The Urban Focus

Is there a common problem and method in studies of city development—a science of "urbanology"?

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During recent years there has been an understandable preoccupation with urban transformations. City planners are busy with the future, while scholars are seeking understandings of urban change from the past. The three books herein reviewed deal mainly with the early development of cities, but they exemplify the very unlike approaches of humanists, social scientists, natural scientists, and, if one can classify Lewis Mumford, of a philosopher, prophet, and urban reformer. Despite the differences in conceptualization of data and interpretation, there is reason to suppose that an emerging science of "urbanology" will find a common ground.

Gideon Sjoberg's **The Preindustrial City** (Free Press, Glencoe, Ill., 1960. 353 pp. $6.75) is a sociological analysis of cities within feudal or preindustrial societies throughout history. These cities are contrasted in all fundamentals with modern industrial cities, such as those delineated by the so-called Chicago school of urban sociology—Park, Burgess, McKenzie, and others. The preindustrial city first appeared in the Near East in predynastic times, when, owing to agricultural surpluses, the primitive folk society was transformed. It occurred under similar conditions in South Asia, the Far East, and the New World. It is represented today by such cities as Seoul, Peking, Timbuktu, Cairo, Mecca, and Fez. In all cases, its social institutions are so similar that it represents a single sociocultural type.

Lewis Mumford's **The City in History** (Harcourt, Brace and World, New York, 1961. 657 pp. $11.50) differs fundamentally from Sjoberg's volume in presenting a developmental interpretation rather than a cross-cultural analysis of synchronically conceived data. Its sequence starts with assembly places of Paleolithic men, leads into Neolithic villages, then traces urban centers through the periods of the early Near East, classical Greece and Rome, and the Middle Ages to the modern Western world. It largely omits cities that were not in the Near East-European tradition.

The City in History is written with tremendous erudition (though mainly limited to cities Mumford knows from personal observation), but it has speculative forays into the philosophical, moralistic, and even psychoanalytic. The basic theme is that, while cities are the "containers" of civilization and have brought people together in creative interaction, they also subject men to depersonalizing regimentation and occupational specialization. Above all, today, cities make men the creatures rather than the masters of technological development and expose them to mass extermination in nuclear warfare. Mumford's strong value orientation places him a little outside the primarily objective scholarship that characterizes the other two books.

City Invincible (Carl H. Kraeling and Robert M. Adams, Eds. University of Chicago Press, Chicago, Ill., 1960. 446 pp. $6) reports a symposium on urbanization and cultural development in the ancient Near East held at the Oriental Institute (University of Chicago) in December 1958. It differs from the preceding books in its multiple authorship and its interdisciplinary approach. The last 200 pages comprise 11 background papers, while the first 246 pages record three days of discussion by 50 participants and a concluding address by Lewis Mumford. More than half of the discussants are primarily humanists: classical archeologists, linguists, and historians of Egyptology, Assyriology, Hittitology, Biblical archeology, Hellenistic studies, and other specialties.

City Invincible covers some 6000 to 8000 years. It deals with the origins of plant and animal domestication and with the development of the first farm villages, towns, and city-states, as well as with the development of various Near Eastern, Grecian, and Roman empires. The emphasis is humanistic in that it focuses primarily upon the great achievements in art, literature, writing, architecture, religion, political institutions, law, and other aspects of culture that distinguished each period and local area. In this respect, it somewhat resembles *The City in History*, except that its subject matter embraces a shorter time span and that it lacks value judgments.

Antithetical Emphases

But the discussants in *City Invincible* also include some 15 social scientists, representing geography, anthropology, economics, social institutions, comparative law, and political philosophy. Whereas the humanists are interested in the distinguishing particulars of each culture—one even states that for their purposes differences between cultures, for example, between Egypt and Mesopotamia, are more important than similarities—the social scientists raise many questions concerning cross-cultural similarities of social structure, ideologies, and developmental processes, which imply the possibility of making interpretative generalizations. While some of the humanists doubt that cities occurred in ancient Egypt and state that the dynasties appeared full-blown without a stage of city-states, Hoselitz, an economist, points out that the existences of cities is a matter of definition in terms of size, plan, and function. Such definitions might have heuristic value in understanding the development of any city.

Again, whereas the humanists contrast religious ideology and world view, especially as between Egypt and Mesopotamia, an anthropologist, Clyde Kluckhohn, outlines possible similarities in the functions of the moral order in any expanding society, that is, developing cities and states. Similarly, Milton Singer suggests a number of processes of urbanization and cultural development which he and Robert Red-

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field had previously postulated to have cross-cultural validity. While the social scientists' interest in generalizations somewhat offsets the humanists' particularism, these generalizations remain largely implicit and are far more tentative and limited in scope than those of Sjoberg, who unhesitatingly presents a long list of the characteristics of *all* preindustrial cities. The symposium also includes three "dirt" archeologists who contribute data on the prehistory of the Near East and New World.

