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# THE SOCIOLOGY OF SPACE: A TYPOLOGICAL APPROACH

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## ABSTRACT

Much debate exists within philosophy, science, and social science about the nature of space. This paper focuses upon how space has been conceptualized in sociological theory. The underlying assumptions that sociologists hold about the nature of space are first outlined, and definitions of key terms are provided. Then a thorough review of the use of space in sociology from the nineteenth century to the present is undertaken. The core of the paper consists of a series of typologies that aid us in understanding how sociologists conceptualize space. The first is a typology of social space that ranges in scale from ethological to organizational space. The second is a sixteenfold typology of sociospatial structures such as center, territory, verticality, and spatial archetype. Finally, the author offers what he terms eleven spatial models of society that have characterized sociological theorizing. These three typologies are offered in an attempt to provide some order to the varieties of ways that sociologists have thought about space.



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# SPACE IN SOCIOLOGICAL THEORY

## CONCEPTS AND ASSUMPTIONS

Contemporary science is far from unanimous on the subject of space. Some of the contentious issues in philosophy and physics are whether space is a thing or a substance of its own--independent of material objects, energetic processes, and observers; whether it is "out there" or a mental category; and whether it can be conceived independently of time or only fused in the one dimension of space-time (Sklar 1977). In addition, the concept of distance is hopelessly tangled in the philosophical problem of measurement and cannot be treated without contextual reference to time, energy, and subjectivity (Feigl and Maxwell 1962). Consequently, it is imperative that a sociological treatment of space be prefaced by specifying those assumptions that underlie its formulation.

The first assumption is that the proper object of study is the "mesospace" in which humans live and which they directly experience. This *practical* space displays properties of a Euclidian and Newtonian nature, but sociologists are not overly concerned with such nonexperiential features as curvature and temporal relativity. However, these concepts of cosmic and subatomic spaces can be suggestive for social analysis, albeit only in an analogical and heuristical way.

The second assumption is that this mesospace is utterly human because it is a projection of human biological and psychological conditions. The way we perceive, conceive, and use space depends on our mental and bodily structures and their needs. Every creature inhabits a life-world of its own.

A third tenet is that mesospace is, logically, *social* space, as humans are thoroughly social creatures. To begin with, the shape of our body, limbs, and face,

and especially the structure of our brain, are the products of a long evolutionary development in which the role of social interaction has been crucial. Also, human space is structured by its own artifacts, which are inherently sociocultural processes and phenomena. This is, of course, one of the basic notions of modern social (human) ecology and of most sociospatial theories.

A fourth assumption is that social space, though Newtonian in some of the more practical and minute aspects, is also somewhat Aristotelian. The space in which humans live is not isotropic and absolute; on the contrary, it is highly differentiated (Harvey 1969). Spatial structures, i.e., schemas, archetypes, patterns, categories, and symbolic forms, straddle the objective-subjective distinction. Structures both inhabit our minds and emerge from the reality out there. We project our mental structures on the world, but in turn such structures have been imprinted in our minds by a history of interaction with the world, an evolutionary process of mutual reflection both at the ontogenetic and the phylogenetic levels. Slightly paraphrasing the celebrated saying of Churchill, we structure our spaces and our spaces structure us.

## SOME DEFINITIONS

Terms like space, place, site, area, surface, territory, locus, position, environment, and milieu are used in similar and sometimes synonymous ways by sociologists. Locus and position seem to convey a more relational meaning, referring to an implicit opposition between a point and a context. Area and surface, though clearly emphasizing extension, evoke an opposition to volume. The most important and closely related terms seem to be space, environment, and territory (with milieu and place as synonyms of the latter two) (fig. 1).

| Attributes \ Category | Space | Territory | Environment |
|---|---|---|---|
| Concreteness | o | + + | + + + |
| Complexity | + | + + | + + + |
| Dynamicity | o | o | + + + |
| Analytical generality | + + + | + | + + |
| Central sciences | Topology, geometry | Social science | Ecology |
| Central concepts | Distance | Value | Interdependence |

Figure 1. A paradigmatic definition of three sociospatial concepts.

Some authors assign primacy to the concept of *space* and consider environment just an accretion of tangible material aspects. This may simply be a "terminological stipulation," or may reflect, more or less consciously, a philosophical stance on the ultimate constituents of reality. There is a long tradition that considers reality as being made up of purely spatial configurations, like Democritus' "atoms," Galileo's "figures," and the geometrodynamists' "regions." In this view, all the sensorial qualities--hardness, color, temperature, and shape, for example--are in some way epiphenomenal, illusory, and derived. Others share a more common-sense notion of space, according to which the world is made of matter, energy, and "sensed" phenomena. This reality contains many different analytical dimensions such as temperature, noise, and weight, and is more properly called environment. Spatial extension is just one of its properties.

