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Crossing Boundaries and Academic Fair Trade

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The political configuration of the modern world molds human activities in practically every sphere of endeavor, certainly including the practice of archaeology. The dynamics of modern national boundaries impede archaeological research and communication in numerous ways, and create multiple inequities in the opportunities available to archaeologists situated in different places. In the spirit of attempting to overcome or at least ameliorate these impediments and inequities, the editors of this volume proposed a chapter on "erasing boundaries." We have adjusted this title a bit for two reasons. First, the boundaries are so intimately involved in the practice of archaeology—and not always in entirely negative ways—that they require particular attention. And second, as archaeologists, we obviously cannot really erase all the boundaries anyway. We can, however, reduce the damage boundaries do to the archaeological endeavor by making them easier to cross.

Boundaries and Archaeology

Boundaries—in all their forms—and the difficulty of crossing them, impede the practice of archaeology most fundamentally by restricting communication. It is a commonplace that the free and open communication of information and ideas fosters progress in science, and boundaries represent impediments to this flow of information and ideas. Both "science" and "progress" are, of course, concepts regarded with deep suspicion by some archaeologists—the discipline does include the most remarkable diversity of activities, aims, and outlooks. But it is difficult to argue that there is *any* kind of academic or scholarly activity (no matter how scientific, unscientific, or anti-scientific) that thrives on limitations to the free and open flow of information and ideas. And lest this be branded an ethnocentric "Western" notion, note that it is espoused by the Premier of the State Council of the People's Republic of China: "Science has no boundaries. ... Just as collisions generate sparks, exchange and communication enrich imagination and creativity" (Wen 2008). The intellectual interaction that creates communities of scholars is the lifeblood of any academic discipline. This intellectual interaction takes place through various channels. There is the actual face-to-face interaction that occurs in conferences, collaborative research, and other sorts of scholarly visits. As essential as such face-to-face interaction is to the creation and maintenance of a scholarly community, much larger quantities of information and ideas flow to much larger audiences through publication. Across practically the entire range of channels, national boundaries represent pinch points in the flow of information and ideas. Publications are often not very well distributed within the boundaries of the country where they are published, but they always have a much harder time crossing those boundaries. Many contexts for meeting and interacting with colleagues are national, and not international—even when foreign archaeologists attend. We emphasize national boundaries here, but other kinds create problems for archaeology as well. Some national boundaries are also linguistic boundaries, and thus create especially high hurdles to communication. The archaeological regions of specialization into which we divide the world may or may not correspond to national boundaries, but they also create their own communities of scholars, whose boundaries are difficult to cross.

National boundaries work in some obvious ways, as well as in some subtle and subconscious but extremely powerful ways, to create national archaeological communities. Archaeologists in one nation are subject to a national set of political, social, economic, cultural, educational, and administrative conditions in which archaeology is carried out. Such conditions vary quite strongly between countries, and give national archaeological communities special concerns often not shared with their neighbors across the border. The effect of strong national archaeological communities with well-developed national channels of communication can be to reduce rather than increase communication across national boundaries.

The archaeologists of practically all nations regularly reinforce the boundaries between national archaeological communities in the curricula designed to train the archaeologists of the future. The information many students of archaeology find in the classroom often emphasizes, sometimes overwhelmingly, the archaeological past of their own nation at the expense of even immediate neighbors, trimming off the parts of the past that lie on the wrong side of modern national boundaries. The phenomena archaeologists study very frequently—if not always—transcend modern national boundaries since past social, cultural, economic, and/or political entities and their interactions often had spatial distributions that differ sharply from the patterns of today's political organization. It is easy to detect, for example, ways in which the patterns of communication and interaction among archaeologists studying the ancient Maya are bent by the modern boundaries that divide Mexico, Guatemala, Belize, Honduras, and El Salvador.

Wide-ranging comparative research is made especially challenging by the difficulties in access to information created by boundaries. These arise in part directly from the economic and political foibles of modern national boundaries, but finally an even more severe obstacle to meaningful comparative research is the difficulty of entering and comprehending a series of different national or regional specialist conversations about the practice of archaeology that have differing impacts on visions of what happened in the past in different places.