City Invincible and *The City in History* accord little attention to cultures other than those antecedent to the modern Western World. But in *City Invincible* the New World archeologist, Gordon Willey, describes the tropical forest agriculture and the ceremonial centers and dispersed settlements of Meso-America and the irrigation farming and more nucleated settlements of Peru. This New World farming contrasts with that of the Near East, but it is not a difference in humanistic or stylistic emphasis. That the largest irrigation systems of Mesopotamia followed state development is evidently a function of the intertwining network of river channels, which obviated the need for state planning up to a certain point. In the deep valleys of Peru, expansion of irrigation, increase of farm production, demographic growth, and the development of communities, cities, and states seem to have been more synchronized.

Equivocal Status

Some of the differences between the books are purely a matter of semantics. Sjoberg, while conceding that Meso-America had preindustrial cities, disclaims a similar development in Peru on the grounds that the latter had no writing. To exclude Chanchan, a prehistoric Peruvian city consisting of a square mile of carefully planned streets, house clusters, temples, gardens, and other features within an enclosing wall, seems arbitrary, and to ignore the great Inca Empire, which extended from Ecuador to Chile, is to omit one of the world's great preindustrial societies. The Oriental Institute symposium also debated whether writing is an essential feature of civilization and therefore whether the culture of Jericho, which lacked writing, ranked as civilized.

More fundamental differences involve the question of whether similarities between cultures should be interpreted as independent invention or diffusion—a long-standing problem of anthropology. The humanists so emphasize distinctiveness of achievement that the problem does not arise, although they recognize that very general ideas, such as writing, may have spread through the Near East and beyond. Sjoberg, by contrast, assumes that all cases of preindustrial cities represent the independent operation of similar processes. He is aware of stylistic differences, but he observes that these can be better assessed after the structural-functional similarities have been delineated (page 21).

Mumford appears to be an out-and-out diffusionist. He is so impressed by the similarities between native American and ancient Near Eastern cities that, despite the abundant archeological evidence supporting a theory of indigenous development of New World cities and civilizations—evidence of which he appears uninformed—he cannot believe that these two centers could have developed independently. He asks, "Was this New World urban complex due to an original predisposition toward urban life carried in the genes? Or is it an instance of a Jungian collective archetype, transmitted even more mysteriously? Or is the New World urban complex the result of an astonishing conspiracy of accidents whose ultimate convergence with those of the Old World would be nothing short of a miracle?" He concludes that somehow the fundamentals of cities diffused to native America from the Old World, but he offers no theory about how this was accomplished. Thus, three wholly different conclusions are drawn from the same data. The humanists see no problem of diffusion or independent operation of process. Mumford, on the contrary, considers the two hemispheres to be so identical that diffusion is the only conceivable explanation. Sjoberg is also impressed by the identities between the Old and New Worlds but interprets them as instances of independent urban development.

Common Denominator

A science of urbanology might start with the position of Sjoberg which constitutes an important advance over that of the Chicago urban sociologists, in that it adds a second type of city, the preindustrial city, to the industrial city. All preindustrial cities are said to be characterized by a distinctive complex of interrelated phenomena. Their agrarian base affords a food surplus which supports a superordinate ruling class, bureaucrats, and many specialists. The upper class is hereditary, it controls the state through theocratic sanctions and military power; it exacts tribute from the peasants, receives luxury items produced by craft specialists living in the cities, commandeers produce from surrounding areas and trade routes, and has complete authority over the lower class and outcaste groups. It maintains status through conspicuous consumption, is trained in literacy in special schools (this was probably a rare trait), and practices arranged marriages. Men are dominant, women remaining in the background. Lower-class artisans are organized in kin-based guilds, they live in special barrios in the cities, and they market their goods without fixed prices. The lower class culture is a "culture of poverty," as Oscar Lewis describes it.

Such characterization of the preindustrial society and its cities is unquestionably significant in contrast with the folk society and with the industrial society. Many of the distinguishing particulars highlighted by the humanists may be functionally similar in different societies despite stylization. In the case of writing, for example, it is less important whether the script is cuneiform, Mayan or Egyptian hieroglyphic, or alphabetic than whether it serves to record produce, taxes, historic events, or other matters which are important to societies that have structural similarities. Monumental architecture may also differ stylistically yet serve to house the ruling classes and the theocratic apparatus which supports the state.

Urbanology's Subcategories

Not all the dissimilarities stressed by the humanists, however, can be written off as mere distinctive stylistic embellishments. For example, *City Invincible* paid some attention to multiple societies, that is, states and empires—and even cities—which consisted of diverse ethnic, racial, linguistic, and religious groups. A broader comparative study of such diversity together with more detailed analysis of the nature of peasants, chattel slaves, outcastes as in India and Japan (the Eta), and classes

of artisans, priests, and bureaucrats would go far toward defining the composition and structure of societies. Differences between cities which are dispersed around ceremonial centers and those which are concentrated within walls certainly also have implications for social structure. Differences between traditional village laws and nationally codified laws and between the role of money, markets, and commerce are also matters discussed at the Oriental Institute symposium, but not viewed in cross-cultural perspective. All of these matters, however, constitute important variables within the great category of "preindustrial city," and they will require division of this category into several major subcategories.

