Examples from Abroad

Planned Urban Environments. Sweden, Finland, Israel, The Netherlands, France. Ann Louise Strong. Johns Hopkins Press, Baltimore, 1971. xxxiv, 406 pp., illus. $20.

"Planning," "urban," and "environment" denote concepts of immense importance in the United States today, but, the author of this book argues in a fervent introduction, they have been important very much longer abroad:

> Our European forefathers shared a respect for this land and an awareness of man's interdependence with it; this sense of a bond between man and the land did not survive the sea voyage to the New World. Whereas harmony had been the goal there, the conquest of nature became the goal here. . . . Self-sufficiency and independence, not harmony and interdependence, were our models for behavior.
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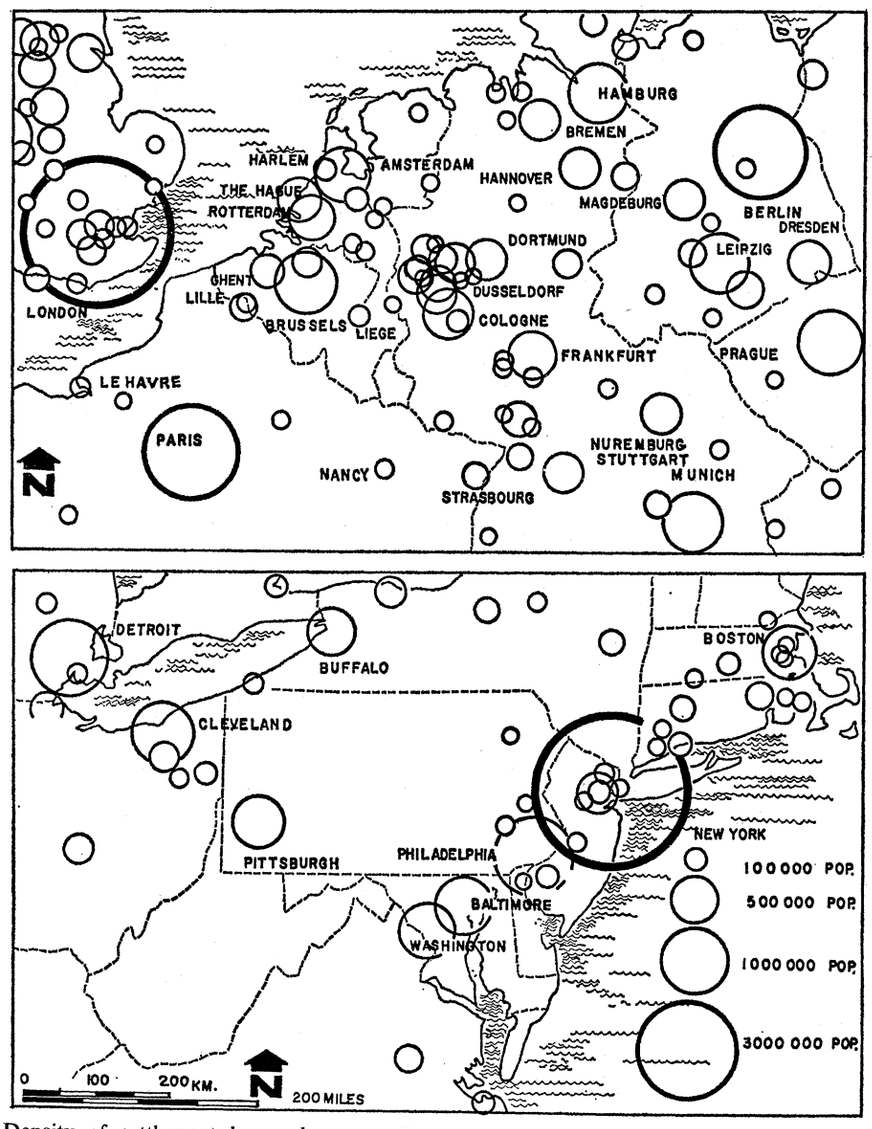
> Now that the effect of our depredation of the natural environment and neglect of our fellow men are writ so large as to be incontrovertible and inescapable, now that our frontier has in effect vanished and our urban areas are as densely packed as those of Europe, will we learn from those who have been less richly endowed than we?

