sponsor these projects in order to develop long-term, comparative and synthetic understandings of the factors stimulating human migration, the conditions and processes implicated in the success of the incorporation of immigrant groups at their destination, and how these new understandings might inform contemporary public policy. The projects will be designed by a diverse group of about 15 scholars who have demonstrated experience relevant to migration studies and who have and are willing to share data or expertise pertinent to the topic. The outcome of the design phase will be one or more proposals to be submitted to funding agencies. This Request for Information (RFI) is for the purpose of identifying participants in a 3- or 4-day workshop to design the synthetic projects to be held in the fall of 2019; implementing the projects is contingent on securing additional funding. If interested, please complete the information requested by the RFI by following this link or visiting the CfAS webpage at [www.archsynth.org](http://www.archsynth.org). Completed RFIs must be submitted electronically to Terry Klein (tklein@srifoundation.org) by June 15, 2019, 5 PM MST (GMT-7). Questions can be submitted via email to Mr. Klein at the email address above.

**CFAS EVENTS AT THE 84TH ANNUAL MEETING OF THE SAA IN ALBUQUERQUE**

CfAS is sponsoring the forum “From ‘Saving the Past for the Future’ to ‘Saving the Future with the Past’: Building Arguments for Contemporary Relevance” at the 84th annual meeting of the SAA in Albuquerque, New Mexico on Friday afternoon, April 12, 2019. The forum will bring together archaeologists from academia, CRM, museums, and NGOs on how archaeological results
can be used to influence public perception and behavior on issues facing modern society. Panelists Gary Feinman, Michael Heilen, Margaret Nelson, Marcy Rockman, Michael Smith, and Stefani Crabtree (if available) will provide short statements on their perspectives on the forum’s theme which will then be used as a catalyst for an open discussion with the audience. Saturday night, Friday, April 13th, CfAS will host a reception for all CfAS Partners and Associates at the Hotel Andaluz. In addition to hors d’oeuvres and a cash bar, the reception will include a short program with information on current CfAS programs and a discussion of future objectives. Located at 125 Second Street, NW, the Hotel Andaluz is a short distance from the conference venue at the Albuquerque Convention Center. The reception will be held from 7:00 PM to 9:00 PM in the hotel’s Ibiza Patio on the Mezzanine Level. Please RSVP to Terry Klein at tklein@srifoundation.org no later than May 25th.

FROM THE NEW YORK TIMES
On February 8, 2019, the New York Times reported the food web modeling of the Martu Aboriginal foragers by Stefani Crabtree and her colleagues. Based on a recent article in *Human Ecology*, the Times article focuses on how research into traditional land use can help restore the Australian desert. The work on the Martu led Crabtree to develop the ArchaeoEcology Project, one of the two CfAS grant recipients, which has the objective of generalizing network-based approaches beyond the Australian case to others in different environmental and cultural settings around the world.

GET BY WITH A LITTLE HELP FROM YOUR FRIENDS
CfAS needs your help! Although we’ve done our best to raise CfAS’ profile by giving presentations in meetings and publishing articles, we keep encountering archaeologists who say, “what a great idea. If I had only known about CfAS, I would have joined long ago.” So do us and your colleagues a favor. Send them the newsletter and encourage them to join. Associates are free and Partner organizations pay a small annual membership fee. We have a lot going on and we don’t want anyone to miss out on any research opportunities or results.
Fostering Synthesis in Archaeology to Advance Science and Benefit Society

Officers and Contact Information

Jeffrey H. Altschul, Co-President, jhaltschul@canelogroup.net
Keith W. Kintigh, Co-President, kintigh@asu.edu
Ron Boytner, Treasurer
Sarah Miller, Secretary

Terry Klein, Director, NCAS, tklein@srifoundation.org

www.archsynth.org

333 Rio Rancho Drive, Suite 103, Rio Rancho, New Mexico 87124
505-892-5587