built on a thick pad of gravel, and the other of ARCO's discovery well, which, being in something of a mudhole, looked like a costly place to operate. "I have been in touch with the oil companies," Brewer says. "I tell them: 'Don't you like your stockholders? When you tear up the country, it costs you money.' I find that when I talk that way, it gets close to their hearts."

The oil companies and TAPS have conducted environmental studies of their own and have also been supporting some studies at the University of Alaksa, which for a small institution carries on a surprising amount of research. For example, TAPS is sponsoring a study by the university's Institute of Arctic Biology on methods of revegetating tundra that has been disturbed by engineering operations. "They want quick answers, but unfortunately there are none," Peter Morrison, director of the institute, told an interviewer last summer. "Frankly, I'm not too happy with this kind of research."

Despite all the unanswered questions about hot pipelines and permafrost, the restoring of tundra, and other things, construction of the pipeline is virtually certain to be allowed, and reasonably soon. The momentum of the North Slope development is irresistible. In fact, on 13 August, Secretary Hickel granted the state an exception to the land freeze so that TAPS could build a road quickly from Livengood to the Yukon River. This winter, pipe and other materials will be shipped north and moved across the Yukon over an ice bridge during the freeze-up.

In an effort to respond to the challenge in Alaska, the Department of the Interior is assigning 130 additional personnel there to improve its research, supervisory, and other capabilities. Close federal and state supervision of the oil development would appear to be the minimum environmental safeguard that the public has a right to expect. But, ideally, one might have wished for more—for a program of environmental studies, land classification, and risk analysis *preceding* the oil development, rather than following or accompanying it. Although Alaska still has vast wilderness areas, the oil rush promises to be an open-ended thing which, unless carefully controlled, may deprive the state's inhabitants of much of the beauty, the abundant wildlife, and the sense of freedom and uncluttered spaciousness that makes Alaska attractive to them.

Last March in a talk given at a Sierra Club wilderness conference in San Francisco, George Rogers noted that the aboriginal Eskimos and Indians of Alaska could have had no concept of either wilderness or development. These peoples were not separate from nature but a part of it. They were not manipulators, and the best they could do was to accept nature as they found it and adapt to it. The coming of the "European-American colonists" changed all this. The self-sufficient and limited economy of the aboriginal people was disrupted because it depended upon an interaction of all things in the environment, whereas the exploitative economy of the white man did not.

In the Alaskan arctic, Rogers said, wilderness must be made a part of development and not just in a token way with bits of tundra preserved as museum pieces. If Alaskans, he concluded, can realize the importance of wilderness as something that enters into their whole life stream, and not something to be exploited or preserved off in a corner for its own sake, then Alaska may become what Alaskans want it to become.—LUTHER J. CARTER

Nobel Symposium: Super Bowl of the World Conference Circuit

Stockholm. The prestige of the Nobel Foundation is such that, when it beckons, few decline, even when beckoned to spend a week discussing "The Place of Value in a World of Facts." And so they were here, from 15 to 20 September—35 certifiably accomplished scholars from 18 countries and at least as many disciplines—for a sort of Super Bowl of the international symposia circuit. Altogether a most improbable collection, including W. H. Auden, the poet; Glenn Seaborg, chairman of the U.S. Atomic Energy Commission; Arthur Koestler, the author; Joshua Lederberg and Linus Pauling, both of Stanford; C. A. Doxiadis, the city planner; Konrad Lorenz, of *On Aggression* fame; Margaret Mead, the anthropologist; Harrison Brown, of Caltech; Jerome Bruner, the Harvard psychologist; Mikhail D. Millionshchikov, vice president of the Soviet Academy of Sciences; Harold D. Lasswell, the Yale political scientist; and John Pierce, of Bell Labs. And then there was a handpicked contingent of eight students, present, according to an official announcement, "as a practical measure towards bridging the generation gap." As politically aroused students go these days, they were a pretty tame collection, though possibly in response to being egged on by the daily press, which had come a long way to find little to write about, the students distributed buttons proclaiming "I Am A World Citizen." Accompanying these was a statement to the effect that wearing of the button signified opposition to "research for direct military purposes. . . ." as well as opposition to "all wars that are supported by the idea of defense." To which the statement added, "A different thing is when oppressed people for their mere survival take to arms." About half the participants wore the buttons. Some were quite euphoric about the symposium. Koestler, for example, came out of one session declaring that "it was the best discussion I have ever attended," though he expressed annoyance at the seeming reverence shown "students with half-baked ideas." An American from a major university said he was certain he could "whip up a better discussion of values among the juniors on my campus."

However, just what happened when all the participants and students got together is not altogether clear, since the plenary sessions were closed to outsiders, though each session was followed by a press conference at which a spokesman summarized the discussions. ("Professor Pauling spoke of the vast waste of resources today. Dr. Seaborg called for concerted intellectual leadership to convince the political leadership of the desperation of the situation, but he also warned of anti-intellectualism.") The summaries were followed by a brief period at which questions

could be asked of those who had presented papers; copies or abstracts of the papers were also made available. And then everybody left, with the press, as well as a few participants, expressing puzzlement at what, if anything, was going on to warrant the presence in Stockholm of 35 very busy people from 18 countries.