The problem of urbanology, then, may have a middle ground concerning the meaning of cross-cultural similarities. There are more types of society than Sjoberg's folk, feudal, and industrial, but each type is not necessarily unique. The many varieties of Near Eastern cultures discussed in *City Invincible* and *The City in History* exemplify the operation of different processes and their culminations in unlike types in major developmental periods. Mesopotamia seems to have developed farm villages, towns, city-states, and then states, whereas Egypt amalgamated its farm villages very rapidly into large political units without clear intervening stages. Comparison of these with the types of sociopolitical structures that developed in India, the Far East, and native America would lay an empirical basis for a more solid taxonomy of societies and cultures.

The methodological point is that one may start with a high order of generalization, as in Sjoberg's study, or with stress upon distinguishing particulars, as in much of *City Invincible*, or with intermediate levels of generalization. The main obstacle to broadening the humanists' approach is that they so often see cultural achievements as unique expressions of man's creativity which are not subject to causal formulation that they are reluctant to proceed from the particular to the general.

Owing to the humanists' lack of interest in a comparative method and the sociologists' general indifference to history, some very fundamental problems are not squarely faced. Cities are described as the loci of state rulers, priests, bureaucrats, artisans, merchants, and other special groups which appeared only after agriculture afforded a surplus. But no one has postulated why the farm population was willing to surrender its surplus to the city-dwelling rulers. It appears that theocratic rather than military controls were the first source of state power in many instances, but we are offered no explanation of why this was so. The eventual rise of military power also lacks causal hypotheses. Mumford alone comes to grips with these problems. He speculates that the practice of human sacrifice in primitive fertility rites eventually led to wars of conquest, and he imagines that "the urban institution of war was . . . rooted to the magic of a more primitive society [the Paleolithic hunter], which he describes as "a childish nightmare . . ." which, in modern society, survives as a belief "in the collective unconscious . . . that only by wholesale human sacrifice [modern warfare] can the community be saved" (pages 42–45, *passim*). One wishes that Mumford knew a little more anthropology and psychology, but science is far better advanced by giving the wrong answer to a problem than by failing to recognize that the problem exists.

The methods of urbanology can be broadened to have a place for the many studies of contemporary urbanization that are being carried out around the world. One need not decide whether Mecca, Nairobi, Fez, Cuzco, or Hongkong are industrial or preindustrial. Modernizing processes—such as education, technological development, communications, transportation, and others—are not only affecting different segments of the urban and suburban populations in distinctive ways but they are penetrating the hinterland, transforming the native, rural societies.

Synthesis of Views

Macroscopically viewed, urbanization reflects key transitional points, which are implicit in all three volumes: transformation of the food hunter and collector into settled farmers; amalgamation of farm villages into states, whose civilized institutions are concentrated or "contained" in the dominant city or cities; industrialization, which creates new roles and statuses and affords greater individual mobility. Microscopically viewed, there are multilinear lines of evolution and significantly different sociocultural and political types within these larger categories and developmental periods.

While the three volumes do not reduce their objectives to such simple terms as discussed in this review, they cross interdisciplinary boundaries to an extraordinary extent. This is especially true of *City Invincible*, which is the least integrated but the most interesting because of the exchange of opinions between so many kinds of scholars. There is no doubt that, as individual scholars know more about one another's disciplines, or can draw upon their colleagues' knowledge, differences in purpose, method, and interpretation will narrow.

9 Planets, 31 Satellites

The Solar System. vol. 3, *Planets and Satellites*. Gerard P. Kuiper and Barbara M. Middlehurst, Eds. University of Chicago Press, Chicago, Ill., 1961. xx + 601 pp. Illus. $12.50.

Until the latter part of the 19th century the science of astronomy was almost entirely concerned with the planets, and truly great discoveries were made in efforts to interpret planetary motions. Copernicus, Kepler, Galileo, and Newton, to name but a few of the early greats, helped to create the concept of modern natural science while studying the planets. The introduction, within the last century, of photography and spectroscopy with large reflectors turned the attention of astronomers to the stars, the Galaxy, and the entire observable universe; these explorations were so exciting that there was an almost complete abandonment of planetary studies. Nevertheless, the new instruments, techniques, and ideas developed in stellar studies could be and were usefully applied in planetary studies and broadened such research far beyond the purely dynamical approach.

The pendulum is beginning to swing the other way as extensive and expensive space probes are being made in increasing numbers, size, and range. The next 10 years should witness the exciting exploration of the surfaces of the Moon, Mars, and Venus. Such rocket research, several orders of magnitude more expensive than conventional astronomical observations, must be