SCIENCE

4 June 1976

Volume 192, No. 4243

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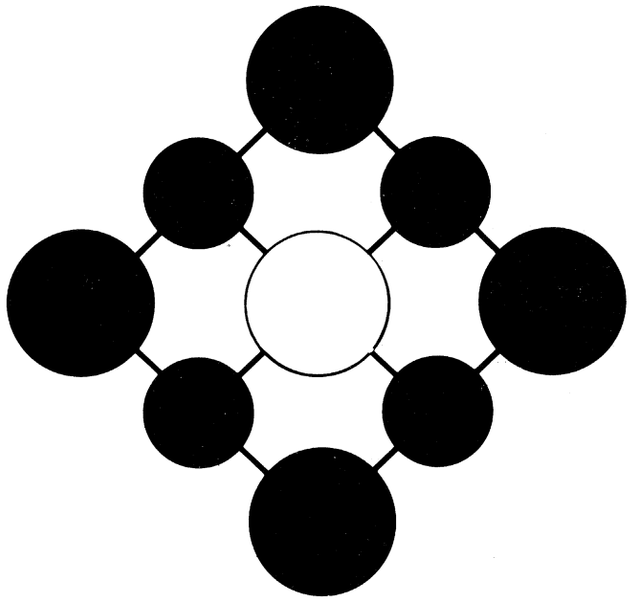
Habitat

The United Nations Conference on Human Settlements—Habitat—convened in Vancouver on 31 May and brings to a head many of the substantive, "nonconventional diplomatic initiatives" which have resulted from the United Nations conferences on the environment, population, food and hunger, and the law of the sea. These pressing concerns are brought into focus in the problems of our cities, towns, and hamlets, where human beings relate to or destroy the environment which they share with other living things, nurture their children, modulate their population growth, till their soil, craft their tools and utensils, and provide generational transmission of emerging life-styles to those born there and to the strangers within their gates.

Habitat will emphasize the necessity of considering together all forms of human settlement from the rudest hut to skyscrapers, as people bred in one move to another, fleeing poverty in the countryside to a different kind of poverty in the swollen cities. They leave behind the tried ways of their ancestors to live in jumbled anonymity and low civic participation in cities which are increasingly dominated by the automobile, mass-produced goods, and internationally propagated building styles unrelated to local environments and basic or culturally specific human needs. As old cities decay before the onslaught of penniless millions—refugees from poverty, relentless population growth, civil disorder, war and massacre—new cities, jerry-built and inhuman, spring up, designed sometimes half a world away from those who will live in them. The pollution, poverty, and overcrowding in our cities and the relative and real deprivation in the countryside, perpetuated by large-scale exploitation of raw materials, together dramatize the contemporary problems of reconciling planning and freedom, human well-being, and the enhancement of profit, power, and prestige. In the economic realm of city planning, "housing" is often relegated to the status of a consumer item—an unfortunate necessity (associated with groups of people assembled for purposes of defense, offense, or production).

The problems are global. The participants, representing 140 governments and some 400 nongovernmental organizations, will have to struggle with the crucial question of scale: how to provide a framework within which aspirations for the human condition can be translated into continental planning for resource use and utility corridors and national policies for land use, yet leave towns and neighborhoods the autonomy necessary to adapt internationally developed designs to the needs of these smaller units. At present almost every aspect of human settlement planning is on the wrong scale.

The need for innovative economizing is greatest in the developing countries because of the magnitude of the problem and the scarcity of resources. But there is a complementary need in the industrialized countries—a need for energy conservation, the elimination of wasteful use of irreplaceable resources and pollution, and the redesign of our urban systems from deteriorated inner cities and isolating suburbs. The United States is conspicuous for the technical know-how which we can assemble when faced with war, and equally conspicuous for our laissez-faire abandonment of our cities and those who live within them. Americans should have much to offer and to learn as the Conference struggles with the task of viewing human settlement as a global system, analyzable by computers which can handle hundreds of variables, but responsible to the residents' historically developed sense of space, time, and community. Each settlement can be a poorly differentiated segment or a microcosm of the whole, fostering divisiveness or global responsibility.—MARGARET MEAD, *Curator Emeritus of Ethnology, American Museum of Natural History, New York 10024,* and *Chairman of the Board, AAAS*



A New World of

Materials:

Renewable and Nonrenewable Resources

Edited by
Philip H. Abelson
and Allen L. Hammond

An important exploration of the new set of realities affecting the flow of raw materials—a probing of the increasing demand for them and the obstacles to their discovery and production.

A reliable flow of raw materials has been the fundamental factor in the health of the American economy and of the economies of all other industrial nations. While economic growth has begun once again in the United States and, more slowly, in Europe, it is predicated on a whole new reality of materials dramatically different from that of a decade ago. No longer can an abundance of basic commodities be taken for granted, and no longer can the supplying of any commodity be assumed continual. We have learned that the flow of existing materials is vulnerable to interruption by financial shifts, increased nationalization of foreign-owned properties, restriction of access to resources on public lands, and a host of other considerations born of the 1970's. In the development of substitute materials we must hurdle these obstacles and also adhere to new regulations for environmental protection.

In February 1976 *Science* devoted an entire issue to a critical in-depth look at these and related problems. The special issue contained 24 papers written by some of the country's foremost authorities. Thirteen more articles created by other, equally distinguished authors were added to the list, and the total is being published as a compendium to provide a meticulous look at *Materials: Renewable and Nonrenewable Resources.*

The compendium's authors probe the implications of national policy, energy constraints, environmental considerations on materials production and use, the perspectives in needs and supplies of resources, high technology materials, and renewable and reusable resources. They examine those materials issues most vital to industrial economics, the future of materials research, and the effect of the new realities on the quality of life.

The result is rare and refreshing—a detailed study which yields an identification of critical problems as well as the authors' consensus that, in principle, these problems are solvable. This overview must be studied by those involved in materials problems today, by those reaching for answers, and by all of us who will benefit from the solutions. Don't miss this vital collection of papers. A brief sampling of the compendium's contents reveals the importance of studying and dealing with these new realities.

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