

dustry would earn approximately \$450 a month; in the United States, such a researcher would make more than \$1300 a month, and in West Germany, more than \$740.

That Israel is only now attempting to create a genuine research-oriented industry may seem puzzling. Why not 20 years ago?

The most obvious answer is that these things take time, and Israel has been busy with much more pressing problems—such as survival and the absorption of hundreds of thousands of new immigrants.

Most of the newcomers, who originated in Arab countries, were without savings or skills. They had to be housed, fed, and given jobs. As a

result, government investment went into industries which employed many people and thus could meet the needs of the new residents; building and textiles are prime examples. Technologically advanced firms simply did not fit into the picture; they didn't make the right things or employ enough of the right kind of people.

The new interest reflects an important shift in economic thinking here. An old problem—an adverse balance of trade—is being given new attention. Ever since achieving independence, Israel has imported more than it has exported; this situation stems from the country's large defense needs, the capital equipment demands of new industry, and the consumer preferences of a large middle-

class population. The import excess has long been covered by large inflows of private capital—German reparation payments, charitable contributions, and investments. But, as the country progresses, the import bill grows, and some sources of foreign funds, such as reparation payments, end; the effect of this is an increased need to earn more abroad, and this, in turn, focuses attention on science-based industry.

A dismal trade picture 3 years ago prompted the government to initiate a "slow-down" policy which eventually turned into a severe recession. According to some economic observers, that slump, now ended by economic expansion after the Six Day War, prompted many investors to reevaluate the direction of the Israeli economy and turned them toward export-oriented industry. Simultaneously, government policy, based on a labor-socialist political philosophy, rapidly changed to become more hospitable toward the private sector.

Both these trends have undoubtedly helped science-oriented industry. Even so, the generally bright picture has more than a few dark spots. One particular problem is a traditional reluctance by Israeli industry to engage in R & D.

Significantly, in a country so strong in fundamental science, industrial R & D has always been something of a retarded child. Statistically it accounts for only 8 percent of the nation's total research and development bill. A number of theories are advanced to explain the backwardness.

Company size is said to be too small to support extensive research operations; in Israel, a firm with 500 employees is large. According to another theory, the current executive-producing elite is not sufficiently "research-conscious." Because of the government's prominent role in the economy and the powerful position of the central labor organization (the Histadrut, which also owns some of the nation's largest firms), many managers are said to have been appointed for "political" reasons; they are attuned to solving "social" problems (for example, absorption of immigrants) but not to profit-making or to planning research. Finally, Israel's basic-science tradition is said to be too strong; an influx of highly skilled scientists from eastern Europe in the 1930's started the tradition, and now the large majority of good students want to follow their teachers into academic laboratories and engage in research that will eventually lead to publication.

Did They Find "Cro-Magnuson" Man?

In what may be a continuing trend to "share the glory" of scientific discoveries with the public officials who make them possible, scientists from Washington State University announced a major archeological find to reporters assembled in U.S. Senator Warren G. Magnuson's office recently.

Geologist Roald Fryxell, assistant professor of anthropology, and Richard D. Daugherty, professor of archeology, announced the discovery of the "oldest human remains ever found in the Western Hemisphere" at an archeological site in southeastern Washington which will soon be flooded by waters of the Lower Monument Reservoir. The scientists said charred and shattered skull remnants and pieces of bone, as well as a pointed bone artifact, were found in sediments determined, through radiocarbon dating and from other considerations, to be 11,000 to 13,000 years old. Fryxell made the discovery, Daugherty directed the excavations.

Daugherty said the discovery was announced at a news conference because it seemed "a good time to say thanks" to Magnuson for sponsoring legislation that made the discovery possible. The senator, a Democrat from Washington, sponsored a 1960 bill that directs federal agencies to cooperate with scientists to preserve archeological relics "which might otherwise be irreparably lost or destroyed . . . by the construction of a dam." The scientists also thanked officials of the National Science Foundation, the National Park Service, and the Corps of Engineers for financing or otherwise assisting the excavation project. The officials, including Leland J. Haworth, NSF director, had been invited to Magnuson's office to take bows.

The Washington State research team presented a formal report of its findings at a meeting of the Society for American Archaeology in Santa Fe, New Mexico, early this month. The team also hopes to publish a report in a scientific journal in the near future.

Announcements of scientific achievements at press conferences or in press releases has traditionally been frowned upon by the scientific community, but there are signs the tactic may be coming into vogue. Last December the first announcement of the *in vitro* synthesis of biologically active deoxyribonucleic acid by Arthur Kornberg of Stanford and his colleagues was made by means of press releases and a press conference (*Science*, 22 Dec. 1967). The next step may be to name scientific discoveries after public officials. Evert Clark, science writer for the *New York Times*, suggested at Senator Magnuson's press conference that the new fossil might be called "Cro-Magnuson Man."—PHILIP M. BOFFEY