New council for science and society: 'Social consequences for good or ill'

Last September the British journal NATURE carried an article titled "A Corporate Conscience for the Scientific Community?" In it retired lawyer Paul Sieghart summarized a two-year study by him and six other British scholars that suggested creation of a new body to consider the social consequences of science. The organization would be "organized by the scientific community itself and expressly charged with the task of informing the public in general, and the organs of government in particular, at the earliest possible time, of all scientific work likely to have important social consequences for good or ill."

Last week at the Royal Society in London the creation of such a group was announced. It is to be called the Council for Science and Society. It is believed to be the first organization of its kind.

Thirty-two prominent persons, including Nobel laureates Maurice H. F. Wilkins and Denis Gabor are members. Sir Michael Swann, chancellor of Edinburgh University and chairman of the British Broadcasting Corp., is chairman. Sieghart is vice chairman. Other members include astronomer Sir Bernard Lovell, geneticist C. H. Waddington, psychiatrist Anthony Storr, historian Edward Crankshaw and writer and gerontologist Alexander Comfort.

One of the first subjects the council will examine is the control of human behavior, including mood-changing drugs and methods to determine sex before birth. The council plans to select six such projects for its first three years.

The hope is that the council, if it works well, will serve as a model for such bodies in other nations, much as the Royal Society did for scientific societies.

"[The council] is not committed to any view of scientific optimism or pessimism about the future of man," says its statement of objectives.

"It will try to identify areas of research in science and technology which could have important social consequences for good or ill, but which are not yet fully explored; to study these objectively; to attempt to foresee what their consequences might be; whether they could be controlled, and how, and to publish responsible reports designed to stimulate wide public debate."

archaeologists and geologists have been chipping away at it.

Vance Haynes of Southern Methodist University in Dallas said the site was probably 500,000 years old (SN: 2/6/71, p. 98). The artifacts would have to have been made by pre-Neanderthaloid peoples. And after more than a century of investigation, there is no evidence of significant human evolution in the New World. After six visits to the Calico dig, Haynes still believes the site to be 500,000 years old. In the July 27 SCIENCE he presents evidence for this date and proposes an alternative hypothesis for the origin of the flaked stones. Instead of artifacts, he says, the specimens may be geofacts —artifact-like phenomena of geologic origin.

The deposit from which the stones were taken, he says, was formed by a mudflow out of the Calico Mountains. The chert or flint fragments were therefore subjected to a two- to four-mile journey over rough ground. Fragments falling, tumbling and sliding down steep slopes can produce the same percussion fractures and battered edges a primitive flint knapper (chipper) would have produced by hammering the flints with tough igneous rocks. Tectonic stress and weather fracturing (root pressure, freeze-thaw cycles, etc.) are other natural processes Haynes cites as ways in which nature imitates the flint knapper's work.

Haynes also questions another piece of evidence used by Leakey and Simpson to indicate human habitation. What looked like a hearth was unearthed at the site. A group of wedge-shaped stones were set in a circle that could have been a fireplace. Tests of one of the rocks showed that the smaller end had a high amount of magnetism, indicating that it could have been subjected to high temperatures. Haynes says circular formations of stones are not rare and the magnetism could have been produced by lightning. In conclusion Haynes says, "After examining, for the sixth time, the Calico site and specimens recovered . . . I find no evidence to alter my previous views—that is, that the evidence for artifacts remains uncompelling and that a natural origin cannot be precluded." □

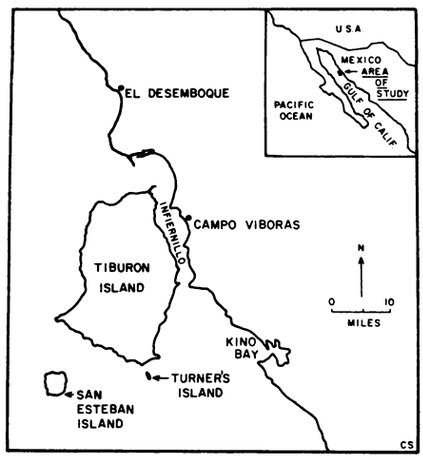
A grain from the sea serves as Seri's gruel

The first known case of a marine grain being used as a human food resource is reported in the July 27 SCIENCE.

Botanist Richard Felger of the University of Arizona and linguist Mary Beck Moser of the University of North Dakota learned of the practice while studying botany and the Seri Indians along the Gulf of California in Sonora, Mexico.

Zostera marina, or eelgrass, is harvested in the spring by the Seri Indians and has apparently been an important part of their traditional diet and culture for centuries. "Eelgrass has considerable potential as a general food resource for mankind," say Felger and Moser. "Its cultivation would not require fresh water, pesticides or artificial fertilizers."

Eelgrass, a widely distributed sea plant with an edible grain, grows along the coasts of North America and Eurasia. In spring, the upper stem of the plant, which bears the fruit, breaks off and floats on the surface of the water. The Seri harvest the grain in April when the plant is floating loose in large quantities close to the shore. The protein and starch content of the seed is similar to that of many terrestrial grains in widespread use as food.



Felger and Moser/Science

Indians harvest eelgrass in gulf.

Once they harvest the eelgrass, the Seri spread it along the beach to dry and then pick out seaweed and debris. Traditionally, they toast it and grind it into a flour. The flour is cooked with water and made into a gruel. Generally, the Seri eat the gruel with other food, usually sea turtle oil or honey. A portion of the grain is stored for the rainy season.

Though eelgrass is primarily a food for the Seri, it is also used as a cure for diarrhea. It is piled over house frames for shade and it is fashioned into toys for children.

"We know of no other case of the grain of an ocean plant being used as a human food resource," write Felger and Moser. "The cosmopolitan distribution of *Zostera* in shallow coastal waters enhances its possible significance as a food plant. . . . Prejudices against strong and unfamiliar flavors do not present a complication since the flour is bland." □