One of the most established concepts of *territory* is the juridical-political one. Here territory is the portion of the earth's surface defined by public boundaries; it is societal property, jurisdiction. According to one tongue-in-cheek

etymology, it means "the area in which the sovereign can impose its terror" (Moles and Rohmer 1978). Another concept of territory is from economics and planning, where it has been taken to mean the sum total of natural resources, the physical basis of economic activities and structures. More recently, however, some economic theories have preferred using space ("space economies" or "spatial economics") and region ("regional science") as qualifiers. A somewhat different meaning has been assigned to territory in the context of ethological studies of animal and human behavior, where territory refers to the "defended area."

*Place* has recently arisen to prominence as a central concept in environmental (ecological) psychology, microecology, microsociology, and especially humanistic geography and architectural theory. It means something close to territory in the sense that it is bounded and valued. It differs, however, in that its valuation is more of a sentimental and emotional nature than of a utilitarian one ("sense of place," "perception of place"). Moreover, it is usually something much more intimate than territory, and it is associated with good feelings rather than aggression (Tuan 1977; Buttimer and Seamon 1980; Relph 1980).

In this paper *space* is understood as the more general, abstract, and static concept, but without any ontological implications. It applies to any configuration of objects, even to those that, because of their "deadness" and immobility, cannot be ascribed to an environmental system. Wholly symbolic and artificial figures also have spatial relations. Geometry and topology, after all, are the most basic spatial disciplines.

With regard to living systems, however, *environment* is the more encompassing term, with space an analytical aspect, a specific dimension. Environment is the life-space of organisms; it is made of interactions, movement, time, exchanges of matter-energy, and information. Space cannot easily be isolated from such fused

wholes; it is an artificial construct. It is immanent, since no known physical phenomenon is without a spatial aspect. But it is sometimes of secondary interest compared to other aspects (such as "function," "energy," "information," "substance," "time," "teleology").

## THE STATUS OF SPACE IN THE HISTORY OF SOCIOLOGY

In the history of spatial sociology, roughly three phases can be discerned. In the first phase, lasting to the early twentieth century, sociologists had no inhibitions dealing with the geographical, physical, environmental, and therefore also spatial aspects of social phenomena. This may be due to several reasons, such as the low degree of specialization and division of labor among the social sciences, the influences of anthropology and geography, and the positivistic, naturalistic approach, which emphasized a physical dimension of social reality. Distinctively space-oriented schools emerged, most notably Le Play's and Durkheim's. A prolongation of this phase can be seen in the development of the "human ecology" school of Chicago, which at times envisaged a complete reduction of sociological phenomena to their underlying spatial relations. The ecological school was influenced not only by nineteenth-century biological ecology and social Darwinism, but also by the urban sociology of Simmel. Simmel had a distinctly spatial style of thought and produced some of the most brilliant and profound essays ever written in the field of "space and society."

The second phase is marked by a reaction against all forms of naturalism and positivism, and an antipathy to any hint of "environmental determinism." Under the intellectual leadership of scholars such as Weber, Sorokin, and Parsons, sociology was redefined as the science of social actions and of the values guiding

them, becoming more akin to history than to geography. All the material substratum was written off as "external" to proper sociological concerns; it was "friction" inhibiting the expansion of true sociological knowledge. During this phase, roughly between 1910 and 1960, space almost disappeared from mainstream, or dominant, sociology.

The third phase begins with the revolt against the structural-functional paradigm associated with the name of Parsons and the parallel critiques of positivist methodology. Since then, the sociological community has become highly pluralistic, adopting a number of competing approaches, methods, and research interests. Confronted with an infinitely complex and multifaceted social world, sociology is now contented to be a nonparadigmatic science, limiting itself to unavoidably partial, local, and provisional islands of theoretical order in an ultimately unmanageable world. In this effervescent situation, the spatial approaches have gained new dignity and recognition.

## SPATIAL APPROACHES IN CONTEMPORARY SOCIOLOGY

There are at least two main reasons for the growth of a spatially sensitive sociology in recent years. The first is practical and has to do with the increased emphasis on planning in Western societies. In the effort to upgrade the use-rationality of their activities, ekisticians have mobilized the support of many disciplines, including sociology. The second reason is a more theoretical, and some might say an ideological, one. It has to do with the moving away from large-scale theoretical constructs, macrohistorical approaches, structural-functional models of large societal systems, and the correlated methodologies based on institutional statistics, official records, and large questionnaire polls. This move-

ment is inspired by the psychosociological tradition of natural observation, introspection, participation, mental or natural experimentation, and personal involvement, which characterized such earlier theoretical approaches as symbolic interactionism and such antipositivistic philosophies as phenomenology.

This broad sociological movement, begun as a form of antipositivist revolt, ironically spawned some of the more radically empiricist studies in the discipline. To focus on the intimate, and usually short-lived, phenomena of the life-world--episodes of everyday life, brief encounters, fleeting situations--is, inevitably, to focus also on the temporal *and spatial* aspects of social interaction.

