Sensory Ecology

Mapping Sound in Archaeological Contexts

Though most anthropologists recognize the importance of hearing to human survival and evolution, archaeologists have only recently begun to incorporate acoustic data into interpretations of prehistoric life. Margaret Bruchez (Journal of Anthropological Archaeology 26 [2007]) explores the use of sensitive audio-recording instruments archaeological sites to gauge what can be heard in which locations, and she advocates mapping sound properties in Mesoamerican underground recesses. Caves and caverns have complex internal topographies that distort noises. Modern Mesoamericans, for example, describe sounds produced by wildlife, wind, and running water as "otherworldly" when experienced in caves.

Acoustic analyses interpret sensory climates in ritual venues. In Mesoamerica, where caves and tunnels are common, aural characteristics appear to have been a selection criterion for ceremonial places. Some underground locations transform noises generated by natural forces into sounds that seem like groans, whispers, or voices, attributed by local people to ancestors or deities. Other places reverberate human-produced sounds such as drumming and chanting, as at Las Ruinas Cave near Oaxaca, Mexico, where stalactites and stalagmites evidence percussion wear. Digital detection is especially important in a third type of environment, characterized by natural infrasounds—those below 10 Hz, undetectable to the human ear but which can trigger dramatic physiological responses. Subterranean recesses where infrasounds occur may have been used to induce trance, an aspect of ritual life not perceptible by traditional archaeological means. Digital recordings can be collected across archaeological sites and their quality and intensity mapped and correlated with artifact and rupestral art distributions for a more complete interpretation of sensory experience.

-R. G. Carper

Science and Technology Studies

"Democratic" Bio-identities in the Making

New genetic technologies and concepts that were once specialized scientific matters have entered public awareness. As a result, social identities have been changing. Jennifer Reardon (BioSocieties 2 [2007]) reflects on these forms of governance by examining the Haplotype Map Project (HapMap), an international effort initiated in 2002 to understand

human genetic variation by focusing exclusively on populations with African, Asian, and European ancestry. HapMap was framed as a democratic genomic exercise that strongly emphasized "community engagement" by integrating communities into decision making, informed consent, and blood sample collection. This ethical awareness was an effort to differentiate HapMap from the Human Genome Diversity Project and to avoid the criticisms of indigenous groups for treating their communities as objects instead of as collectivities with concerns about genetic research. To this end, HapMap explicitly did not include indigenous populations on its agenda.

However, avoiding "well-defined" minority groups did not prevent researchers from facing political concerns. For Reardon, this was a symptom of the lack of reflection about what constitutes a sample or population and the ways people in different countries think about nationhood and geography when studying human genetic differences. As a powerful form of technoscience that aggregates and differentiates peoples in new ways, genomic research runs the risk of reinforcing dangerous biologized ideas of race, nation, purity, or geographic determinism. Thus, the "democratic turn" in genomic international research projects is not enough to guarantee better forms of governance and must include an integrated examination of how people are constituted through the discourses and technical practices in life sciences.

—C. A. Barragán

Religious/Political Anthropology— Material Culture

Goods Boy/Buycotts and Their Dilemmas: Conflicting Political and Religious Identities

Many inhabitants of countries with a large Muslim majority feel tension between the pulls of Islam and modern citizenship. Johan Fischer (Ethos 72 [2007]) investigates the formation of modern Malay Muslim identity by focusing on the practice of U.S.-good boycotts and its opposite, "buycotting"-positive discriminatory shopping of locally manufactured products. While Imams encourage boycotts as a way to resist Westernization, Malaysian government not only rejects calls to boycott but also considers them unpatriotic. Fischer's quantitative analysis of the consumption behavior of 241 middle-class Malay Muslim households is completed by an in-depth ethnographic study of 10 cases that focus on the moral dilemmas boy/buycotts raise regarding dress, household decoration, and film taste.

Within these families, Fischer distin-

guishes two modern Islamic lifestyles: puristic and pragmatic. While consumption of U.S. products is believed to finance war on terror against Islam, both groups are, at the same time, well aware of Malaysia's dependency on U.S. investment for future economic development. These Malays are particularly careful not to display un-Islamic goods and behaviors in public.

On the basis of his comparison, Fischer concludes that both Malay groups show parallel patterns of goods consumption. Puristics and pragmatics alike display different Islamic lifestyles only in public yet remain very similar at home, suggesting that boy/buycotts have become political rhetoric.

