

Geomatics

Predicting Maroon Refuge Locations

For runaway slaves, survival often depended on the ability to become “invisible.” The efficacy of this tactic has made Maroons, or runaway slaves of the seventeenth and eighteenth centuries, archaeologically elusive, too. As a result, although resistance to slavery is a conspicuous part of Caribbean cultural heritage, details of Maroons’ lives remain poorly understood. For example, the constant threat of recapture and castigation on the island of St. Croix led them to hide in remote, defensible spots that were hard to see. Few people occupied these camps at a time, and those who did took care to leave little evidence of their presence. Holly Norton and Christopher Espenshade (*Journal of Caribbean Archaeology* 7 [2007]) recognize that these characteristics make Maroon refuges exceedingly difficult to detect by standard archaeological survey methods. They propose a valuable tool that could allow archaeologists to overcome this obstacle: using Geographic Information Systems (GIS) analyses to predict likely site locations.

Norton and Espenshade acknowledge that modeling site distributions based on subjective criteria such as inaccessibility and concealment can be problematic. Slope, relief, and distance relative to well-defined points on the landscape, however, are easily quantified and provide a measure of the difficulty of arriving at a place. Viewshed analyses map lines of sight from fixed vantages and, by determining which places were *not* visible from European slave hunters’ lookouts, can reveal likely Maroon refuge locations. Combining these and other data in a GIS format, they create a testable model of site placement on St. Croix. Finding and excavating Maroon camps will give us a glimpse of the lifeways of a people concealed better and longer, perhaps, than they ever intended.

—R. G. Carper

Urban Studies, Visual Anthropology

New Visions in Urban Management

The rise of closed-circuit television surveillance has provoked debates about topics ranging from privacy rights to social profiling. Anthony Minnaar’s (*Surveillance & Society* 4 [2007]) study in South Africa discusses how television surveillance projects, operating primarily in central business districts and tourist areas, are redefining urban management in the name of crime prevention and urban renewal. An expensive technology, closed-circuit television often requires subsidies from private businesses that, in turn, promote the potential of surveillance

technology as a new urban management tool. Realizing the commercial potential of this type of urban management, a new company has formed to manage and market such projects.

The vision of these projects is total urban management, in which television will be used to prevent crime, control traffic, and monitor public works. Complementing this total package are quicker, real-time tools such as wireless technology that allows operators to contact police during a crime and send photos directly to cell phones. In this new mode of urban management, operators will be able to report broken water mains along with criminal activity.

In their ongoing efforts to expand the surveillance footprint, companies are offering a vision of the city in which crime and the built environment can both be controlled by mechanical eyes. Lost in this form of urban management, however, is the recognition of the social conditions that lead to criminal activity. Proponents claim that these technologies are lowering crime rates, but Minnaar cautions that crime may simply be moving into areas with less surveillance.

—M. Stewart

Paleoanthropology

Assessing the Adaptive Significance of Neanderthal Morphology

Our fascination with Neanderthals is evident from the frequent appearance of studies about them in both the popular and academic press. One recent article tests an adaptive explanation of the well-known differences in leg length between Neanderthals and humans. Allen’s rule, a long-established zoological principle, states that warm-blooded organisms living at higher latitudes possess shorter limbs than organisms living closer to the equator. Following this rule, many researchers have suggested that the shorter limbs of Neanderthals were adaptations to a harsh European climate, whereas human limb proportions reflect our tropical roots. Michael Tilkens and colleagues (*Journal of Human Evolution* 53 [2007]) test Allen’s rule as it applies to human limb proportions in order to assess the adaptive significance of Neanderthal morphology.

It has long been assumed that Neanderthal bodies were adapted for minimizing surface area exposed to cold air and, therefore, the energy required to stay warm. Tilkens et al. tested this assumption by measuring the upper and lower leg portions of 20 human subjects and then measuring their resting metabolic rate in a cold room. They found that individuals with long legs exerted more energy to stay warm than those with shorter

legs. Further, the length of the upper leg was a more reliable predictor of resting metabolic rate than lower leg length. This result is surprising, given that comparisons of Neanderthal and human limb proportions usually attribute the shorter limbs of Neanderthals to a shortening of the lower leg. This suggests that Neanderthals may have achieved shorter overall length by shortening the lower leg, even though it may have made bipedal movement less efficient.