At the mesolevel, it is easy to exalt the role of the body, gestures, physical arrangements, and material props. This was already evident in the older phenomenology and existentialism, from which several painstaking philosophical analyses of the meaning of space in human experience had come forth. It was emphasized by the sociological phenomenology of Schütz, and permeates all of Goffman's work.

The two reasons behind a spatially sensitive sociology are not unconnected. The study of sociospatial phenomena such as territoriality, sense of place, rootedness, and environmental perception, for example, has obvious relevance for environmental design and planning. Yet it has availed itself *en gros* of the methods and theories of phenomenology and interactionism (Canter and Stringer 1975; Rapoport 1980).

## A BALANCE SHEET

Where do we stand now? Is it possible to achieve a balanced view of the role of space in sociology? Most of the authors who have given some thought to

the matter are inclined to complain that space is still a "neglected dimension" and that its thematicization is as yet primitive and inadequate (Konau 1977; Giddens 1981).

My own position is as follows:

(*a*) Space is an inherent and unavoidable dimension of all social phenomena, insofar as they consist of human behavior rather than pure mental states.

(*b*) Each level of reality, each research *problematique*, can most conveniently be studied on its own terms, focusing on its emergent properties and bracketing the rest. The emergent properties of most sociological research objects are probably nonspatial.

(*c*) The relevance of the spatial dimension in social studies cannot be stated once and for all. It is highly variable, relative to the level and purpose of the research in question. Nor is it possible to weigh it relative to other general factors.

(*d*) It is unlikely that a "general sociospatial theory" can ever be developed, without becoming rather empty of substance. What is more feasible is a repertory of innumerable, more or less specific, theoretical principles (propositions), each linking a limited number of sociological variables with a spatial one. A preliminary review of the literature suggests that already hundreds of such propositions have been formulated.

(*e*) We must content ourselves with general spatial approaches and orientations. What is of paramount importance is that all sociologists be sensitive to the spatial dimension: that they do not neglect or rule it out a priori, but stay open to the possibility of accommodating it in their models.

(*f*) In sociological discourse, the concept of space can legitimately have a wide range of meanings, from the most physical to the most abstract and meta-

phorical. "Social space" as defined by Sorokin, with its attending phenomena (stratification, mobility, etc.), is an integrative concept.

This paper will present some possible typologies of sociospatial phenomena. The first is that of *levels* or scales; it can also be called a typology of the vertical organization of social space. The second distinguishes spatial phenomena according to their nature or substance--this is essentially a typology based on the several *disciplinary approaches* to sociospatial phenomena. A third typology involves some basic sociospatial *structures* or patterns (or forms, categories, differences). Finally a fourth typology comprises some visual *images* (spatial models) of society as a whole, entertained by sociologists and lay people alike.

I am aware of the limitations and perils of a typological approach and see it merely as a first step toward a more properly theoretical study understood as the formulation of a systematic network of hypothetical propositions supported by and liable to empirical corroboration or falsification.

## LEVELS (SCALES) OF SOCIAL SPACE

### THE PROBLEM OF SPATIAL HIERARCHY

It seems self-evident that social space is organized along a hierarchy of scales. This is most clearly seen if we take a legal-political-formal approach, where global space is first partitioned into international alliances, blocs, or empires. At a lower level we find nation-states, each of which is usually subdivided into smaller units (states, regions, counties, provinces, departments). In all nation-states there exists a basic level of administrative units--urban districts and rural locales, for

example. Of course this legal-political dimension can be merely formal, that is, it may be quite devoid of sociological substance.

Another approach is the geographical one. Both in physical and in human geography a basic issue is that of regionalization, i.e., identifying the core and boundaries of homogeneous units. In the case of human (cultural) geography, homogeneity (unity) can be defined in very different ways. Usually the result of such exercises is a nested hierarchy of regions, from micro to macro: e.g., Attica, Greece, the Mediterranean, the ancient world. In human geography, an important factor is historical sedimentation; thus, it must consider historical-cultural processes (which includes political-legal aspects).

A third approach focuses not on the regions as homogenous units, but on human settlements, as a reality sui generis. Many hierarchical classifications of settlements have been proposed by geographers and urbanists. One of the most comprehensive and well known is the "logarithmic ekistic scale" of Doxiadis, which distinguishes fifteen levels.

A fourth approach is more "subjective" or psychological in nature; it draws upon studies of animal behavior (critical distances), cultural anthropology (proxemics), and architectural theory, and is usually very meticulous in distinguishing sociospatial levels at the micro end of the scale. It is ill suited to analyses of macroscale phenomena. Thus Norberg-Schulz (and, with some variations, Moles) distinguishes six levels, related to the functions and behavior of the human organism: (1) utensils (hand), (2) furniture (body), (3) house, (4) city (social interaction), (5) landscape, and (6) ecumene.

