

## Anthropology

Bruce Bower reports from Washington, D.C., at the annual meeting of the American Anthropological Association

### Classic Maya fight to their finish

Excavations at two Maya sites in the Guatemalan lowlands last summer uncovered evidence of widespread warfare in the region from around A.D. 700 until the end of the Maya's "golden era" or Classic period, around A.D. 900, reports Arthur A. Demarest of Vanderbilt University in Nashville.

Anthropologists have long debated the nature of Maya warfare and its role in the collapse of the Classic-era cities, which first sprang up around A.D. 250. Some researchers contend Maya rulers engaged in limited, ritualized battles that did not stimulate the Classic decline (SN: 6/7/86, p.360). But the new investigations, which represent the first of six seasons of field work in Guatemala's Petén province, suggest warfare played a critical role in undermining the Classic culture, Demarest maintains.

At Dos Pilas, where previous excavations have been conducted, Demarest and his co-workers uncovered the remains of defensive walls apparently constructed in haste toward the end of the 8th century A.D. In the early 8th century, Dos Pilas became a large Maya kingdom through conquest of nearby city-states. But low platforms used for housing and pieces of plain pottery found behind the Dos Pilas walls indicate the site was "a small, impoverished village during the late Classic period, besieged from without," Demarest says.

An as-yet-unnamed Classic Maya site was located on a piece of land jutting into the Petexbatun River, a major lowland waterway. On the small peninsula, Demarest's team unearthed three concentric trenches dug into bedrock, which allowed nearby river water to flow in and create moats. Each trench is about 25 feet deep and at least 300 feet long. A stone wall stands behind the trenches. "These are among the most massive defensive fortifications in Maya [history]," Demarest says.

In future work in the Guatemalan lowlands, the team will seek to discover the reasons for intensified warfare preceding the Classic-era crash, he says. These may include rapid population growth, food shortages spurred by slash-and-burn agriculture, and trade competition between city-states.

### Migration evolves Down Under

Some scientists hold that the genetic mixing of Neanderthals living in western Europe more than 40,000 years ago with early *Homo sapiens* migrating from the Near East produced the line of fully modern humans (SN: 2/27/88, p.138). But population migration is overrated as an agent of human evolutionary change, argues Milford H. Wolpoff of the University of Michigan at Ann Arbor. In Wolpoff's view, the limited role of migration is apparent in the fossil record of another region on the periphery of human evolution: Australia.

"The origin of modern Australian aborigines can be traced to Indonesia," he says. "But [later] arrivals from Indonesia weren't more modern [anatomically]; they were more Asian."

The earliest Australian immigrants arrived about 50,000 years ago. Wolpoff maintains that the shape and thickness of the immigrants' skulls is comparable to that of Indonesian specimens dating to approximately 250,000 years ago, suggesting a genetic connection. By 10,000 years ago, after a long stretch of Indonesian migrations, Australians displayed flat noses and other cranial characteristics that largely resemble those of contemporary Indonesian and Chinese finds.

Wolpoff says the same effects of population migration have occurred in western Europe, where changes in climate and social organization may have had more influence on the development of anatomically modern humans than did the arrival of immigrants with Near Eastern features.

"The Australian model shows that migrating populations bring with them different anatomical features but not necessarily more modern features," Wolpoff concludes.

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## Behavior

### Kind ears help some depressed patients

Sympathetic attention may help moderately depressed people as much as treatment with the antidepressant drug imipramine or two major forms of psychotherapy, according to a multicenter study described in the November ARCHIVES OF GENERAL PSYCHIATRY. Severely depressed individuals in the study benefited most from the imipramine, although psychotherapy also showed positive effects in these individuals.

Psychologist Irene Elkin and her colleagues at the National Institute of Mental Health in Rockville, Md., say their study is the first to compare interpersonal psychotherapy with cognitive behavior therapy. Cognitive behavior therapy aims to correct patients' overly negative, distorted views of themselves and the world. Interpersonal psychotherapy seeks to help patients identify and resolve problems with other people.

To standardize clinical care, psychotherapists in the study also provided "clinical management" to imipramine and placebo patients — offering minimal support, encouragement and advice but not psychotherapeutic interventions. Elkin's group found that moderately depressed patients on the placebo improved just as much as those receiving imipramine or psychotherapy, suggesting that the sympathetic attention itself offered benefits in such patients.

The study involved 250 individuals diagnosed with moderate to severe depression but not psychosis or manic depression. The volunteers were randomly assigned for 16 weeks to one of the treatments or placebo. In combining results from all patients, the researchers found no statistically significant advantage for any one treatment, confirming preliminary results (SN: 5/24/86, p.324). But Elkin says they did discern that in general, imipramine worked best and the placebo worked worst, with the two talk therapies falling in between.

"It's important to look at follow-up studies of those patients," says Elkin. "We don't know whether the improvements will carry forward." The researchers plan to conduct three evaluations at six-month intervals after the treatment period.

Aaron T. Beck of the University of Pennsylvania in Philadelphia, who originated the concept of cognitive therapy, notes that the three main research sites (in Oklahoma City, Pittsburgh and Washington, D.C.) yielded different outcomes. These variations, he argues, could have stemmed in part from differences in the training of therapists at each center. Beck also emphasizes the need for follow-up, noting that a recent analysis of 28 studies of cognitive therapy found it more effective than medication in the long run.

### Drug delays Parkinson's progression

Preliminary results of a multicenter trial support earlier indications that the drug deprenyl can delay the onset of disability in patients with Parkinson's disease, investigators report in the Nov. 16 NEW ENGLAND JOURNAL OF MEDICINE.

The researchers administered deprenyl, the vitamin E derivative tocopherol, or both to 800 patients exhibiting early symptoms of Parkinson's. After a year of treatment, only 97 of 399 subjects on deprenyl or the combination treatment progressed to debility, compared with 176 of 401 patients on tocopherol alone. Caroline M. Tanner of Rush Presbyterian St. Luke's Medical Center in Chicago, who helps direct the ongoing study, calls the deprenyl results "truly dramatic" and says all subjects are now receiving the drug, with or without tocopherol. Deprenyl is the first drug capable of altering the progression of a neurodegenerative disease, Tanner says.

The FDA last June approved deprenyl as an adjuvant therapy with the drug levodopa in severely ill Parkinson's patients. In August, researchers reported results of a smaller study in which deprenyl alone appeared to delay disease progression (SN: 8/5/89, p.84).

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