

Dietler and I. Herbich

or the Aka, who number about 500,000 people living in villages built along mountain ridges in northern Thailand, life teems with feasts.

Families hold feasts on occasions as diverse as the naming of babies, the completion of new houses, the honoring of women entering menopause, and the presentation of offerings to deceased ancestors. Villagewide feasts take place to celebrate special holy days, strengthen community ties, and seek divine protection from natural calamities. Villages also hold joint feasts, often to encourage marriages between the offspring of politically powerful individuals.

Aka funerals evoke elaborate communal banquets that run from a few days to several weeks. Those attending a funeral feast partake of alcoholic beverages and special delicacies, including meat from chickens, goats, and water buffalo raised solely to be eaten at such events.

Despite their consuming passions, the Aka hardly qualify as affluent party animals or jaded gluttons. Villagers eke out a living by growing and selling rice, ginger, and a few other crops, as well as by gathering edible wild plants.

Feasts act as an all-purpose ritual oil that lubricates Aka society's interconnected parts, from struggling nuclear families to powerful coalitions of village chiefs, according to archaeologist Michael Clarke of Simon Fraser Universi-

ty in Burnaby, British Columbia. Clarke has worked among the Aka for the past 2 years.

Not everyone shares the Aka's extreme fondness for feasting, but many populations throughout the world consume food and drink in public ceremonies and have done so for centuries. Some archaeologists now argue that a more concerted effort to pick out the material leftovers of feasting will yield a heaping portion of insights into prehistoric and modern societies.

"Feasts may serve as valuable keys to understanding how ancient rituals and social life produced changes in political structures," contends archaeologist Michael Dietler of the University of Chicago. "Feasts have long been a fundamental theater of human relations."

Dietler and Brian Hayden, also of Simon Fraser, organized a session at the March meeting of the Society for American Archaeology in Seattle to highlight some of the latest research on feasts past and present.

ecisions to hold feasts depend largely on the existence of a food surplus, Hayden says. Groups that generally operate without copious food reserves, such as the !Kung in southern Africa and other modern hunter-gatherers, rarely hold feasts.

Hunter-gatherers also tend to abide by an ethic of regular food sharing among all group members, which probably discourages the stockpiling of goodies for special occasions, Hayden adds.

Still, feasting ceremonies have arisen in a variety of locales since the dawn of farming communities around 10,000 years ago, he asserts. Moreover, feasts may have occurred in the Stone Age as well (see sidebar). The challenge facing archaeologists is to identify signs of particular kinds of feasts in the ruins of defunct groups.

Prehistoric earthen mounds built by inhabitants of the southeastern United States—dating to between 100 B.C. and A.D. 700—may have been sites of ritual feasts designed to strengthen local communities, proposes Vernon James Knight Jr. of the University of Alabama in Tuscaloosa. Investigators usually view these massive protrusions from the land-scape as the remains of seasonal camps (SN: 9/20/97, p. 180).

Many mound sites contain signs of having hosted public ceremonies that included feasting, Knight says. Clusters of postholes dot the tops of many mounds; large wooden poles or scaffolds were probably inserted in the holes and would have created an impressive setting for ritual activities, he maintains.

Mound excavations have also unearthed dense accumulations of pottery

MAY 23, 1998 SCIENCE NEWS, VOL. 153 331

and animal bones, along with the remains of ample hearths—all of which may derive from feasts, according to Knight. For instance, his analysis of animal remains recovered at two mound sites reveals a preponderance of white-tailed deer bones, mainly from the haunches and other prime meat-bearing areas.

The meat was apparently butchered elsewhere and carried to the mound areas for consumption, Knight contends. White-tailed deer have long held great spiritual significance for Native Americans living in this part of North America; the eating of deer meat probably took place during ceremonies intended to perpetuate the universe and ensure healthy crop yields, the Alabama researcher theorizes.

Similar feasts occurred at around the same time in a South American farming community, says Linda A. Brown of the University of Colorado at Boulder. Brown participates in excavations at Ceren, a village in El Salvador that was blanketed by ash when a nearby volcano erupted in about A.D. 590.