—D. Lorenzo

Physical Anthropology

Biological Adaptations and Their Influence on Health during Economic Modernization

Early human evolution was limited to tropical and subtropical Africa, but, around 1.8 million years ago, hominids began to disperse into temperate latitudes. When modern humans emerged, they moved rapidly into northern regions and became the first humans to permanently settle high-latitude environments. This global settlement of subarctic and arctic regions represented an adaptive shift that included cultural, behavioral, and biological dimensions. Human survival in these regions was assisted by two types of biological adaptations: those that promote body heat conservation and those that increase heat production.

Snodgrass et al. (American Journal of Human Biology [2007]) point out that although these morphological and physiological adaptations have been recognized for decades, researchers have paid little attention to how they affect an individual's health when faced with economic modernization and changes in lifestyle. Past research has shown that, regardless of environment, native Siberians have elevated basal metabolic rates (BMRs), or rates of heat production, when compared with those of lower-latitude groups. Snodgrass et al. have identified a negative correlation between BMR and LDL cholesterol in native Siberians. This suggests that high metabolic turnover has a protective effect in regard to harmful fats in the blood. These differences were likely caused by the interaction between physiological and genetic differences and unique economic, political, and social histories. This biological adaptation to the cold and high-latitude environments influences the health transition that northern populations undergo with economic development. Specifically, these results highlight the importance of knowing how different populations will be influenced by modernization. By integrating an evolutionary approach into health research among migrating populations, researchers can identify potential health-related issues.

-R. Schacht

Political Anthropology

Identity Crises in Sudan

"Race" can be confounded with other markers of identity such as language, religion, and social status. In *African Affairs* (107 [2008]), Heather Sharkey highlights the fluidity of Sudanese identities, especially the ambiguous nature of race. After Sudan's independence from British colonization in 1956, lighterskinned Arab policy makers (concentrated in the Nile Valley) emphasized a need for cultural unity among the disparate groups within the nation and enacted a process of Arabization, or *ta'rib*.

Although touted as a means to unify the nation, Arabization has played a major role in the escalation of violence and inequality. Darfur is the latest in a series of conflicts and civil wars that erupted in Southern Sudan between 1955 and 1972 and again after 1983. The violence is often fueled by the resentment Southern Sudanese feel at the attempt to eradicate the ethnic, linguistic, and cultural diversity of the region and replace it with a language, religion, and culture supported by an ideology of Arab supremacy.

This belief in the superiority of Arab-ness is gaining momentum among the lighterskinned and politically powerful Northern Sudanese and has taken on an increasingly racial or racist tone in Darfur. A race-based perspective on Arab identity creates a paradox for the darker-skinned people of Southern Sudan, who are encouraged to become "Arab" through language, religion, and culture but are then often denied that very identity because of their skin color and history as slaves. Can people become Arab? This question is at the heart of why the Arabic language-but not Arab identity and the privileges that come with it-continues to spread in the Sudan.

-K. L. Rauch

Medical Anthropology

Nip-Tuck for the Nation

As a medical practice, aesthetic or cosmetic surgery raises ontological questions about its ultimate purpose: is it a "correction" of the body, a healing of the mind, or an intricate blend of both? Alexander Edmonds (*Journal of the Royal Anthropological Institute* 13 [2007]) examines the paradoxical populari-

zation of cosmetic surgery in Brazil, the "empire of the scalpel," and its incorporation as a free service into a still-precarious national health system. In public hospitals and private clinics located in Rio de Janeiro, the chart of procedures that plastic surgeons perform mainly on female bodies—is extensive, from breast enlargement/reduction, liposuction, rhinoplasty, and face lift to correction of "racial features." Patients and media describe plastic surgeons as sculptors of the body, modelers of nature. Such depictions contrast with the surgeons' awareness of acting also as healers of the patient's self-esteem. In close relation with a national beauty myth and crossing social classes, the patient's selfperception emerges as the medical condition to be corrected by cosmetic surgery.

Edmonds points out the presence of a neoliberal libidinal economy, "where anxieties surrounding new markets of work and sex mingle with fantasies of social mobility, glamour, and modernity" (p. 366), as the force behind the democratization and spread of free and low-cost cosmetic surgery among working classes in Brazil. Being poor and being perceived as ugly are seen as signs of a lack of social success in the individual experience of national class struggle and the myth of a racial democracy. Market rationality frames cosmetic surgery as the most effective therapy for patient-citizens and the anxieties coming from their experience of modernity and late capitalism.

—C. A. Barragán

Research Summarized

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