—S. Etting

Experimental Archaeology

Experimental Use of a Replica Irish Halberd

The adage that appearances can be deceiving holds true in the case of the Irish halberd, a pointed-tipped ax used in Europe during the Early Bronze Age. Although the halberd may have been awkward to hold and problems with the hafting indicate that it was not used as a weapon, an experiment conducted by Ronan O'Flaherty (*Antiquity* 81 [2007]) with a replicated halberd shows its potential to inflict deadly harm. The replication was made by creating virtually identical blades, according to dimensions of an actual halberd of arsenical copper and oak. To see whether the replica could inflict deadly blows without breaking, O'Flaherty used warm and unskinned sheep heads, provided by a slaughterhouse, as stand-ins for human counterparts. In deciding how best to swing the halberd, he considered factors such as the comfort of the tool in the hand, the wear patterns on artifacts, and the depictions of it in rock art. The results of 20 tests showed that the replica halberd could handle impact well and deliver piercing blows. It would have required skill to use and been best suited for single combat. O'Flaherty posits that the owner of a halberd would have used it conservatively, striking only when sure of contact with the intended target, because hitting a hard object could have damaged the weapon. He suggests that as the norms of combat and weapons changed, the halberd either disappeared entirely or became a symbolic object.

—N. Reich

Human Rights

Global Politics Against Impunity

The internationalization of local union struggles is emerging as a promising strategy to contest global labor exploitation. Lesley Gill (*Critique of Anthropology* 27 [2007]) re-

flects on the experience of Coca-Cola Company workers in Colombia to show that neoliberal restructuring and state violence have created a dangerous situation for SINALTRAINAL (the National Food and Beverage Workers' Union) members and that workers have turned to international human rights organizations for help.

During the 1990s, Coca-Cola implemented aggressive labor restructuring in Colombia, including the shutdown of production lines, massive firing, forced retirement, and outsourced hiring. At the same time, the workers' movement was systematically persecuted, allegedly by state forces and paramilitary groups, who engaged in forced exile, kidnapping, the targeting of vulnerable family members, and killing. These attacks cut deeply into the social fabric surrounding union members and their families, weakened the union itself, and created an overwhelming sense of state impunity.

SINALTRAINAL began calling its fight against Coca-Cola a human rights issue in a lawsuit presented in U.S. federal court in 2001. With this legal action came the international support of trade unions, student organizations, lawyers, intellectuals, and solidarity groups, who launched media corporate campaigns against the company, called a ban on exclusivity contracts on university campuses, and held demonstrations. Though Gill recognizes the effectiveness of these efforts, she also calls for union leaders to reflect on the consequences of focusing only on international networks, since such alliances can be ephemeral. She stresses the importance of mobilizing union resources at the local level in Colombia rather than risking an imbalance that could compromise the effectiveness of previous achievements in local labor conditions.

—C. A. Barragán

Evolutionary Biology

Preference for Novelty

The evolution of female choice for male traits still raises concerns in sexual selection theory. If females find the same male trait attractive and choose males in terms of it, then males will become more and more alike. Therefore, genetic variation in males will decrease, and, as a result, so will the benefits of female choice. This dynamic notwithstanding, in some animals females have been found to exhibit preference not for a specific male trait but for rare characteristics in males. What mechanism maintains this preference? If fe-

males preferred the same rare quality, it would then become more common in each generation as the males with that characteristic left more offspring; desirable rare male traits would not remain rare because their offspring would actually become common.

Hanna Kokko and colleagues (*Proceedings of the Royal Society B* 274 [2007]) find it surprising that although the "rare male advantage" has been featured in several early reviews of mate choice evolution, it has yet to be formally modeled. After exploring the evolution of female mating preferences through statistical modeling, Kokko et al. offer an explanation for this phenomenon: a preference for rarity can be maintained if there are enough females who find the rare trait attractive to ensure that the offspring exhibiting this trait are desirable but not so many that they become common. This finding helps explain not only the evolution of female mate choice but also its impact on maintaining variation in male traits.

—R. Schacht

Research Summarized

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Kokko, H., M. D. Jennions, and A. Houde. 2007. Evolution of frequency-dependent mate choice: Keeping up with fashion trends. *Proceedings of the Royal Society B* 274:1317–24.

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Norton, Holly K., and Christopher T. Espenshade. 2007. The challenge in locating Maroon refuge sites at Maroon Ridge, St. Croix. *Journal of Caribbean Archaeology* 7: 1–17.

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Tilkens, Michael J., Cara Wall-Scheffler, Timothy D. Weaver, and Karen Steudel-Numbers. 2007. The effects of body proportions on thermoregulation: An experimental assessment of Allen's rule. *Journal of Human Evolution* 53:286–91.