The diversity of theoretical perspectives and orientations contained within the discipline of archaeology creates yet another layer of complications (Pauketat and Meskell this volume). With so much variety, it may not even be possible to imagine a single community of archaeological scholars exchanging ideas and information. At the very least there would be a number of fissures in such a community, produced by the selectivity we all must employ in deciding just what, in that flux of information and ideas, to pay attention to. Because of the wide variety of circumstances in which archaeology is practiced in different countries, and because of purely random factors as well, it is inevitable that some theoretical orientations will develop strongly in some national archaeological communities while others are more robustly developed elsewhere. This can lead to a national or ethnic identification of entire theoretical perspectives (often in the context of arguing against them) that makes such theoretical fissures in networks of communication align even more strongly and damagingly with national boundaries.

Clearly, however, the diversity of theoretical perspectives could instead lead to patterns of strong interaction between archaeologists across the globe that cross over national and academic boundaries.

Boundaries, Archaeology, and National Identities

The national character of archaeological communities is strongly reinforced where archaeology plays an important role in constructing national identity. There is a large literature on this subject, concentrating primarily on its political and ethical dimensions. As archaeologists, we are urged to live up to our responsibilities in aiding and supporting the use of archaeology in establishing cultural identity when the national or other entities involved are regarded as laudable, but to resist being co-opted into support of entities whose aims are politically or ethically dubious (or worse—sometimes much worse). Apart from the immense complexity of the ethical issues that may be raised, a great deal of the funding that supports archaeology in much of the world is motivated by concerns of heritage, identity, and cultural pride. And this puts archaeologists in the same position as Willie Sutton, who (probably apocryphally) answered the question of why he robbed banks by saying "Because that's where the money is." For archaeology, the money is very often from the coffers of nation-states, and the result is that the archaeological enterprise is often, first and foremost, beholden to national heritage, national identity, and national cultural pride.

The form that archaeological orthodoxy in the service of national identity takes is, of course, shaped differently under varying political circumstances and histories. The contexts are almost unimaginably varied, ranging from support of massed national political, economic, or military power (as in the construction of an Aryan-centric national prehistory in Hitler's Germany) to resistance against it (as connected to Native American land reclamation efforts). In Mexico, national identity has been built on indigenous cultural achievements in opposition to Spanish colonial heritage in a postcolonial environment that began long before the term "postcolonial" became fashionable. A general amalgam of indigenous cultural heritage has been contrasted to Spanish colonial heritage and emphasized, often at the expense of the impressive indigenous cultural diversity of the territory that is now Mexico. In Peru and Bolivia, positive attention to indigenous heritage in constructing national identity has gone in waves, and has come under attack at times as a cynical manipulation of indigenous heritage to help sustain a system of European oppression of indigenous peoples beyond the end of the colonial era. Situating Lima and La Paz as political successors to Cuzco or Wari and Tiwanaku, respectively, gives archaeology special prominence, but it is hardly an unalloyed benefit to efforts to understand the precolonial (but often indigenously imperialist) past of the central Andes. National identity in the United States has traditionally been focused far more heavily on European colonial heritage. The current politics of archaeology have more to do with appreciating and promoting the rights of indigenous and other groups disadvantaged under the dominant political, economic, and cultural regime (Franklin and Paynter, this volume; Sebastian, this volume; Wilcox, this volume; Silliman and Ferguson, this volume). Conservative governments in both Argentina and Chile have projected their modern national boundary farther into the past than the existence of either nation. Both have used archaeological and other anthropological research on Mapuche origins (conveniently organized nationally) to counter land claims on the grounds that the Mapuche are an ethnic group of Chile and thus not entitled to land in Argentina or vice versa. In China, a major current in archaeological research (almost entirely state-sponsored) is tracing back to its roots the trajectory of what can be identified as culturally Chinese, an effort with direct implications for relationships between the dominant Han Chinese and China's officially designated cultural minorities.

In all its variety, though, as has often been noted, the use of archaeology in the construction of narratives of national identity is a highly exclusionary activity (e.g., Kojan and Angelo 2005:394)—one not likely to encourage entirely open flows of information and ideas across national boundaries (or for that matter, within them either) as some readings of the past become politically incorrect. The importance of archaeology in this arena, then, can add to the difficulty of crossing boundaries. Indeed, it can create one of the most difficult challenges archaeologists must face in attempting to cross boundaries.