## SOCIOLOGICAL APPROACHES TO SPACE

Within the sociological tradition, space has not been taken very seriously. Here we must distinguish between the theoretical core of the discipline and its more spatial-oriented special branches. In human ecology and in urban and rural sociology we often find attempts to classify and define the levels of sociospatial organizations in terms of "communities," which seem to encompass all scales of social space. The names given to these community levels do vary greatly.

Mainline sociology, on the other hand, does not admit this as a very important issue. Its usual approach is simply dichotomous: social reality, in its various aspects, can be analytically separated into small/large, private/public, intimate/nonintimate, local/cosmopolitan, particularistic/universalistic, etc. One of the basic sociological antinomies is between Community and Society (Gemeinschaft and Gesellschaft), which are usually exemplified by the small rural village and the large city. In contemporary sociology, there is much talk of "micro" vs. "macro" approaches, the former focusing on small groups, personal relations, and subjective meanings, whereas the latter is concerned with larger societal structures and formal relations. Usually the stress is on the number of actors, but of course this number is in some way related to the physical space they occupy.

While the lower, or micro, end of the sociological model is rather easy to conceptualize, the discipline has never been clear on what is meant by "society." Nineteenth-century sociologists, including Marx, conceived of society as something much wider than the various political-linguistic formations. To twentieth-century sociologists, on the other hand, society is usually equated, implicitly or explicitly, with the nation-state. In contemporary sociological theory, only occasionally does one find systematic discussions of this crucial issue, and even more rarely does one

encounter explicit acknowledgments of the global reach of modern society. Thus Luhmann suggests a typology of social systems that is basically structural-functional, but with clear spatial implications:

(1) "Simple social systems" are small, often fleeting, based on personal, quasi-biological relations and marked by the perceived copresence of the actors in a restricted space.

(2) "Organized systems," or organizations are marked by formality, institutionalization, persistence in time, and control of boundaries. They have typically no spatial correlate, and they can encompass any number of people and cover any sized area. Their classification and analysis in terms of numerical or spatial size is of minor significance.

(3) "Global societies" are open, informal social systems, defined by relations of exchange, especially economic and cultural. In our time, there is only one society, encompassing the whole world (Luhmann 1971, p. 75).

Other sociologists are uncomfortable with this approach, which remains basically dichotomous (there is no clear sociospatial articulation between simple social systems and world society). Thus, Collins (1981) has suggested a rather crude, but interesting typological model in which the numerical, spatial, and temporal dimensions are taken into account.

| | Time Scale |
|---|---|
| One person (1 - 3 sq. ft.)<br>Small group (3 - $10^2$ sq. ft.)<br>Crowd/organization ($10^2$ - $10^6$ sq. ft.)<br>Community ($10^7$ - $10^{10}$ sq. ft.)<br>Territorial society ($10^{11}$ - $10^{14}$ sq. ft.) | |

## A PROPOSED MODEL

I agree with Luhmann that the intermediate social space, between the private life-world of the individual and the world society, displays no natural, necessary, or logical spatial articulations, but sociological theory should take into account the (historical, contingent) articulations emphasized by sister disciplines and somehow integrate the formal-political, the cultural-geographical, and the ekistic typologies. While such eclectic fusion could lead to confusion, that is the nature of sociospatial reality (at least at the intermediate levels). One can hardly end up with clear, simple models if reality is complex and jumbled.

It may be helpful to advance a model of sociospatial levels or scales that can put some order in this field. The suggested typology is as follows:

1. individual
2. small groups
3. formal organizations of all sizes
4. small local communities
5. larger urban and regional communities
6. nation-states
7. transnational systems
8. humankind.

## TYPOLOGIES OF SOCIAL SPACES

Rather than ranking sociospatial levels, other approaches have sought to define "types" of space. In the history of the social sciences we find many attempts to differentiate types of spaces. One of the best-known scholars in this field, Chombart de Lauwe, has even stated that the noun space is meaningless unless qualified with an adjective (1979). Many categorizations are simply dichotomous, such as geographical/psychological, banal/functional, objective/subjective, concrete/abstract, proper/metaphorical, and cognitive/operational. There are also a number

of more complex typologies. One of the most current in sociological literature has been proposed by Bentley (1954), according to whom spaces can be vulgar, mathematical, physical, social, and sociological. Of particular fecundity in this respect has been the French tradition of Halbwachs, Perroux, Chombart de Lauwe, and Lefebvre, each of whom has suggested several different taxonomies. In another cultural context we find a genealogy of taxonomies linked with the German philosopher Cassirer's (1923-29) tripartition of organic space, perceptual space, and symbolic abstract space. The most celebrated offspring of this lies in architectural theory: the fivefold partition proposed by Norberg-Schulz (1972). According to him space can be pragmatic, perceptual, existential, cognitive, and abstract. Another, similar one, well known among geographers, is Tuan's (1974) categorization.

