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**A New Year:** With this issue, the ANTHROPOLOGY NEWSLETTER begins its 18th year of publication at Bloomsburg University. The intent of the NEWSLETTER is to bring news of and information about anthropology and diversity to the university community: students, faculty, staff, and administrators. The NEWSLETTER is published six times each academic year and is distributed free. If you would like to be on our mailing list, please contact Dave Minderhout in the Department of Anthropology at 389-4859.

**Wind and Water:** Anthropologists define magic as a ritual formula which, if performed correctly, requires supernatural powers to respond in a predictable way. The definitive work on the theory and practice of magic was Sir James Frazier's THE GOLDEN BOUGH, published in several volumes between 1911 and 1915. In this monumental work, Frazier, a devout Christian, predicted the demise of magic in the 20th century as people became educated and learned to see magic's irrelevancy and inability to deliver what it promises. But as every anthropologist knows, Frazier's prediction did not come to pass. Magic is still a vital part of many - if not all - modern cultures. In fact, as the many stresses of modern life pile up, the idea of magic seems to become even more powerful.

An example of the use of magic in the modern world is the Chinese practice of *feng shui*, literally, "wind and water." Feng shui is built on the presumption that the buildings in which we live and work - as well as their furnishings - should be arranged so as to derive the maximum benefits of good luck, material well being, and a stress-free life. A business running into hard economic times or an individual who constantly has accidents around the home may be the unwitting victim of poor spatial arrangements. In places such as Hong Kong, these unlucky folks can purchase the services of a feng shui specialist who will analyze a structure and make recommendations about the most propitious use of space or placement; these services can cost hundreds or even thousands of dollars.

It is believed that feng shui has its origins in the Chinese belief in the importance of ancestral spirits. For thousands of years the Chinese have believed that the spirits of one's dead ancestors remain involved in the lives of living descendants; these spirits can intervene to offer their living relatives good luck, health or material good fortune. To maximize the potential of this ancestral beneficence, tombs were placed in locations that were thought to bring good luck. Often the considerations that went into the good placement of a tomb - or later, a building or home - were based on common sense. A hillside was better than a flat plain if there was a fear of flooding; a south-facing slope was better than one on the north so as to catch more of the sun's rays, and so on. Feng shui was extended from tombs to the buildings of the living in the

Han dynasty, which began in 206 B.C. In the 20th century millions of dollars have been spent in China rerouting prospective roads, tunnels and bridges so that they would not interfere with inhabitants' feng shui or to avoid unlucky placements.

When called in as a consultant, a feng shui specialist will analyze a home or a business' use of space to determine where there are strong energy fields. Of particular importance is locating areas where there are accumulations of negative *chi*, or energy fields, or where the family's or business' energy might be flowing in unwelcome directions. Solutions might include rearranging the furniture, arranging objects to block unwelcome flows of energy, or stationing objects to absorb negative *chi*. In Chinese communities there are usually a variety of shops that sell recommended paraphernalia to make homes or businesses more satisfactory. In the case of a new building, a feng shui reading is necessary to determine the proper placement of the structure, both within its lot and vis-a-vis other existing structures. Buildings with sharp angles are thought to be especially dangerous not only to their inhabitants but to neighboring structures at which they point; a sharp corner is like a dagger aimed at one's neighbors. To maintain good harmony, a well-placed structure incorporates curves into its shapes.

As an example, Hong Kong residents point to the Bank of China building designed by the renowned architect I.M. Pei and built during the late 1980's. The tallest structure in Hong Kong at 70 stories, the building is all sharp angles and points, which reflect on nearby structures, including the Bond Centre. The Bond Centre housed the international operations of Australian billionaire Alan Bond, including the now disreputable Bank of Credit and Commerce. In the United States, the demise of the Bank of Credit and Commerce this past year was thought to be due to the discovery of its involvement in international corruption and greed, but in Hong Kong, people know the real story. You see, the Hong Kong subsidiary of the bank was housed in a corner of the Bond Centre facing one of the deadly edges of the Bank of China building.

To read more about feng shui, please see the article by Susan Hornik in the August 1993 issue of SMITHSONIAN.

**Anthropology Club Officers:** The officers for the Anthropology Club for 1993-94 are as follows: President, Ruth Bell; Vice President Melissa (Pertnoy) Sherman; Secretary, Jen Scales; Treasurer, Rejena Girton; Public Relations, Nicole Dolat; and Historian, Neil Dolan.

The Anthropology Club sponsors a variety of programs and is open to any student interested in anthropology. Dr. Aleto is the faculty adviser.