Boundaries, Archaeology, and Inequalities

For obvious reasons, the archaeological communities of large, rich, and powerful nations are in an advantageous position. Such nations have many more institutions that help support archaeology, especially universities, and substantial numbers of these institutions have considerable resources with which to support what they do. Their governments have more resources available to support fields like archaeology, and their powerful economies provide other sources of support as well. The archaeological communities that exist within the boundaries of such nations can be quite large, making it easier to sustain not only the scholarly and professional organizations that facilitate interaction but also the commercial and noncommercial entities whose publications provide the major channel for the flow of information and ideas. The quantity of information and ideas flowing through these channels in a large archaeological community is much greater than in a small one, and access to it is easier. Archaeologists fortunate enough to be members of such national communities are truly swimming in the deep end of the pool. They have opportunities not available to archaeologists whose national archaeological communities are much smaller and less well endowed. Such inequalities of access to ideas, information, and resources can feed upon themselves in what it was once fashionable to call a "deviation-amplifying system" that not only perpetuates but intensifies the inequalities.

This would be true of the internal dynamics of archaeological communities (or "invisible colleges," the term Díaz-Andreu [2007] has adopted for them) if they existed on entirely different planets with no possibility of communication between them. And, although we do not often pause to notice, the vast majority of practicing archaeologists in practically all countries are not much engaged in interaction with colleagues across national boundaries. They are specialists in the archaeology and heritage management of some part of their own country; the colleagues with whom they interact face-to-face are their own compatriots; the meetings they attend are in their own nations (or even their own regions); and the literature they read is published and circulates primarily in their own countries. The limitations this situation imposes on the invisible colleges of the large, rich, and powerful nations are easier to overlook than the much more severe impediments it presents to archaeology in small nations with more restricted resources.

It is a relatively small proportion of archaeologists who are well connected to genuinely international flows of information and ideas. These are mostly archaeologists who in one way or another are participating members in two or more national invisible colleges. If they come from large, rich, and powerful nations, they may carry out field research in other countries. Their ability to do this likely springs from access to public or private resources targeted toward scholarly research (as contrasted with heritage concerns), which are useable internationally. If they come from nations with more limited archaeological opportunities, they are more likely to be studying or participating in conferences outside their own countries. While we take it for granted that all such activities that can foster the international flow of information and ideas deserve encouragement, we must also recognize the asymmetrical relationships symbolized and reinforced by these different roles occupied predominantly by the boundary-crossers from "central" and "peripheral" countries.

Broad Trends in the Americas (and Elsewhere)

The concerns of the Society for American Archaeology are primarily focused in the Americas, and thoughts of boundary crossing in the Americas quickly turn to bilateral relationships between North America and Latin America. Three general trends in Latin American archaeology during the period since the mid-1990s are of particular relevance here. First, although it varies from country to country, there is a broad increase in the presence of North American and European archaeological research teams in Latin America. Second, the same period has seen substantial increases in the number of Latin American university graduates engaged in master's, doctoral, and postdoctoral studies in North America and Europe. Third, resources for training in archaeology have increased in Latin American universities. This has occurred not only at the undergraduate level, with the founding of new programs in archaeology, but also at the postgraduate level, with a substantial increase in the range of opportunities for master's and doctoral studies in archaeology. This somewhat more recent trend is clearly related to, and made possible by, the return of Latin American students who have completed postgraduate degrees abroad. All of these trends vary substantially from country to country as a consequence of their different economic circumstances and their varied historical trajectories and academic traditions. Archaeologists from different Latin American nations have been trained very differently (some, for example, under the special educational rules of military governments), and they work under very different circumstances (including dangerous ones such as near zones of *guerrilla* or drug traffic). Nonetheless, the three interrelated trends are seen broadly across Latin America, and have spawned a new set of invisible colleges with varying academic impacts.

The increase in foreign participation in archaeological research has changed the face of archaeology at the regional and local level to varying degrees and in different ways in different countries. The level of participation of Latin American archaeological professionals in research alongside their colleagues from other countries has also soared in many nations, partly owing to legal requirements for national counterparts to foreign researchers, but also as the natural outcome of the increased numbers of Latin American archaeologists carrying out postgraduate study abroad. Success at integrating international research teams in real collaboration has varied substantially. Genuine international collaboration requires moving well beyond simply simultaneous presence in the field of archaeologists from different countries, and many perfectly successful efforts at international cooperation in carrying out archaeological fieldwork have fallen far short of the intellectual engagement that is the hallmark of real collaboration (Silliman and Ferguson, this volume). Such intellectual engagement on an equal footing is the essence of the "academic fair trade" of our title (an expression we borrow from Claudia Briones who used it in a lecture at the Centre of Latin American Studies at the University of Cambridge in January, 2008). Legal regulations, bilateral international cooperation agreements, and other top-down institutional arrangements, however well-intentioned, do not guarantee that genuine collaboration will take place. Informal, personal considerations are of much greater importance to the success of a truly collaborative effort, and the development of international research teams from the bottom up (growing out of collegial and personal relationships among the people involved) is more likely to be fully successful. Latin American archaeologists who have realized postgraduate study abroad are particularly favorably positioned to facilitate such efforts, as are foreign archaeologists who have invested time not just in carrying out fieldwork but also in really joining the national archaeological invisible college where they do their research. We wrote this paragraph specifically with our experiences in Latin America in mind, but every single word applies equally well to relationships between national and foreign archaeologists in a number of other parts of the world. East and Southeast Asia come especially quickly to mind.

