

fects on research. The question of unnecessary duplication of facilities was raised, in the case of PETRA, by the German big science advisory committee which urged DESY to explore international financing and ways to minimize overlap with the Stanford project. But as one respected scientist in the Federal Republic said, West Germany has just missed the boat in a number of key scientific areas, and the committee apparently did not want to see that happen with storage ring physics. Since it insisted that the recommended negotiations should not change either the design or the timetable of PETRA, the committee's admonition appears to have little force.

At the present time, both Stanford and DESY have smaller 4-Gev electron storage rings, with circumferences of a few hundred meters or less. Until the PETRA ring is completed, the two smaller storage rings will be the paramount facilities for studying the perplexing discoveries that have resulted from electron physics, including the new ψ or J particles that were discovered last year. Stanford did an experiment that hinted at new surprises in 1973, discovered the ψ particle at the same time as the U.S. Brookhaven laboratory, which named it J , and subsequently found two more re-

lated particles. But after the initial round of dazzling discoveries, DESY is proving more adept at the experiments that sort out the various possible explanations of the new phenomena (the favorite one is called the charm hypothesis).

Visits to the two laboratories make it clear that even now they are not competing on equal financial terms. Whereas Stanford has one magnetic particle detector to use in conjunction with the storage rings, DESY has three large magnetic devices, one like that at Stanford and two others that are more sophisticated. Such elaborate experiments generally cost \$2 to \$4 million each. According to William Wallenmeyer, at the high energy physics office of the Energy Research and Development Administration (ERDA), "The West Germans have spent three or four times as much money at the DESY storage rings as we have at Stanford, and I think it is amazing that the people at Stanford have been able to compete so well."

In the more conventional area of research with proton accelerators, which has been eclipsed by the research with electron machines but has by no means lost its intellectual appeal, the disparity between the American and European expenditures is even greater. The annual budget for

CERN, \$245 million in 1975, is more than the budget for all the U.S. accelerators together. In 1975, the CERN budget provided \$155 million for operating funds and the rest for completion of the super proton synchrotron, which will be a 400-Gev accelerator. The operating funds for the three proton accelerators in the United States, including the 400-Gev one at Fermilab, is only about \$90 million. For all high energy physics activities, both national and international, the annual European expenditure is approximately double the American budget of \$175 million. If such a funding differential continues, there is little doubt that CERN and PETRA together will represent research capabilities in the 1980's that the United States will hardly be able to match.

On the other hand, if Stanford is successful in pushing its storage ring appropriations through Congress quickly, the European lead may be held to a minimum. But even a small advantage could be a big benefit. As stated in the monthly magazine of the high energy community, the *CERN Courier*, "The new particle discoveries hold out the tantalising prospect that the first of the [storage ring] machines to come into operation could cream off some spectacular physics."—WILLIAM D. METZ

Habitat: U.N. Conference to Face Crises in Human Settlements

Throughout the world, but particularly in Asian and South American nations, the rural poor are rushing to cities like lemmings to the sea. And the cities cannot cope with them. In phenomenal numbers, landless peasants are becoming landless squatters on the edges of the world's metropolises. In 1950, there were only 16 cities with populations of 1 million persons in developing countries. By the year 2000, there may be 200 cities in the teeming million person club. Two-thirds of all the people on earth will be crammed into cities. Concern over imminent worldwide urbanization lies behind an international conference on human settlements that is scheduled to take place in Vancouver, Canada, next spring. Called "Habitat," the conference is intended to be a "happening," a "consciousness-raising" event that will alert governments all over the world to

the impending crisis of cities and the urgent need for planning of human settlements. Habitat is meant not only to instill awareness of the problem but also to offer solutions that nations might adapt to their individual needs.

Habitat is only 6 months away—and it is in trouble, both in Canada which is supposed to be its host and in the United States which is expected to make a major contribution to the proceedings.

In the first place, Habitat, a consciousness-raising event, is hardly part of the public consciousness. Indeed, it is hard to find anyone who even knows what the term means, other than individuals who are directly or indirectly involved in its preparation. In the second place, those participants or would-be participants who do have Habitat on their minds are not exactly happy about the way preparations

are going. Margaret Mead, for example, a leader of "Non-Governmental Organizations" associated with Habitat, recently declared that the "preparation of the United States government for its role in the conference is nil, just plain nil."