Another empirical classification of broad social spaces is according to disciplinary perspectives, such as economic spaces, cultural spaces, political spaces, and psychological spaces. To this group belong Castell's tripartition: economic-rational-utilitarian-space; political space; and ideological-symbolic-expressive space (Castells 1973), and the five types of "spatial forms" mentioned by Bialovecki--production, consumption and reproduction, administration and management, symbolic, and exchange (Hamm and Bialovecki 1985).

Proposed here is a sixfold division into ethological, personal, lived, symbolic, ecological, and organizational spaces. Each type is characterized essentially by the theoretical and disciplinary approaches peculiar to it, but with wide overlaps, since the same sociospatial phenomenon can be treated in different theoretical and disciplinary perspectives.

This succession of types has some resemblance to a scale of ascending rationality, or at least intentionality. *Ethological* spaces are grounded in our

biological nature; *personal* spaces are rooted in psychological structures, but as molded by the social experience, just as the "personality system" mediates between the behavioral organism and the social system. *Lived* spaces and *symbolic* spaces both deal with perceptions, evaluations, imagination, symbols, and semiotics. The difference between the two types is that lived spaces are more individual, private, and subjective, whereas the symbolic spaces are more collective, public, and objectified. *Ecological* spaces, by contrast, are based on the operation of utilitarian principles (least effort, material interests) of the individual and corporate actors. Nevertheless, the spatial patterns thus emerging are unintended effects. Finally, *organizational* and *political* spaces are intentionally prefigured, manipulated, produced, and structured by corporate actors in view of their goals.

***Ethological Spaces.*** The central phenomenon here is human territoriality and the strong emotions involved in the defense of bodily intimacy--home, turf, property, and sovereignty. There seems to be mounting evidence for the "natural" and "innate" character of such behaviors. Another important phenomenon is the spatial structure of attention. The literature here is mostly ethological, paleoanthropological, and neuropsychological, although extensive sociological reviews have been made (Malmberg 1980).

***Personal Spaces.*** The difference between ethological and personal spaces is more in theoretical (and ideological) approaches and research methods than in substantive issues. Here too territoriality, privacy, and crowding are among the basic phenomena, but they are studied in the framework of modern society, with more empirical and experimental techniques, mostly by students of human personality. Included in this group are studies of the meanings and functions of

interpersonal distance (proxemics), the role of spatial arrangements of actors in small-group settings (Steinzor effect, eye contact, leadership, behavioral settings), and experimental studies on the perception, cognition, and evaluation of spaces at a large scale. These studies are similar to those in the extensive literature on environmental and ecological psychology, and perception geography, for example.

***Lived Spaces.*** The substantive material collected here overlaps that in the preceding category--perception and valuation of the immediate surroundings; attribution of sense and personal meaning to different spaces and places, the meaning of postures, gestures, motions, and positions; identification with home and everyday loci of activity. The difference is mainly methodological and disciplinary. The concept of lived space has been used by philosophers and employed by "humanistic" geographers, who concern themselves with very small spaces (Tuan 1977). There is also a sizable microsociological literature dealing both with lived space and with territory, privacy, proxemics, behavior settings, use of space, etc. (e.g., Goffman 1963).

***Symbolic Spaces.*** This is a highly diverse category. It comprises, first of all, the conceptions of space of prescientific culture: cosmologies, mythical geography, and sacred spaces. In premodern society, according to Durkheim, only the sacred is real, and therefore sacred spaces are the most important. The whole of sociospatial reality is structured and given meaning with reference to the history of the gods, their positions, and their powers. No relevant act of adaptation to, or transformation of, physical spaces goes without religious meaning and ritual. These phenomena have been studied by cultural historians, anthropologists, and

archeologists, as well as scholars interested in urban and territorial patterns (Eliade 1949; Wheatley 1971; Zimmer 1974).

A related concern is the residual mythical conceptions of space that can be found in modern society. There are two main categories: geopolitical myths (e.g., state ideas, myths of territorial unit) and the myths of mass culture, especially with regard to the fetishization of tourism (MacCannell 1977).

A third focus treats space as a medium of communication, a "silent language," a symbolic code, a system of notations. Here the two starting points are first, the anthropological studies on the meaning of spatial patterns of settlements, camps, processions, and positions in groups; and, second, the theories of art historians and estheticians on the symbolic meanings of spatial patterns in painting (e.g., symmetry and perspective) and especially in architecture (e.g., Greek external space, medieval internal space, baroque dynamic space, modern isotropic space) (Giedion 1941). This second line has developed into a complex "semiological approach to architecture," where architectural spaces are considered as "words in a spatial discourse" (Gottdiener and Lagopoulos 1986). This group, however, does not extend to the systems of purely symbolic spatial languages, such as "eiconics" and graphics, as devoid of sociological substance (which architecture and town planning are not).