Linguistic boundaries continue to be especially difficult to cross and throw especially challenging impediments in the path toward academic fair trade. As a consequence of forces much broader than just in archaeology, English has obviously become, for the moment, a global *lingua franca* in many different arenas, from the internet to air traffic control to diplomacy to banking to chemistry. Just how permanent this situation is, only time will tell. Given the realities of the world at the beginning of the twenty-first century, however, no one should pretend surprise that archaeologists who are native speakers of English publish less in other languages apart from their own than do native speakers of Spanish, Portuguese, French, German, Italian, Dutch, Norwegian, Danish, etc. It is easy to predict that archaeologists native to large and highly developed linguistic invisible colleges will publish primarily (or even almost exclusively) in that language, while archaeologists whose native linguistic invisible colleges are smaller and lack publication outlets of such wide dissemination will show a greater inclination to publish in languages foreign to them. For some, at least, practicality trumps ideals, and "the need to communicate is probably more important than the need to perpetuate a victim mentality," as Chirikure (2008:182) has put it. This does not, however, make the practical or symbolic impact of the pattern any less unfortunate (Bernbeck 2008; Holtorf 2008).

Even if English is, in one sense or another, the "language of science," much important archaeological information is available only in other languages, and many very interesting archaeological conversations take place in other languages. Archaeologists limited to the information available in just one language or able to participate only in the conversations that take place in a single language are just that: limited, in terms of access to the flow of information and ideas. This issue has often reared its head in the bilateral relationship between an invisible college composed largely of North Americans who carry out research in Latin America (or several of them actually, since there is not as much communication as one might wish between North American archaeologists whose work lies in different parts of Latin America) and an invisible college of Latin American archaeologists (or again, perhaps several regionally distinct ones). All North American archaeologists who carry out research in Latin America need the information and ideas available in the archaeological literature published in the regions where they work. This is not just a question of courtesy to colleagues in the nations where foreigners do research (although there *is* that); it is a practical necessity. Some North American archaeologists recognize this; many appear not to (despite having been preached at about it for many years). The archaeologists of many parts of Latin America are also harmed if they lack access to the substantial archaeological literature on their regions published in English in

North America. (Something similar might be said about Europe, but the quantity of material published on Latin American archaeology in Europe is far smaller, so let's keep things simpler for the moment by focusing on North and Latin America.) The development of two invisible colleges in different languages concerning the archaeology of various parts of Latin America interferes with the flow of information and ideas and impedes the development of academic fair trade.

Again, we have written specifically in terms of the relationship between North American and Latin American archaeologists, but much the same could be said about many other parts of the world. Hansen (2008) has made a similar point about the archaeology of Egypt. And again, East Asia comes quickly to mind as an example of dual invisible colleges operating in different languages. As foreign participation in the archaeology of China, for example, has increased over the past decade or two, a newly vigorous and extremely stimulating conversation about China's past has developed in English. This conversation is, in many respects, starkly different from the one that has long existed in Chinese. The two are by no means oblivious of each other, but information and ideas do not flow very readily from one to the other. There is almost no flow at all of ideas or information from either of these two conversations about China to any of the various invisible colleges built around the archaeology of, say, the central Andes. (We will return later to the special opportunities and challenges of global comparative research.)

Language boundaries are especially vexing in the broader panorama of theoretical discussions (in contrast to regionally based ones). Here as well the second broad trend in Latin American archaeology referred to above has had an impact. The return to their countries of origin of Latin American students who have completed postgraduate degrees (or briefer periods of specialized training) abroad has expanded the participation of Latin American archaeologists in theoretical debates of varied character—be they processual, postprocessual, or processual-plus (*sensu* Hegmon 2003). The series of meetings on *Teoría Arqueológica en América del Sur* that have taken place in different countries since 1998 provides tangible evidence of this. Latin American archaeologists are much more involved in these more global archaeological invisible colleges of varied theoretical stripes than those of any other part of the world outside Europe, North America, and Australia. A different, and perhaps preferable, way to express this observation is that what many of us think of as global theoretical debate in archaeology is another invisible college, largely anglophone but with a freshly vigorous and expanding (although by no means entirely new) sector in Spanish in Latin America. A strong current in the Latin American theoretical literature expresses frustration at a sense of marginalization in that largely anglophone debate, and at the same time seeks theoretical approaches that maintain a distinctly Latin American identity. An idea often expressed in Chinese archaeology grows from similar roots: the notion that Western models may have utility in understanding China's past, but that finally models with a distinctively Chinese character are required.