And, on 25 November, the possibility that Habitat will be called off, or at least moved from Canada, was raised when the Vancouver City Council, at a late evening meeting, voted ten to one against hosting the conference because members of the Palestine Liberation Organization are planning to attend (see box, p. 1182).

Habitat is one of a series of U.N. conferences that have been held during the past few years to discuss global problems related to the future of human life. There have been conferences on population, women, food, and the environment. Habitat is a child of the 1972 conference on the environment that was held in Stockholm, which emphasized the natural environment and sought international cooperation for its protection. Habitat is meant to extend the Stockholm agenda and focus on the human environment. The U.N. describes Habitat, or the notion of human settlements, as an "exciting new concept. . . . It means the totality of the human community—whether the city, town, or village—

Vancouver Votes Against Habitat

Habitat may soon find itself without a home. The city of Vancouver has made it plain that it does not want any part of the United Nations conference on human settlements. On 25 November, the city council voted ten to one to withdraw its invitation to host the international gathering scheduled for next spring. Its action is ironic proof of one of the themes of Habitat—that in the present world, everything is related to everything else. Vancouver's desire to withdraw from Habitat is related to the recent U.N. resolution equating Zionism with racism and to fear that Habitat, if held, will be plagued by terrorists from the Palestine Liberation Organization (PLO). In addition, council members have condemned Habitat as being "costly" and a "waste of time."

Ever since the U.N. resolution was passed, Jewish groups in Canada have been calling on the government to back out of the conference as a matter of principle. Their pressure puts Canada's official host for Habitat, Barney Danson, Minister of State for Urban Affairs, in a particularly difficult position. Danson is the only Jewish member of the Canadian cabinet. His present position is that the meeting will take place as planned. Canada has an "obligation to host the conference under the rules approved by the United Nations and will do so," he has said. But the matter may not be that easily settled.

Antipathy toward the U.N. because of the Zionism resolution and fear of terrorists apparently is strong in Canada. Vancouver mayor Art Phillips is quoted as saying that the resolution "changed the ballgame" as far as his city is concerned. Vancouver is refusing to vote any funds to support the conference and is particularly concerned about what it would cost to provide the kind of police protection necessary to cope with anticipated terrorists.

Canada already is preparing for possible terrorists from the PLO or other organizations that might make the 1976 Olympics in Montreal a target for violence. Security forces numbering 13,000 persons will not only patrol Montreal but also the surrounding area down to the U.S.-Canadian border. The cost of this security has been estimated to be \$25 million or more. And one Canadian official has quipped publicly that while the army is guarding Montreal, terrorists "could seize Vancouver and no one could stop them."

The citizens of Vancouver obviously do not want their city to become a target for terrorists. A tangential consideration that has been raised with respect to Habitat is that Canada might be forced to cancel the Olympics were terrorists to strike in Vancouver. (Habitat is scheduled to open on 31 May; the Olympics on 17 July.) Better cancel Habitat than jeopardize the Olympics, some say.

Jewish groups and others have suggested that one solution to the problem with respect both to politics and to possible terrorism would be not to invite the PLO to Habitat. However, as Ian Jackson, executive director of the Canadian Participation Secretariat, explains, the government cannot do that because Habitat is a U.N., not a Canadian, conference. If the PLO is acceptable to the U.N., it cannot be kept out of a U.N. meeting by Canada. The Canadian position is that "the PLO will be admitted, terrorists will not be."

Canada has had prior experience in withdrawing from a U.N. conference because of the PLO. Last summer the governments of Toronto and the province of Ontario forced the federal government to ask for postponement of a U.N. conference on crime that was scheduled to take place in Toronto in September. The reason was that the PLO planned to participate. To Canada's embarrassment, the U.N. refused to postpone the crime conference and simply moved it to Geneva instead. Some observers see the crime conference as a precedent for Canadian withdrawal from U.N. obligations; others believe the experience will make the government all the more intent on hosting Habitat. In September, before the present confrontation arose, Canada went out of its way to assure the U.N. that it was ready to "discharge its obligations" for hosting Habitat under the rules that normally apply to U.N. conferences.