***Ecological Spaces.*** By ecological spaces we mean the phenomena traditionally studied by social geographers and human ecologists, such as those of the Chicago school. These are patterns of human spatial behavior and of behavior in space, at a meso- and macroscale (from the small neighborhood to regions and beyond), that are approached with quantitative and formal methods. The emphasis is on actual aggregate behavior and its effects on the organization of social space--

the emergence of natural areas, the spatial patterns in the growth and decay of urban systems, the distribution of activities in space. Among the basic concepts are distance and accessibility, movement costs, density, and ecological carrying capacity of regions. Here also belong the formal models for the interpretation of such sociospatial phenomena as urban growth, migration, central places, and allometric growth. Besides geographers, spatial economists and regional scientists also employ these ecological models. The term "ecological" has been preferred to others not only in deference to the Chicago school, but also to acknowledge the spontaneous, "uncontrolled" nature of the aggregate behavior patterns (Kuhn 1974).

***Organizational and Political Spaces (the Space of Power).*** In this final category we consider the ways in which space influences organizations, and especially the ways in which organizations extend over space, and articulate, use, and manipulate it for their purposes. Intentionality and (some sort of) rationality are the defining aspects of this category. Among the basic features of such spaces are their boundedness (closure), hierarchical patterning (nesting), and fixation. As the most important social organizations are the state and its internal subsystems, organizational space is to a large extent political-administrative space, and also geopolitical space as it results from, and influences, international relations. In general, the theme here is the "spatial correlates of power" (Claval 1978; Raffestin 1980). Important inputs to this category then come from political geography and strategy. But since all kinds of organizations have partly similar spatial structures and problems, macrosociology is also relevant.

# SPATIAL STRUCTURES (OR DIFFERENCES)

## THE CONCEPT OF STRUCTURE

A third criterion for setting some order to sociospatial phenomena is that of *spatial structures*. These were mentioned in the introduction. Social space is organized--objectively and subjectively, tangibly and symbolically, practically and conceptually--according to a number of sociospatial schemas (models, patterns, categories, symbolic forms, archetypes), which are termed structures.

The complex issues of structuralism, the epistemological status of the approach, and the nature of structures will not be discussed here. In order to avoid getting into this quagmire, it may be wise to speak simply of spatial *differences*. Spatial structures, or differences, are of various types and origins. Some can be traced back to the physiological makeup of human beings, others to deep-seated evolutionary and historical experiences. Some of them are ubiquitous and charged with much "energy" (as Jung would have it), whereas others seem much less capable of arousing strong emotions. Still others seem less widespread, yet general and interesting enough to warrant mention. Some are elementary, emphasizing just one spatial relationship, others are more complex, self-contained, and full of meanings; these latter are called archetypes. While some are easily grasped intellectually, others lie deeper in our psyche.

## SOME TYPOLOGIES OF SOCIOSPATIAL STRUCTURES

To my knowledge, sociospatial structures have never been treated explicitly and systematically in the sociological literature, so I shall deal with them in some

detail. Some precedent can be found in theoretical architecture, as in Norberg-Schulz's triad of (1) centers, nodes, or places; (2) directions and paths; and (3) domains (1972). This set recalls immediately the Euclidian triad of point, line, and surface, but it is also found in Kandinski's "theory of figurative arts," in Gestalt psychology, and in the psychology of vision. Its best-known empirical application in the sociosphere is Lynch's typology of urban structures (nodes, landmarks, domains, districts, paths, barriers) (Lynch 1961, 1981). There is some relationship between this concept of sociospatial structures and Alexander's "patterns," but the confines of this paper do not allow me to pursue this fascinating subject. It is sufficient to recall that Alexander identifies almost 300 patterns (1977). In the sociological literature proper, only Simmel seems to have examined the subject. In a famous discussion on the general features of social space, Simmel (1955) mentions centeredness, boundedness, distance, and fixation, which can be interpreted as corresponding to some of the above-mentioned spatial structures. In the following pages I suggest a typology of such sociospatial forms.

## A PROPOSED TYPOLOGY

***The Center.*** Although it does not seem possible to find any kind of orderly relationship among structures, nor is their number altogether certain, I am inclined to think that the most important one is the center. It is so important, in fact, that even some prominent sociologists have discussed it at length (Shils 1975). Space is hardly imageable unless we focus our mind on a center (at least among Westerners; it seems that Orientals have less trouble in this regard) (Maruyama 1981). This may be due to the physiology of sight (foveal vision) and to the fact that our sense of space is largely structured by our visual faculties, or it may be due

to the phylogenetic experience as social primates, whose groups are structured around "centers of attention" (Chance and Larsen 1976). Be that as it may, centeredness is certainly a ubiquitous feature of cosmologies and other large-scale cultural systems, as Cassirer (1923-29), Eliade (1949), Wheatley (1971), and others have shown. The center is highly charged with symbolic meanings (it is God, the origin of the universe, the source of all morality, the goal of all action, the seat of all power, etc.) (Strassoldo 1981).