Ideas do flow from debates in English into the Latin American theoretical discussion in Spanish, not because articles are much translated into Spanish (they are not), but because participants in the Latin American discussion bring them there, primarily from English. (Even French social philosophers arrive in the Latin American debates more strongly from the anglophone archaeological literature than directly from France or the archaeological literature in French, which has not paid them nearly as much attention as archaeologists writing in English and Spanish have.) Stimulation from the Latin American debates has not flowed as effectively into the conversation in English, even though some of its participants have showed admirable willingness to publish in English. The bulk of the attention North American archaeologists give to the archaeological literature in Spanish goes to publications rich in data about their regions of specialty rather than to theoretical writing. This shows clearly in the pattern of sales of archaeology publications from Latin America distributed by the University of Pittsburgh: abstractly theoretical works from Latin America do not sell nearly as well as site reports.

As if there were not already enough vexatious complexity to this issue, theoretical debate, unlike regional studies, is (or at least should be) linguistically multilateral. The information flow issue in, say, Peruvian archaeology has a strongly bilateral character dominated by relationships between the Peruvian invisible college and a very largely North American one. Thinking about it tends to concentrate quickly on the Spanish-English/Peru-North America axis, relegating other nationalities and Portuguese, French, German, and Japanese to the sidelines. This is a dangerous oversimplification, but its practitioners can usually get away with it because the number of players relegated to the sidelines is relatively small. Even this excuse disappears when we consider what should be much broader theoretical debates, not tied to the archaeology of any one region, within Latin America or beyond. However effectively, symmetrically, or bidirectionally the English-Spanish language boundary is crossed in theoretical debate among Latin American and English-speaking archaeologists, this will not automatically enable its ideas to flow readily to archaeologists (of whatever nationality or native language) specializing in China, Russia, Egypt, or France.

The trend of vigorous university development in Latin America is attributable to varied factors, including economic growth, increased need for more highly educated professionals in many fields, and the return of democratic governments to some countries where they had been absent. In many countries anthropology and archaeology programs have proliferated and/or expanded. The larger dynamic of university-level education in which they exist varies greatly from country to country, not without its impact on the conditions in which archaeologists work. Recent UNESCO (2008) data indicate that only 31 percent of young people across Latin America advance to university-level studies, but the figure varies from 64 percent in Argentina to 47 percent in Chile to 26 percent in Mexico and 25 percent in Brazil. This proportion is increasing almost everywhere at a substantial rate of growth, although perhaps in patterns that will only accentuate the differences between countries in access to higher education: growth is 15 percent in Argentina, 12 percent in Uruguay, 11 percent in Brazil, 9 percent in Chile, and 8 percent in Mexico. The differences in the proportion of entering students who graduate with degrees are dramatic, for example, 74 percent in Chile vs. 21 percent in Argentina.

SAA annual meetings show the impact of all these various trends. At the 2006 (Puerto Rico) and 2007 (Austin) meetings some 35 percent of symposia, poster sessions, and forums were on specifically Latin American subjects and about 38 percent involved Latin America in some way—not very different from the figures for North American subjects. Although in absolute terms the number of Latin Americans participating in the annual meeting is not large, the increase in recent years has been conspicuous. Attendance by non-Latin Americans at archaeological meetings in Latin America has also increased. Beyond the Americas, East Asian archaeology and archaeologists have been considerably more visible at recent SAA meetings than they were earlier. The Society for East Asian Archaeology is an organization of primarily Western origin, but its 2008 meeting in Beijing shattered previous attendance records. And broadly international organizations like the World

Archaeological Congress continue to grow, although sometimes more focused on the politics of archaeology than on understanding the human past. Does this mean that crossing boundaries is becoming much easier and more common? The answer to this question is complicated. From a nationalist perspective it is easy to brand many of these trends as nothing more than another manifestation of North American academic imperialism, but this view is simplistic. Underlying economic issues are important. The application of neo-liberal economic policies across Latin America during the 1990s, together with increasing numbers of university graduates, made possible the participation of much larger numbers of Latin American archaeologists in the SAA meetings. Their numbers dropped off after the economic crisis of 2001–2002, which was felt in much of Latin America. This could repeat itself in more exaggerated fashion with the much more globally felt impact of the financial crash of 2008, which is playing itself out as we write.