**AIDS in Africa:** The world-wide AIDS epidemic has had its hardest impact on SubSaharan Africa where some estimates suggest that 1 in 8 adults between the ages of 15 and 45 have the HIV virus. One of the factors that has helped in the spread of AIDS there has been local folk beliefs about the disease. The following excerpt from the NEW YORKER by Ted Conover ("Trucking Through the AIDS Belt," August 16,

1993, pp. 56-75) illustrates some of these beliefs. (Note: according to the World Health Organization, only about 25% of the world's population believes in the germ theory of illness. Folk beliefs about health and illness are among the many topics addressed in medical anthropology).

"Though it had been drawn by an African hand, the poster carried a very Western message. The idea behind it was that a simple dose of correct information could make a huge difference in people's lives. The challenge was to print up enough posters, and hang them in enough public places.

But already I could see the barriers.

'You know,' Cromwel said, musing on the poster. 'Some people are immune from AIDS.'

I told him that was not known for sure.

'But they are not certain? Then I think it could be true!'

Francis said he had heard many different stories about AIDS. 'First, we were told the *wazungu* (white people) brought it,' he said.

'*Mzungu* scientists were the first to identify it, but they think it came from here,' I replied. Francis looked at me as if to say, Well, of course they do. 'Then they said that truck drivers brought it!' he continued. 'There was a time when the women wouldn't sleep with *wazungu* or drivers. Now they will, but they want condoms with people they don't know.'

'Yes,' Cromwel said. 'They want condoms with unmarried people. But if you talk with them and they come to trust you, then you don't have to.'

'That's right,' Francis agreed. 'If you're married, with kids, it's much better. And if you are healthy.'

'You mean looking healthy,' I said. 'You can look healthy, but still have the virus that causes AIDS.'

Though Obadiah understood this, the others were less familiar with the idea of being infected, but showing no symptoms. I explained it, realizing as I did that understanding HIV infection really required a rudimentary knowledge of biology, of how infections occur - and not only an understanding, but a belief in it, for, as they listened and I talked, I could see my words getting filed in the mental drawer labelled 'Possible Explanations.'

And if you did get AIDS, Cromwel added, there was always a virgin.

'What?'

Yes, you know, if you sleep with a virgin, it will often take away your AIDS,' Cromwel assured me. He knew people who had done it. I winced, and told them it wasn't true. If you slept with a virgin, you would probably just give HIV to the virgin. They didn't argue with me. Modern medicine, which I took to be a challenge to traditional beliefs, they saw as merely a complement to them. My rebuttal of every African idea about AIDS probably sounded very close-minded to them.

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When I went out on the hotel porch, I could hear the faint noise of a generator and of American voices arguing: someone had a TV. Around the trucks, it was dark, but I heard laughter on the other side and wandered over to some lantern-lit tables in front of one of the small places across the road. There a round innkeeper named Bora was joking with the drivers. They introduced me, and she continued with a story she'd been telling. It turned out that when the authorities went to the house of this man in Uganda who'd died of AIDS they found dozens of packages of unused condoms. Ah, I thought, there's a moral here, of the right kind. 'And all the condoms had dates that had expired.'

Knowing murmurs circled the table, and I asked Francis to explain. 'These condoms, when they are too old, contain germs,' he said. 'And that's how he got AIDS.'

'From expired condoms? That's ridiculous.'

The woman asked Francis to translate my English. She looked hurt and offended, and replied sharply to him. 'She says you should not doubt her. She knows - she is from Uganda,' Francis said.

I touched her arm and tried to have Francis explain that I did not doubt her word, merely the interpretation of the facts. I could see that this was a losing day for Western medicine. I ordered a beer, quickly drained it, and returned to my bed." (pp 67-68).

**92 Field School Written Up:** A brief description of the 1992 summer field school and its findings was recently published in *AMERICAN ANTIQUITY*, the most important journal in American archaeology. The account reads as follows:

"Bradley Lepper (Ohio Historical Society) and Dee Ann (sic) Wymer (Bloomsburg University [BU]) directed test excavations of part of the Newark Earthworks at Great Circle Park, Moundbuilders State Memorial during the summer of 1992. BU field school students and volunteers cut a 1.5 x 16.5 m trench down to a depth of 4 m through the northeast section of the Great Circle embankment, excavated a 1 x 4 m trench in the interior ditch, and dug a 1 x 14 m trench where it was suspected that an outer polygonal wall surrounded the Great Circle. The trench through the Great Circle

embankment revealed two construction layers overlying an unprepared buried humus horizon. The profile of the trench in the interior ditch suggests that the fill from the first layer of the embankment was taken from the ditch, while the stratified orange and gray gravels in the second layer were obtained elsewhere. The trenches also revealed that historic WPA-era restoration of the Great Circle added nearly a meter of gravel to the surface of the embankment. No prehistoric artifacts were recovered from the embankment trench, and only a few chipped-stone flakes and mica fragments were found in the ditch fill. The outer trench exposed an anomaly that may represent a low earthen wall that was removed by plowing. Organic materials from the trenches have been submitted to Beta Analytic for radiocarbon dating. (July 1993, p. 577)