Strong's view is that only by a major commitment to national environmental planning can our urban crisis be resolved, and her objective in this book is to describe the trials and lessons learned in physical and resource planning abroad, so that we may benefit from the experience and sophistication of others. The countries she has chosen for this purpose are Sweden, Finland, Israel, the Netherlands, and France.

In its field, the book is clearly a rare combination of contemporary social history, scholarship, and skilled writing. Though like a legal brief in its close wording and fine print, it is nonetheless highly readable, weaving narrative with commentary through separate sections on each of the five countries. Each section begins with a description of the "setting"—topography and natural resources, forms of government, sociocultural characteristics of the people, and economic base. Then an overview is presented of public policies for urban development, including the planning structure, political forces at work, and specific approaches to land acquisition, development control, and financing at national, regional, and local levels. The role of the private sector is discussed for Sweden, Israel, and Finland (but surprisingly not for France, where private activity is having enormous impact in altering postwar developmental patterns). Finally, examples of some outcomes of urban planning in each country are described—the satellite new communities ringing Stockholm, Helsinki's "garden suburb" Tapiola, Israel's public/private joint-venture, France's decentralization.

Unfortunately, despite all the detail, the encyclopedic scope, and the meticulous drafting, the author's objective is not reached. There is little analysis of the data and information that relates the European experience to our problems. Issues are raised that are critical in formulating our current policies, but these are not defined, much less resolved. The reader may ask but will find no answer to such questions as: Could the investment base for planned community development here be enlarged by means of the Finnish scheme of nonprofit welfare foundations funded by union pension plans, or the Israeli approach of enlisting foreign capital to support an individual new town project? How could the French scheme of channeling funds of local authorities through a quasi-public bank/development agency be applied here to provide an automatic pool of funds and substantial public control over new development serving social needs? How could the Swedish machinery for regional planning, dispersal, and satellite community development be applied in the United States?

Moreover, some of the data presented are no longer timely. Tapiola is described as it neared completion in 1965, but our need for knowledge about the problems *after* completion



Density of settlement in northwestern Europe and northeastern United States. [Reproduced in *Planned Urban Environments* from Jean Gottmann, *Megalopolis* (Twentieth Century Fund, New York, 1961)]

of the basic plan (1968–70) is much greater. Columbia, Maryland, and Reston, Virginia, already provide a bank of experience in the early phases of planned community development, but they are just beginning to face the growth pains Tapiola has endured. What is the role of public policy in dealing with conflicting pressures within a new town for expansion versus "zero" growth? What problems arise when a "completed" new town matures?

Where the author draws conclusions or offers judgments, the lack of sufficient analysis may fault them. For example, she acclaims the quality of French agriculture but does not evaluate its efficiency. Because France's agricultural system is one of the least efficient in Europe, Common Market resource planners now must analyze the trade-offs between French quality and efficiency; but Strong's judgment appears to be one-sided.

One speculates on the reasons for these deficiencies. In part they may arise from the original criteria for selecting countries to study—"variety, novelty, and achievement." The most important one, perhaps, is missing—*relevance*. The book lacks specific relevance to the U.S. scene. The reader is forced to draw it out for himself by asking "So what?" at the end of each chapter, hoping the linkages will occur to him. Another reason may be the lack of focus in the author's concept of "environmental planning." It seems to touch on planning for natural resources, housing, land use, transportation, and social services, but the reader is not given a systematic framework to interrelate these.

