crats notwithstanding, FUNAI has failed to prevent, and in some cases has abetted, the seizure of Indian land. Since the mid-1970's, prospectors primarily seeking gold have invaded Indian territory; laws later enacted to stop those seizures were rescinded in a government decree of 15 January 1980 that allowed prospectors working for government enterprises to enter Indian lands. Furthermore, the introduction of diseases such as malaria, whooping cough, and hepatitis against which the Indians have no resistance, has decimated their ranks in the same manner that the expeditions accompanying Columbus all but eliminated by disease the original population of the islands of the Caribbean.

FUNAI has been pressured for years to create a national park for the protection of the Indians; all of FUNAI's proposals, including one which called for the creation of 21 small, disconnected Indian reserves, have been soundly rejected by those concerned about the survival of the native population. A proposal for one undivided park that was advanced by the Committee for the Creation of Yanomami Park was rejected by FUNAI. At the present time, while FUNAI considers and rejects proposals, the destruction of the native population continues.

One can only hope that in the future the Brazilian government will show as much concern for the survival of its native population as it does for technocratically defined economic development.

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X-ray Holography

In Arthur L. Robinson's article "X-ray holography experiment planned" (Research News, 29 Jan., p. 488), reference is made to my "enthusiasm" about the possibility of trying an x-ray holography experiment. What I said in a telephone interview with Robinson, in response to a question about the possible importance of x-ray holography, was that our work here on soft x-ray microscopy (*1*) had convinced me that soft x-rays have an important potential in biological imaging. I also said that the advantage of holography as an imaging technique over microscopy in my opinion is rather doubtful, but that naturally the holographic technique should be tried if it becomes possible to do so. To go further and be really enthusiastic about a technique that may require a nuclear explosion as the price of switching on the microscope seems a little difficult to me.

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The Cray-1

Arthur L. Robinson's Research News article "New superconductors for a supercomputer" (1 Jan., p. 40) contains the following line: "This is more than 25 times as fast as today's large, general-purpose computers can run and is about 10 times as fast as the Cray-1, a special-purpose scientific computer."

The Cray-1 computer is neither "special-purpose," nor are its uses confined to "scientific" applications. The Cray-1 is a powerful, general-purpose computer and can be programmed (in assembly language or in higher level languages) to do anything normally required of any other general-purpose computer (but usually faster). Signal processing is one example of its use that could be called "scientific" only by severely stretching the usual meaning of that word.

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Synthetic Vaccines

As mentioned in Nicolas Wade's article (News and Comment, 7 Aug., p. 623), the concept of synthetic antigens as a research tool is not in itself particularly new. Futhermore, even the idea of the synthetic vaccine is in fact not novel, since it was published 8 years before the articles by the groups at the University of California, San Diego, and the Salk Institute and at the Scripps Clinic and Research Foundation appeared in the fall of 1980 (*1*).

In a 1972 publication Arnon (*2*) outlined the advantages of using synthetic macromolecules as multivalent vaccines. As the result of studies with MS-2 bacterial virus, Langbeheim *et al.* (*3*) in 1976 reported evidence that a synthetic peptide corresponding to a region involved in viral neutralization can be utilized for eliciting antiviral activity. The concept of synthetic antiviral vaccines was, with this, established and demonstrated in a suitable virus model. The complete nucleotide sequence of bacterial virus MS-2 RNA was published during the same year by Fiers *et al.* (*4*) using the slow, work-intensive sequencing methods of that time. However, the synthetic vaccine against MS-2 was developed based on the sequence information of the proteins and not the nucleic acid; obviously protein sequencing was far easier to do than RNA sequencing. The Weizmann Institute team did not take out a patent on the idea of synthetic vaccines, since commercialization of ideas and concepts was still an unusual event in academic research at that time.

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Damaging Stereotype

Thomas H. Maugh II's article on the Food and Drug Administration's approval of the new hepatitis B vaccine (Research News, 4 Dec., p. 1113) contains an error which perpetuates a damaging stereotype of homosexuals. In the middle of Maugh's article one reads: "[The vaccine] is not meant for the population at large, but for the roughly 10 million Americans considered at high risk of developing the disease—health care workers, drug addicts, sexually promiscuous individuals, and male homosexuals." Certainly the only male homosexuals at risk are those adequately described under the rubric "sexually promiscuous individuals." Nonpromiscuous homosexuals are at no higher risk than nonpromiscuous heterosexuals.

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