**BU Grads Doing Ohio Archaeology:** Recent BU graduates Crystle Reustle and George Stout are now working in east-central Ohio with Dr. Paul Pacheco on an archaeological survey for the Old Straitsville Water Pipeline Project. Crystle and George are also helping out in the excavation of a late prehistoric village - the Philo II site - near Zanesville, Ohio. Next summer's field school will probably be at the Philo II site; see Dr. Wymer for more details.

**Summer Heat & Human Evolution:** This past summer has been unusually hot and dry in Bloomsburg, and the weather naturally lends itself to a consideration of human evolution. You see, the human brain is especially vulnerable to heat. A rise of a few degrees in body temperature to 107 degrees F. can pose a real threat to the brain and can lead to convulsions, hallucinations, permanent neural damage, and sometimes death. Because of its large size, the brain itself produces a lot of heat which must be dissipated to prevent damage. Fortunately, in human evolution, a network of tiny veins has developed that serves as a cooling system for the brain. These veins originate in the scalp and face.

When a person exercises, for example, his or her face will flush as arteries dilate to bring more blood near the skin surface, which is cooled by the evaporation of sweat. Much of this extra blood, now cooled, enters the emissary veins and is delivered into the meningeal veins and sinuses of the dura mater, which covers the brain. From there, some of the blood flows to veins within the surface of the brain itself. As it circulates, the blood removes heat from these regions. By the time it joins other venous blood leaving the skull, it is warmer than the oxygenated arterial blood that supplies the brain. This venous network does not have valves, allowing the blood to move freely as required.

Paleoanthropologist Dean Falk notes in the August issue of *NATURAL HISTORY* notes that this venous radiator is absent in both apes and in some of the fossil australopithecines, namely the earliest (*A. afarensis*) and the later "robust" forms. (Evidence for veins in fossilized material is in the form of emissary foramina, holes in the skull which accommodate emissary veins.) The venous radiator appears first in the gracile forms of the australopithecines around two and a half million years ago and continues to expand in size through various forms of the genus *Homo* up until about 100,000 years ago. Falk concludes from this that humans evolved directly out of the

gracile australopithecines.

In the same issue of *NATURAL HISTORY*, zoologist Pete Wheeler points to an advantage of bipedalism, or upright posture, with regards to heat. Wheeler notes that upright posture exposes less of the body to the direct rays of the sun than quadrupedal posture. Using models in the equatorial sun of East Africa, Wheeler found that at midday when the sun is directly overhead, the heat load on an upright form is only about 40% of that received by a quadruped of similar size. Bipedalism also combats the heat by raising most of the body well above ground level and by allowing freer air circulation around the upright form. He concludes that a bipedal hominid would have lost about one-third more body heat through air movement (convection) than a quadruped.

Less body heat provides many advantages beyond the obvious. A bipedal hominid would have been less dependent on shade, allowing it to forage in the open longer and at higher temperatures. Less body heat would also reduce the need for water. Wheeler estimates that while a quadrupedal hominid would have required five pints of water a day, an upright form would have required only three. In addition, upright locomotion at low speeds uses less energy than quadrupedalism, which in turn reduces both the rate at which heat is generated internally and dietary requirements.

This finding may be significant given the evidence linking human evolution to the savanna environments of East Africa. Current thinking suggests that human evolution is directly linked to climate patterns in East Africa five to seven million years ago. During this time period, the climate of East Africa was becoming warmer and drier, and much of the tropical rain forest that had carpeted the area gave way to dry grassland. While apes remained in the remnant moist forests, early human ancestors moved out into the grasslands, where among other things they adopted upright posture. Anthropologists have argued for decades about the reasons for evolving bipedalism. Wheeler's analysis suggests another factor in the process.

#### **Office Hours for Anthropology Faculty:**

Dr. Aleto (X4333) - MWF 12-1, T 1-3

Dr. Minderhout (X4859) - MWF 8:30-10, TuTh 8:30-9:30, 11-12:30, Tu 6-6:30 PM

Mr. Reeder (X4334) - MWF 9:30-11:30, M 5-6 PM, Th 9:30-12:30

Dr. Wymer (X4858) - MWF 10-11, TuTh 9:30-10:30