The book will probably be widely used as a basic text and a handy reference, and perhaps it will even influence those in today's classrooms who will formulate urban policy 20 years hence. But for today's policy makers and analysts grappling with problems of national urban growth, welfare, housing, and transportation, it is of marginal value. This is unfortunate, because many key policy makers are desperately searching for sound analysis and advice that can be of use now. If planners like Strong, with their knowledge of both old problems and new ideas, do not provide such specific guidance and analytic support, an unusual opportunity to exert a significant beneficial effect will be lost.

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The Universe: Some Facts to Go On

Physical Cosmology. P. J. E. PEEBLES. Princeton University Press, Princeton, N.J., 1971. xvi, 282 pp., illus. Paper, $9. Princeton Series in Physics.

Modern Cosmology. D. W. SCIAMA. Cambridge University Press, New York, 1971. viii, 212 pp., illus. $8.95.

Although great scientists from Newton to Einstein have dabbled in cosmology, it has until recently had a bad name among physicists. The observations were too sparse, the ratio of speculation to fact too great, for cosmology to be called a hard science. These two books try to convince us that a corner has been turned. Recent observational discoveries have yielded solid cosmological information, strongly constraining models.

This change of outlook is largely the result of radio astronomy. When men like Ryle emerged from radar laboratories after the war, they were looking for new fields to conquer. Turning their antennas toward the sky, they found radio waves from the sun, and soon thereafter they found them coming from distant astronomical objects. The second most powerful radio source after the sun proved to be not a nearby star or planet but a galaxy one-fourth as distant as the most distant galaxy observed optically up to that time. Following up Reber's prewar discovery of radio waves from the Milky Way, radio astronomers found a variety of sources both within and beyond the galaxy, all apparently radiating by the same mechanism—synchrotron radiation by relativistic electrons. Overnight, the new capability to observe relativistic particles at vast distances enlarged and challenged the old astronomy, which was based upon thermal radiation from stars and nebulae. The relativistic particles are accelerated in sources which comprise a world unknown to classical astronomers—a world of relativistic explosions, of radio galaxies and quasars, of pulsars and neutron stars.

Hubble's confirmation of Slipher's discovery of the red shifts of galaxies, and his own discovery in 1929 that red shifts are proportional to distance, had earlier shown that we live in a dynamic universe, for which the relativistic gravitational theory of Einstein yields a number of models. But prewar progress on the structure of the cosmos was stymied by the faintness of distant optical galaxies. It proved impossible for equipment then available to push out beyond a red shift $z = \Delta\lambda/\lambda$ (which for small z equals v/c) greater than 20 percent. As v is expected to approach c at the limits of the observable universe according to the relativistic models of Friedmann, such red shifts yield too small a sample of the universe to give us a handle on the global properties of the cosmos.

There things stood until the radio astronomers discovered quasars (QSO's) and their red shifts were determined optically. The largest quasar red shift discovered to date is 2.88 ($v = 0.87c$), and the end is not in sight. The extremely large red shifts of quasars stimulated the hope that they could be used as probes in choosing the correct model of the universe. They are so distant that radiation left them when the expanding universe was much younger and smaller. One should therefore be able to sample conditions at early times, and hence nail down the dynamics. Alas, this hope has been dashed by the fact that quasars have a huge range of luminosities, so that it is not yet possible to obtain an independent determination of their distance from their apparent brightness, as required in order to plot the expansion curve of the universe.

Again the radio astronomers came to the rescue, this time by finding the cosmic microwave background radiation. Discovered by chance in 1965 by Penzias and Wilson, this diffuse background has a spectrum at short radio wavelengths like that of a perfect thermal emitter at 2.7°K and is isotropic about the earth within 0.1 percent. It turned out that this effect had been predicted much earlier by Gamow on the basis of the radiation emitted by the primeval fireball in a hot big-bang universe. (Gamow's collaborators Alpher and Herman predicted $T \sim 5$°K in 1948.) This discovery more than any