Just what happens now is unclear. For example, persons in Vancouver and in the federal government in Ottawa are not certain who has final legal authority in the matter. Can Ottawa force Vancouver to host Habitat whether it wants to or not? If so, must Ottawa pay the full bill? While these and other questions are being negotiated, one thing seems certain. If Habitat does take place, it is going to be a meeting plagued by protesters.—B.J.C.

with all the social, material, organizational, spiritual, and cultural elements that sustain it."

Yet there is a tendency, even among the cognoscenti, to think of Habitat as a word that refers to a home and to regard the Habitat conference as a meeting about housing. While it is true that the Habitat agenda (still in preparation) will include a great deal of discussion about housing, conference leaders insist the whole point of the meeting is to make people understand that housing is related to everything else—that one should no longer talk about housing and transportation and energy and land use and social services as separate, detachable items. It is, apparently, a difficult concept to get across.

British author Barbara Ward (Lady Jackson), one of the leading spirits behind Habitat, grapples with the concept in the introduction to a yet unfinished book she is writing in preparation for the conference. (Ward is president of the International Institute for Environment and Development, which has commissioned several papers meant to discuss solutions to specific problems in preparation for Habitat.) Her book, *The Home of Man*, begins, "There are two reasons why it is exceedingly difficult to get a coherent grip on the issue of human habitat. . . . The first reason is that this habitat includes everything. . . . The second reason is even more daunting. At no time in human history has the man-made environment of life been in such a state of convulsed and complete crisis."

Ward's point was painfully borne out recently at a symposium in Washington, D.C., at which Margaret Mead tried to express the breadth of meaning of Habitat. Her forum was a meeting called "To Shelter Humanity—a Prelude to Habitat" that was cosponsored by the American University School of International Service and the International Development Conference. Speaking from the pulpit of a gothic church across the street from the American University (A.U.) campus, Mead declared over and over again that "Habitat is not a conference about housing," in tones that made "housing" sound like an impolite word. She spoke of the need to see urban centers and rural towns as a "continuum," and deplored the "fragmentation" that mars most contemporary efforts to deal with problems of human settlements. She spoke passionately of the need to think of human communities in their entirety; you cannot (or should not) think of housing without thinking of water and roads and land and energy and all of the social and cultural aspects of life. And when she was done, she took questions from the floor. "Dr. Mead," asked one questioner, "you mentioned so many things, why did

you leave out health.” “Of course, health is important,” Mead snapped at her fragmented questioner. “Do I have to list everything every time?” Apparently, yes. People think in terms of their special fragments.

If fragmentation of approach is one problem, the very breadth of Habitat is another and Mead spoke of it with respect to Habitat’s lack of active constituents. “A problem that is not properly recognized,” she said, “is that we don’t have large numbers of people who care.” She pointed out that at the U.N. conferences on food and population and environment, for instance, people knew about and cared about the issues. Not so with Habitat. The conference is intended to be geared toward solutions but, Mead observed, there is not much evidence that the people who implement solutions will be there. “Where,” she asked, “are the builders? Builders build buildings and roads, not bureaucrats and politicians. Builders should be part of Habitat.”

The question of who should be part of Habitat, and how, was one that dominated many discussions at the A.U. symposium and subsequent interviews with persons taking an active interest in Habitat’s preparation. Actually, there will be two Habitats. One will be the official conference to which governments will send delegations. The second Habitat, to take place in Vancouver at the same time as the official conference, is known as Habitat Forum and is a gathering of nongovernmental organizations (NGOs)—organizations that have official status as accredited observers to the U.N. and include such groups as Zero Population Growth, the Audubon Society, the Environmental Forum, and the International Institute for Environment and Development. It is the NGOs that are complaining most about U.S. preparation for Habitat, largely because they feel they are being left out.

One aspect of U.S. participation in Habitat that has made the NGOs particularly unhappy has to do with what is called our “national report.” Habitat requests each government to prepare a report on its national problems with human settlements and its approaches to solving them. The NGOs see in this a golden opportunity for government and citizens groups to get together to produce a first-rate analysis of the situation in the United States. Instead, the Department of State, which is coordinating U.S. participation, is planning to submit an updated version of a biannual report that the Department of Housing and Urban Development (HUD) has been writing for Congress since 1970.