Crossing Boundaries and Academic Fair Trade in the Twenty-first Century

We cannot conclude this essay with a grand overarching solution to the difficulties of crossing boundaries in archaeology, but our hope is to do more than simply rail against them. In practical terms, our situation is that of a boy with his finger in the dike, but in reverse. We aim, not to stop the leaks that allow information and ideas to flow across boundaries, but to increase them. Our concluding thoughts, then, should be taken as suggestions for poking holes in the dikes. We cannot dismantle the dikes entirely; it is not clear that truly erasing boundaries would make the world a better place, even if we could. Fortunately, the dikes do not need to be entirely removed. Quite a satisfying flood can be produced simply by poking holes wherever and whenever the opportunity presents itself. At least five particular opportunities for poking holes occur to us.

1. Curriculum Design

The curricula that introduce students to archaeology are often narrowly focused and reinforce the artificial limits of national, regional, and linguistic boundaries. It will often be natural for studies of the past to emphasize regions closer to home over those much farther away, and deep knowledge of one or more regions of specialty is essential for archaeological research. Some students, however, are intensively schooled in the archaeology of their own nations with very little attention given even to those parts of cultures that extend across national boundaries into neighboring countries. Archaeological curricula that are more global in scope are often carved up into archaeological regions that are presented in such a way as to suggest that the study of one has little real relevance to the study of another. Linguistic boundaries are more complicated to deal with for students, who may or may not yet have much facility with a language other than their own. Students who are taught in English, though, are especially at risk of developing the attitude that English gives them access to everything important in archaeology (as well as its corollary, that publishing in English is to communicate to all the world's archaeologists). Every time an archaeologist steps into a classroom is an opportunity to poke a hole in a dike, for the next generation at least.

2. Crossing Boundaries Physically

Archaeologists who actually take passport in hand and cross national boundaries physically obviously play pivotal roles. This is true whether they go to participate in meetings, for scholarly visits of moderate length, to study, to teach, or to carry out research. Scholarly visits of a few months to a year have been very helpful during the past decade or two at beginning to poke holes in the dikes between China and North America or Europe. As noted above, radically expanded opportunities in recent years for Latin American archaeologists to pursue postgraduate study abroad have also poked many holes in the dikes—not only the dikes between the students' own countries and North America or Europe but between countries within Latin America as well. It is fervently to be hoped that opportunities for postgraduate training within Latin America will expand, as they seem vigorously to be doing now in at least some countries, in part owing to the efforts of archaeologists there who have postgraduate degrees that they could not have obtained at home at the time they studied. The aim, however, should not be postgraduate programs so that no archaeologists have to go abroad to study. This would simply plug up some of the most promising holes already poked in the dike, to the particular detriment of national invisible colleges dependent on only a few universities (or even on only a single one) for domestic archaeological training.

International research projects often miss excellent opportunities when their leaders cross boundaries only in the physical sense. Those who travel for such purposes may have regrettably little contact with their colleagues in the universities, museums, and other institutions of the countries where they carry out research. Sometimes requirements for collaboration are treated simply as bureaucratic obstacles to be gotten over as expeditiously as possible by getting some national archaeologist's name on the project. Better opportunities for postgraduate training for the students of many countries are fundamental to the establishment of equitable and genuine collaboration in such research, but so is real effort on the part of both foreign and national archaeologists. At their best, international research projects can open doors to real participation in different national invisible colleges by participants on all sides, but this does not automatically happen just because international projects exist.