***Contours, Borders, and Boundaries.*** The center polarizes social space. But it can also establish an opposition with another basic structure--the contour, or border, or boundary. This too can be shown to be highly significant, as it divides social space into strongly asymmetrical parts: *inside* and *outside*, *us* and *they*, *ingroup* and *outgroup*, *figure* and *ground*, *men* and *barbarians*, *object* and *context*, *system* and *environment*. The boundary too can be imputed to different sources: the territorial defense behavior of many animals, the primeval experience of differentiation between ego and the world, the need to maintain group identity, and also the neurophysiological mechanisms of the visual system. The boundary can assume different forms and functions. If static and closed, it creates a periphery, whereas if open and moving, the corresponding spatial structure is better called a frontier. According to many authors, boundaries are even more primitive and important than the center, which can often be shown to be a derivation. The basic function of systems, natural as well as social and cultural, is to maintain, defend, and maximize the difference between the inside and the outside, i.e., the boundary. Luhmann (1971, 1975) is currently the best-known proponent of a sociological system theory based on this notion. Many others have emphasized human beings' proclivity to detect, project, and impose demarcation lines on an

otherwise confused reality. I am hard put to decide which of the two, the center or the boundary, is the most important sociospatial structure (Strassoldo 1976-77, 1982).

***Verticality***. Other structures are clearly rooted in the human body and its relations to universal features of the environment, such as gravity. As Aristotle insisted, up and down is a basic spatial difference. This difference is easily laden with moral meanings, the reason being that some of the most highly valued things, like the sun, are located high, and that life has a general tendency to grow *up*. The more intangible matters, like air and vapor (the spirits) rise, while that which is crass and dead, sinks. In general, then, up is good and desirable, whereas the contrary applies to down. When people embody their moral categories into artifacts, society tends to structure itself concretely along this vertical dimension. Saintly and important persons tend to sit and live above the lowlier ones. This dimension is metaphorized, and the whole society becomes conceptualized as a pyramid.

***Front and Back.*** There are then two binary structures that are perhaps less important because they are relative to contingent positions of persons. One is front and back (the other is left and right--see below). Generally speaking, animals are organized along a preferential axis of locomotion, with many important organs located in front. Front is then more important and better than back. In humans, front takes the symbolic meaning of progress. It also is the seat of social interaction and of confrontation (the "front" in war). It is the public side, as against the more private back; and it is the seat of more dignified functions. These meanings have been objectified in architectural structures, which usually have a front (façade) and a

back side, although it is one of the achievements of modern architecture to have equalized and democratized these "class distinctions" among sides of buildings. Sometimes cities have been characterized as having a front and a back. In modern sociology, the importance of the front and back regions of social interaction has been thoroughly elaborated by Goffman, taking his cues from the dramaturgical model (frontstage and backstage) (1963, 1972). In societies that entertain an ideology of progress, the "vanguards" pride themselves for aiming "forwards," while imprecating with vituperation "backward" people.

***Laterality: Right and Left.*** The other antinomy issuing from the bilateral asymmetries of the human body is right and left. The great majority of people (more than 90 percent) have a natural tendency to use and exercise the right arm more than the left; the former becomes the "good" one. In many languages right means also straight (not crooked), true and honest; conversely, left is sinister, maladroit, ill-fated, and damaging. The right region is then the good one, sharing some of the properties of the front and the up.

It is hard to find many sociological phenomena connected with this polarity. Perhaps the most important is the political one. Since the French Revolution and especially the splitting of the Hegelian school, the political-ideological space of Western societies has been organized along the right-left axis, more or less congruent with the back-front, conservation-progress one. It is interesting to note that left-wingers have not been intimidated by the heavy load of negative associations this terms has in traditional and common discourse, and have even managed to reverse these connotations. This reversal favoring the left over the right has a precedent in the Chinese tradition (due to the emperors' southward-facing position, which forced an association of his left side with the good cosmological

region, the Orient); and the Gnostic tradition, according to which the true and just world was somehow the specular reversal of the apparent, earthly one.

*Near and Far.* Perhaps the most popular spatial structure in sociological literature is near and far (close and distant). Drawing on natural science analogies some sociologists suggested that most social processes can be viewed in terms of approximation and distanciation, attraction and repulsion. Love and solidarity demand cohesion and intimacy, whereas hostility and contempt result in estrangement, detachment, separation, and withdrawal. Like people tend to congregate, and strange people tend to be "marginalized." Social distance naturally translates into spatial distance, as many ecological studies show, and the reverse is also true. This seems one of the firmest findings in spatial sociology. Intimacy is usually given a positive moral evaluation, and detachment a negative one: the former is associated with warmth and love, the latter with coldness and rationality.