At the conclusion, one of the organizers of the meeting approvingly said, "This has been a remarkable exercise in tolerance." This possibly cryptic utterance was followed by the issuance of a report which, among other things, stated, "The symposium achieved a high degree of communication and interaction between the participants. It should be the precursor of many other occasions of multidisciplinary study." More specifically, the report urged the rich nations to provide more help for the poor, and it warned against the dangers of nationalism, the arms race, uncontrolled population growth, and "politically opportunistic values." It also pointed out that "we may have to supplement traditional value systems with new axiomatic values analogous to the axioms of geometry. . . . While moral values cannot logically be termed true or false, they may be correct or incorrect. Apart from these fundamental difficulties, the actual value systems of our present world show marked variation, as illustrated by the generation gap at a time when young people are better informed than ever before."

On several afternoons the symposium moved from its headquarters, at a suburban country club and meeting center lent for the occasion by one of Sweden's major banks, to the downtown Swedish Academy, where public lectures were offered; these were well attended. At one of them, Gunnar Myrdal stated that assistance from the rich to the poor nations was actually declining, and that foreign-aid statistics were being inflated by the inclusion of sums from straight business transactions. Details on these and other matters could be found, he said, in two books of his that are to be published later this year. At another lecture, a member of the audience proclaimed that there is no generation gap and proceeded to a detailed attack on Joseph Alsop, the columnist, who was neither present nor under discussion. Jacques Monod of the Pasteur Institute, who was presiding, steered the discussion back to the matter at hand, which was discussion of a talk in which Konrad Lorenz advised young people, "Don't think that we are so stupid." He advised them that "we hate the establishment more than you do." Lorenz warned, however, "Don't let your high aims be discredited by neurotic behavior." Monod then announced the arrival of "a prepared happening," and a young Swedish man, accompanied by one of Stockholm's mass-produced blonde beauties, arrived at the lectern. While he occasionally tossed in a comment, she set about assailing fascism, scientists who work on military programs and space research rather than on "food research," and the division between the developed and underdeveloped nations. Then someone asked Margaret Mead whether reeducation was most needed by the young or by the old. "The old," she replied.

At the entrance to the Academy a young man distributed leaflets urging the adoption of Esperanto as the international language. Much literature was distributed in behalf of the establishment of a World University, which has been proposed by the World Academy of Arts and Sciences. In connection with this proposal, the eight students participating in the meeting were designated a "World University Study Group." W. H. Auden presented a poem to the symposium. Titled, "Ode to Terminus," it began:

The High Priests of telescopes and cyclotrons
keep making pronouncements about happenings
on scales too gigantic or dwarfish
to be noted by our native sense

And it concluded:

In this world our colossal immodesty
has plundered and poisoned, it is possible
You still might save us, who by now have
learned this: that scientists, to be truthful,
must remind us to take all they say as a
tall story, that abhorred in the Heav'ns are all
self-proclaimed poets who, to wow an
audience, utter some resonant lie.

The symposium was the 14th in a series that the Nobel Foundation has held since 1966, when it decided to seek a role beyond awarding the prizes for which it is renowned. The latest symposium, financed by a $35,000 grant from a special research fund established by the Commercial Bank of Sweden, was the first of the series that was not purely of a scientific nature. At its conclusion, the organizing committee, chaired by Arne Tiselius, a Nobel laureate in chemistry who is head of the Nobel Institute of the Royal Swedish Academy of Sciences, apparently was quite pleased with the outcome, for it announced that it would ask the Nobel Foundation to sponsor additional conferences. These, it was stated, might be concerned with such topics as "(1) Possibilities of emergence of new viral diseases and the need for threat-monitoring systems. (2) Unsuspected varieties in the nutritional requirements of people in different environments or having different genetic endowments. (3) Anticipation of and means to buffer the shocks of new technology. (4) Application of new knowledge of molecular biology for the development of new crops adapted to areas now unsuitable for cultivation, or with new nutritional values."

Proceedings of the just-concluded symposium will be published by John Wiley & Sons, New York and London.

—D. S. GREENBERG

RECENT DEATHS

Paul M. Aggeler, 57; professor of medicine, University of California San Francisco Medical Center; 1 September.

Joseph E. Campbell, 44; chief pathologist and director of laboratories, Office of the Medical Examiner of the city of Philadelphia, Pa.; 23 August.

Lester E. Erwin, 69; associate professor of biology, Kansas State University, Manhattan; 3 September.

Vernon D. Foltz, 64; professor of biology, Kansas City University; 15 September.

Robert W. Johnson, 78; former professor of orthopedic surgery, Johns Hopkins University; 24 September.

Julian A. Lipman, 52; president and founder of the Chemiquip Company, New York; 3 August.

Fairfield Osborn, 82; former president, New York Zoological Society and former president, Conservation Foundation; 16 September.

Lloyd H. Reyerson, 76; former dean, chemistry department, University of Minnesota; 7 September.

Isaiah L. Sharfman, 83; political scientist and professor emeritus of economics, University of Michigan; 9 September.

Carl J. Shipek, 52; oceanographer, Ocean Sciences Department, Naval Undersea Research and Development Center, San Diego; 7 September.

Kenichi Watanabe, 56; professor of physics, University of Hawaii; 15 August.