Physically crossing boundaries, of course, is particularly expensive, and thus especially sensitive to economic trends. With recent economic development in the European Union and the direction of resources toward academia, along with vigorous economic growth in several parts of Latin America, the flow of archaeologists between Europe and Latin America has enlarged substantially. A small but significant number of Latin American undergraduate and graduate students have begun to study in other Latin American countries. This increasingly multilateral dynamic helps to diffuse the bilaterally asymmetrical character of the previously dominant scholarly exchanges between North and Latin America. Some of the international flow of students as well as senior scholars, of course, becomes permanent, and such expatriate scholars are especially well positioned to poke holes in the dikes between their native and adopted national invisible colleges. This has been particularly visible in the case of Chinese archaeologists in the West during the past decade. The international flow of scholars is difficult to quantify, but perhaps the experience of the University of Pittsburgh can be illustrative. During the past 15 years, 40 students specializing in Latin American archaeology have received Ph.D.s from the University of Pittsburgh. Of these 40, 19 are of U.S. or Canadian nationality; 20 are from Latin America. Most now work in universities, museums, or institutes in their native countries, but four of the Latin Americans are in permanent positions in North American universities, while two of the North Americans have made permanent moves in the opposite direction. Although archaeologists cannot tame the cycles of national and global economies that cause the levels of resources available to archaeology to vary, they do have great impact on how strongly the available resources are directed toward poking holes in dikes by physically crossing boundaries.

3. Inter-Institutional Collaboration

Inter-institutional collaborations can provide both frameworks and resources that facilitate the crossing of boundaries. The emergence of the European Union has led to the development of cooperative graduate programs involving universities in different countries. Students are permitted or required to take courses at different universities, and fellowship opportunities for students from the developing world have increased. Such collaboration between universities is rare in the Americas. There are no international educational entities to facilitate it, and within nations, the urges toward competition between universities can be stronger than those toward collaboration. We could think, for example, of the number of professionals and students interested in the dynamics of Inka expansion and how their horizons could be expanded and the quality of their work enhanced if even four or five universities could cooperate in a joint research and training effort. A slightly different approach is represented by academic networks created by formal agreements between institutions in Argentina, Brazil, Chile, Colombia, Uruguay, and some other Latin American nations. These provide resources for workshops that enhance interaction between already-existing research teams working on similar issues in complementary ways. They also facilitate the sharing of expensive equipment and laboratory facilities, as in a proposed joint international laboratory for archaeological genetics that could process samples from different Latin America countries (Zeder et al., this volume). These networks are still in their infancy and have yet to fully demonstrate their ability to produce results, but they certainly have the potential to poke holes in dikes. Perhaps even more important, they foster complex multilateral relationships that promise to contribute greatly to academic fair trade.

4. Publications, Languages, and Distribution

Publications have been and continue to be the major avenue of information flow both within and across boundaries. We have complained for decades about their expense, but they are much more cost effective than physically crossing boundaries. Publications do not automatically cross language boundaries, though, since they cannot all be in all languages. Article-length publications can appear with multilingual abstracts at little additional cost (as they do in the SAA's journals). Summaries or translations of articles from elsewhere are published by some journals or as volumes of collected papers. Commercial publishers produce translated editions of a small number of archaeological books, although the selection is erratic. For example, Spanish translations of "handbooks" or other synthetic publications on Latin American archaeology are not available, and North American textbooks seem substantially less represented in the Spanish-language editions available in Latin America than European ones. Publications of primary interest to regional specialists can be published in the language of the region, even if produced by foreign researchers (as with many publications from the Centre d'Études Mexicaines et Centraméricaines or the Institut Français d'Études Andines). Publications of importance both regionally and internationally can be produced in fully bilingual editions (as with the volumes copublished by the University of Pittsburgh and various institutions in Latin America). None of these represents a comprehensive solution to crossing language boundaries, but each pokes one more little hole in a dike somewhere. The costs of these options vary substantially, but the limiting factor often is the priority given by an archaeological author to crossing the language boundary. English-speaking archaeologists whose research areas are in Latin America have an especially poor record of publishing in Spanish, although there are numerous venues in which they might seek publication of their work.

Distribution of publications is also often highly constrained by national boundaries, and the difficulty of acquiring international publications is a time-honored excuse used by archaeologists of all nations for not knowing or using what they contain. Commercial publication of books and journals in archaeology is concentrated in North America and Europe; they are available for purchase, but prices are sometimes exorbitant. Institutionally published books and journals are often more economical, but they may be difficult or impossible to order (they are sometimes impossible to obtain at the institution where they were published, even though several boxes full must be stashed under a staircase somewhere). Archaeologists can at least try to direct the work they produce toward venues where it is both readily available and reasonably priced. And it is not beyond the capacity of institutions or departments run by archaeologists to make their publications available for purchase. Cooperation between institutions can enlarge these holes in the dikes.