Ceren contains a large "feasting facility," a building once used to prepare, store, and dispense food that people apparently ate elsewhere. The compacted, flattened earth leading up to one of the structure's doorways indicates that many people walked across that area, probably to obtain food through the narrow entryway, Brown says.

Along with abundant food-related items, the feasting structure contains ritual items, including a headdress made from a deer skull.

A small house situated nearby yielded numerous artifacts used for grinding corn and preparing other types of food that would have contributed to feasting supplies, Brown adds.

"Ceren festivals must have been relatively frequent, because they needed permanent buildings devoted to feasting," Brown says. Based on what is known about other ancient cultures in Central America, Ceren feasts may have coincided with ritual attempts to maintain a balanced universe and a healthy community, she adds.

easts have also served as platforms for leaders to forge political alliances that feed their authority. Written accounts of Chinese travelers describe ceremonial feasts of this kind in the Philippines as many as 1,000 years ago, says Laura Lee Junker of Vanderbilt University in Nashville. Local chiefs reinforced their power by hosting feasts at which they negotiated political arrangements with influential families in the vicinity.

Excavations of such families' houses, ranging from 900 to 400 years old, have unearthed abundant bones of pigs and water buffalo. These animals were eaten primarily at feasts, notes Junker. Chinese



Attendees at a Luo feast use straws to drink beer from a pot.

porcelain, a high-status accompaniment to upper-class feasts, has also turned up.

Around 500 years ago, she adds, lowerstatus folks started to emulate the elite. They left behind evidence of less elaborate feasts at which they used inexpensive, knockoff versions of cherished Chinese porcelain.

In other societies, feasts served starkly competitive or coercive purposes. The potlatch ceremonies of Native Americans in the Pacific Northwest, perhaps the most intensively examined feasts, require a host to demonstrate wealth and generosity with a lavish distribution of goods

or even the destruction of personal property. Celebrants are expected to return a host's favors and, if possible, to up the ante at their own potlatch observances.

Tribal chiefs in 19th century Hawaii embraced feasts as special symbols of their power and superiority over their subjects, points out Patrick V. Kirch of the University of California, Berkeley. Hawaiian chiefs were literally big men, corpulent hulks who collected tribute from the populace to support their constant royal feasting.

Rulers' reliance on feasts as a kind of tax collection mechanism extends back

Netting clues to Stone Age feasts

When scientists talk about prehistoric hunters, their thoughts often turn to bravehearted blokes in their physical prime who speared or trapped big game. They may have to think again.

Artifacts from a 27,000-year-old site in the Czech Republic indicate that a broad spectrum of its ancient residents—including women, children, and the elderly—joined hunting expeditions in which rabbits, foxes, and other small prey were caught in homemade nets. Communal hunting of this type occurs in some modern hunter-gatherer groups and typically results in large food yields, ceremonial gatherings, and feasts, says study director Olga Soffer of the University of Illinois at Urbana-Champaign.

However, the site, known as Dolní Vestonice, contains no solid evidence of having hosted Stone Age feasts. "We have to be careful, because feasting is not a universal behavior," Soffer contends. "I'm not sure how its existence at Dolní Vestonice could be clearly demonstrated."

Soffer and her colleagues identified impressions of woven material on pottery fragments found at the site. Along with similar finds at a nearby location (SN: 5/6/95, p. 276), these discoveries represent the oldest known examples of weaving.

Forty-three clay pieces from Dolní Vestonice display impressions of basketry and textiles, including one woven fragment that compares in quality to modern linen. Several imprints of string or rope contain weaver's knots, a technique used to tie separate lengths of cord into secure nets.