The NGOs have been lobbying for a fresh report and, inasmuch as they feel they have real expertise on issues such as

land use, population growth, and energy, they have been calling for public meetings at which they can be heard. But they have had to settle for regional meetings—held in late October and early November on very short notice—on the updated HUD report—the 1976 Report on National Growth and Development.*

Last August, the Environment Forum wrote to the Department of State and the U.S. advisory committee on Habitat to state its “conviction” that the growth report, “however updated to 1976 it might be, is inappropriate and unacceptable as a substitute for an official United States National Report to the Habitat Conference.” The forum particularly objects to use of the growth report in light of the fact that the government is going to spend about \$600,000 on it. “If that amount of money or any amount of money is available, it is all the more inexcusable to propose using a routine domestic report of limited scope.” The forum said the report was “not in keeping with the dignity of the nation.”

Although the 1976 growth report has yet to be completed, a reading of the 1974 report tells why the NGOs would like to see the United States prepare a separate national report for Habitat. The 1974 report is an optimistic little document some 100 pages long that is utterly devoid of specific recommendations about planning policy. Apparently the original draft of the report contained 128 recommendations that were deleted somewhere along the way. Instead, the sterling 1974 document tells us right off that “However the individual may define quality of life . . . he would have to conclude that life has generally improved in quality.” In case you are not sure how to measure quality, the report offers this definition. “People share a common interest in the quality and privacy of their housing, in being able to drive the highways of their country or walk the streets of their cities without fear. People want readily available and affordable health services. They want equal access to job opportunities which offer fulfillment. They want a chance to improve their lot through education, and they want free time to enjoy the pleasures of an affluent society.” According to the government, life has improved in these regards during the past few years. According to the NGOs, the United States would look pretty silly taking such a position before the world.

Habitat, if it comes off, is meant to put aside cosmetic rhetoric and address problems squarely. Whether that will happen, of course, remains to be seen, but it ap-

pears that Secretary General Penalosa is doing his best to set a realistic tone to the proceedings. Speaking at the A.U. symposium, Penalosa talks about the possible, not the ideal. Referring to future policy recommendations from Habitat, he said, “We may have to foster substandard housing because it is better than subhuman,” and pointed out that many of the things Westerners consider “standard” simply are more than the governments of developing nations can afford. “It is absurd,” he said, for example, “to think that the Indian government can provide a two-room house for every family” or that every dwelling in a developing country can be expected to have running water. One solution to world problems, Penalosa suggested, “may lie in scaled down expectations. If we cannot bring water to every home, maybe we can bring it to every community. If we can’t bring doctors, maybe we can bring paramedics.”

The “solutions” side of the Habitat conference is designed in part to address this kind of problem by creating a showcase in which governments can show what they and their people have done for themselves. Considerable emphasis is being placed on audiovisual presentations at Habitat that are meant to show specific examples of solutions (or attempted but unsuccessful solutions) to specific problems. More than 100 nations are preparing 230 films and slide shows that are meant to be an integral part of the conference, not just a minor distraction as the exhibitions at scientific conferences so often are. The point is to inform nations about what others are doing in the hope that someone will learn something useful and applicable back home.

—BARBARA J. CULLITON

RECENT DEATHS

Herbert M. Bergamini, 85; former associate professor of traumatic surgery, Columbia University; 23 October.

Raymond T. Carhart, 63; head of audiology, communicative disorders department, School of Speech, Northwestern University; 2 October.

William B. Kouwenhoven, 89; professor emeritus of engineering, Johns Hopkins University; 10 November.

Alfred Lande, 86; professor emeritus of theoretical physics, Ohio State University; 30 October.

Oliver C. Lockhart, 96; former professor of economics, Ohio State University; 28 October.

Stanley G. Palmer, 88; former dean of engineering, University of Nevada, Reno; 31 October.

*The Report on National Growth and Development, required by a 1970 law, is prepared by the Department of Housing and Urban Development under the direction of a committee of the Domestic Council.