5. New Information Technology

The information technology exists to alleviate many of the difficulties associated with traditional publications, as well as to help us cross boundaries in other ways. In some ways, the technology has far outstripped our abilities to figure out how to put it to effective use, let alone institute the necessary changes in social and economic organization. The costs of paper, ink, and mailing can easily be eliminated from the publication process by electronic dissemination, but the biggest costs have always been editorial—the whole set of tasks involved in turning a pile of submitted manuscripts of varying quality into a smaller number of peer-reviewed, professionally produced, readily accessible books or journal articles. If there are no books or journals on paper to sell, then alternative sources of income must be sought. Large commercial publishers have complex systems for charging for access to books and journals on-line; the smaller-scale publication programs of institutions and academic societies are at a substantial disadvantage here, and have a lot of catching up to do. Some institutions are able to cover editorial costs without sales and make their publications openly available free. In some cases these are institutions whose paper publications have been notoriously difficult to obtain, and one has to wonder about the permanent availability of publications they provide on-line. Open-access on-line journals are still few in archaeology and must face the same issues of institutional permanence as well as compete with the established reputations for quality built up over time by traditional journals.

On-line access has also changed the structure of information inequalities in some unexpected ways. Latin American scholars, for example, have traditionally had much more limited access than those of Europe or North America to the global scholarly literature in their fields. International books and journals can be painfully slow to arrive; moments of institutional, political, or economic crisis interrupt the flow and create permanent gaps in libraries' collections, gaps often filled by professors' own libraries. At least some well-financed major universities in Latin America have moved aggressively to take advantage of advances in information technology and cooperation with libraries elsewhere to substantially narrow the gap between their faculties' access to information and that of university faculties in North America and Europe. At the same time, the gap between scholars at major universities and less well-financed ones in terms of information access has widened (within every country, and this is true within Europe and North America as well). This information access gap between major and minor institutions globally threatens to become wider than the information access gap between academically "central" and "peripheral" countries, if in fact this is not already the case. This is one way in which the impact of national boundaries may be diminishing, but it hardly seems cause for celebration. (We can now *all* have even more dramatic inequalities of information access right within our own countries.) The rising tide of technology is lifting all boats, but some much more than others. Thus some boundaries become easier to cross; others, more difficult.

The digital world also affects the substance of publishing in little-noticed ways. As archaeological publishing has shifted more strongly toward journals and collected volumes of papers, concentrated more tightly in the hands of a smaller number of commercial publishers, our scholarly product has become more strongly and rigidly packaged into articles of a few thousand words. This happens at the expense of books—books that provide either lengthy and reflective treatments of particular subjects or reports of primary research in the field. A diminishing quantity of such books puts us at risk of de-emphasizing the large and integrative ideas of our discipline at the same time as we lose its fundamental data base. The shift away from book-length publications is commonly attributed to the length of time and amount of money required to produce a book, but, thanks to current information technology, it has never been quicker, easier, or more economical to produce a book, or simpler to make it available for sale worldwide. New information technology perhaps offers better ways to present and preserve our basic data than in traditional site reports, but we are still in the process of figuring out just how. On-line archaeological databases include an amazing spectrum of information, from continental-scale sets of projectile points, to the complete inventories of artifacts from a single site, to reference collections of phytoliths or pollen, to the collections catalogs of museums. These are vital research and teaching resources, usually freely available, aimed at everyone from elementary school children to advanced researchers. Not surprisingly, their forms of organization and the nature of the information included vary substantially, interfering with their collective utility for any one purpose. It is tempting to gather some key players around a table and try to organize all this chaos (e.g., Kintigh 2006), but we should not expect effective solutions to emerge from committees; they will have to evolve. Whatever form they take, it will certainly have an impact on crossing boundaries and academic fair trade.

In conclusion, information technology leads us to a final broad thought about crossing boundaries and academic fair trade—this one more fully optimistic. Email and other very common internet tools have completely transformed the dynamics of working in collaborative research teams. They certainly do not erase the boundaries of nations, languages, regional specializations, or other invisible colleges. They do, however, make it far easier than ever before for individuals personally equipped with the necessary linguistic and knowledge skills to cross all these kinds of boundaries. The possibilities for forming collaborative research teams that cross all such boundaries have increased exponentially, and those research teams can engage in deeper and more intensive collaboration than ever before. We are particularly optimistic about the vigorous development of collaborative programs of comparative archaeological research that transcend regional specializations because this context provides powerful incentives to poke holes in dikes between all kinds of invisible colleges: regionally specialized, national, linguistic, methodological, theoretical, and all the rest. The strongly multilateral character that relationships in such research teams can take contributes greatly to academic fair trade because it is a potent antidote to the asymmetries of many traditional axes of bilateral relationships in archaeology—particularly those between national and foreign invisible colleges focused on the archaeology of a single region.

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