Numerous rabbit and fox bones have also been found at Dolní Vestonice and Pavlov I. Mobile groups of 50 to 100 people occupied these sites for a few months at a time and hunted communally, Soffer theorizes. After throwing nets over small animals, just about anyone could have stabbed, clubbed, or beaten the prey to death. This method of meat procurement undoubtedly produced at least temporary food surpluses. "But that's not enough to show without a doubt that feasting occurred," Soffer cautions. —B. Bower



Luo women prepare ingredients for brewing beer to be consumed at a feast.

more than 4,000 years to ancient Sumeria, the earliest known civilization, asserts Denise Schmandt-Besserat of the University of Texas at Austin.

She finds many artistic portrayals of feasts on Sumerian monuments, plaques, and cylinder seals. Economic records written on clay tablets list feasts from throughout the year and tally up the offerings associated with each of them.

Sumerian rulers organized a feast each month in honor of specific gods, the Texas researcher says. Large processions of worshippers, including representatives of government groups and professional guilds, brought various foods and other gifts to the royal palace. Part of this bounty was consumed in a community banquet. The queen was responsible for divvying up portions of the remainder for the royal family's use and for divine offerings.

"The feast was a means of collecting surplus goods that then constituted the wealth of the royal palace," Schmandt-Besserat contends.

Sumerian citizens feared the wrath of deities who received inadequate awards, she adds. Households worked hard to produce surpluses of food and other goods so that they could surpass their neighbors in the quantity and quality of their offerings to the gods—via the royal family.

n the United States, feasts are still going strong, even if tax-collecting rituals now revolve around 1040 forms and IRS audits. Evidence of relatively frequent household feasts appears in an analysis of discarded artifacts, otherwise

known as garbage, obtained during 1994 from Tucson trash collectors.

The Garbage Project, directed by William L. Rathje of the University of Arizona in Tucson, has tabulated characteristics of solid waste in 15 North American communities over the past 25 years.

A feast occurs in the average Tucson household around every 100 days, according to Rathje and his colleague Douglas C. Wilson. Communal eating and drinking occur on all sorts of occasions, from Christmas and Presidents' Day to end-of-the-work-week celebrations, Wilson says. Tucson feasts, which are intended primarily for entertainment, usually feature a variety of snack foods and considerable alcohol.

These events are relatively small, usually attracting between 15 and 45 people, Wilson remarks.

Larger feasts accompany events such as weddings, but these gatherings also emphasize entertainment rather than community cohesiveness or spiritual connections, he adds.

"We've emasculated and secularized many feasts by transferring them to restaurants, where debts are not entered into a social and political order but are paid off with a credit card," Wilson asserts.

Archaeological payoffs in the quest to illuminate ancient feasts remain rather meager, acknowledges Hayden. Many investigators who stumble upon the remnants of a vast repast think they have simply arrived unfashionably late to what was once a big party, he argues.

"There are signs of improvement, but the theoretical understanding of feasting behavior has been pretty abysmal," Hayden notes. trust. This explains why generosity and cooperation rise among participants who have a chance to talk and discover common interests.

Marilyn Kramer Wausau, Wis.

Although not elaborated on in the article, researchers who conduct ultimatum and public goods experiments indeed consider trust to be important. However, no single variable easily explains the economic behavior of an animal that mixes multiple group affiliations with self-interest.

—B. Bower

I have never read an article in a respectable publication that was so full of methodological, logical, and theoretical fallacies as this one. First of all, "games" are just that—games! People "play" very differently when the stakes are real. Secondly, the games used were apparently zero-sum games, with a definite and finite amount of money or rewards in each one.

A real capitalistic, market economy is not at all like that. A market economy produces wealth and new capital. The capitalist does not need to depend upon taking away from the other guy in order to make a profit. In fact, he may need to give to the other guy to make a profit (increase his capital). The game players left out the whole matter of productivity, which is at the heart of a capitalistic, market economy.

Roland Sparks Lake Forest, Calif.

We invite you to visit our Web site at:

SCIENCE NEVS

http://www.sciencenews.org

- Highlights from current and past issues
- MathTrek, Food for Thought, and other features not in the magazine
- Full text of selected articles from Science News
- Complete book listings
- Ability to search and contact SCIENCE NEWS ONLINE
- Bibliographic references for SCIENCE NEWS articles