*North and South.* There are two polar antinomies deriving not from the biology of the human body, but from the historical-geographical circumstances of world civilizations. Most of them developed in the northern hemisphere and shared a set of common symbolic associations with the north-south axis. Both in China and in the Mediterranean, the North is the cold and dark region, where barbarians roam; the South is the warm and sunny region, the locus of the good civilized life. But there are variations to the pattern. As soon as civilizations are seen as decadent, the South is decried as the locus of corruption, while the North the source of strength and virtue. Tacitus and Montesquieu are two of the better-known upholders of this view. A final twist in this polarity has come in recent years, when the strength and wealth of the North has been condemned as the cause of the plight

of the South, both at the level of some nation-states, and especially, at the world level. The readiness with which such metaphors catch on, in absence of conclusive evidence (Claval 1984), seems a clue to the deep roots of the North-South opposition.

***East and West.*** The other cultural-geographical polarity is no less deep seated. The east-west is the axis of the rising and setting sun, of light and obscurity, of illumination and ignorance, of life and death. In the European and Mediterranean experience, the East has been, for a long time, the source of great religions and higher civilizations and also of the most dangerous threats to native liberties. Europe often conceived of itself as a bulwark against the "oriental despotism" of the Persians, the Huns, the Turks, the Russians, the Reds, and often the Yellows.

There are also ancient observations (Herodotus, Bishop Berkeley) on the gradual shifting of the cores of civilization and power from the east to the west--from Mesopotamia to Greece to Rome to northwestern Europe to England to the Atlantic seaboard of the United States, with further developments toward the Pacific Coast, and perhaps, Japan, where the cycle should have run full circle. But of course all this is very speculative and very eurocentric. Other cultures may entertain quite different conceptions of east-west polarity.

***Territory (Domain, Place, Home).*** We come now to some socio-spatial structures of a far more secure, if modest, status. One is variously called territory, domain, or place. It is a circumscribed portion of space, filled with meanings and emotions; it is home (mother)land, country, but also property and estate; the source of livelihood but also of security and identity. It is an object of

passionate love and staunch defense; it is the inside part of the universe, and at the same time the outwards physical projection of the self; at the minimum it is the "spatial bubble" or invisible shell that surrounds every individual as a portable territory. Needless to say, this structure has been the object of many studies of an ethological, psychological, geographical, and sociological nature (Malmberg 1980).

***Path.*** People are homing creatures, but also roaming and restless ones. So another important sociospatial structure is path or direction, usually manifested in linear form--the trail, the river. Open-ended lines seem naturally to suggest movement, to function as arrows. This has important effects on the figurative arts (linear perspective, etc.) (Panowski 1927).

***Door.*** Simmel (1956) has drawn our attention to the important meaning of doors and bridges as universal sociospatial forms. They are superficially similar, but carry some crucial differences. The door (gate) is what connects the inside and the outside, home and world. It permits, filters, and controls exchanges with the environment and is therefore vital to any organism. Moreover, it is one of the main elements of the "front," the public side of structures. Its importance has traditionally been expressed architecturally in highly dignified and imposing forms. In foundation rites, gates are interruptions of the furrows and signify the continuity of the earth's surface.

***Bridge.*** Bridges are structures that artificially link what was naturally separated, such as the two banks of a river. They do not imply continuity between outside and inside, but the joining of different domains. Like walls, but for opposite reasons, they do violence to nature and must be continually justified and

consecrated ritually. If the two systems or domains become an integrated unit, the bridge or junction may develop into a center for the new encompassing system.

***Composite Structures.*** Beyond elementary spatial structures there are a number of structures that emerge from their combination. Thus from the combination of center and up/down there emerges the great cosmological machine of heavens, earth, and underworld, connected through the world axis. This is certainly one of the most universal worldviews, and one that lies at the basis of many architectural and urban-territorial achievements (Eliade 1949; Wheatley 1971).

***Sub-elemental Structures.*** As in the physical realm, spatial-structural elements can also be split. "Territory," for example, can be differentiated into two "particles": the "home," i.e., the secluded place for rest and security, and the "range," the wider space of hunt, livelihood, and exploration. Home and range, in turn, can be reduced to center and frontier.

This is one interpretation we can offer of the "refuge-prospect" structure discovered in Western landscaping, both pictorial and real. Refuges are the intimate, cozy, shady, secure, uterine retreats. Prospects are the broad sunny vistas, the panoramas. What is peculiar in the refuge-prospect structure is the visual relationship between the two. The occupant of the refuge must "see without being seen." This is imputed to the long anthropic evolutionary experience of savanna hunting life and is observed not only in landscape architecture and painting, but also in some more general patterns of residential preferences: places with a view, heights, etc. (Appleton 1975).

***Spatial Archetypes.*** The term archetype is often used. I take it to mean the spatial structures characterized by large and complex fields of semantic associations, which touch very deep and important psychic chords. Archetypes are so primitive, diffuse, and universal as to suggest a biological and phylogenetic origin, often expressed in intrinsically spatial, visual patterns. In other words, these archetypes are the purely figurative subset of Jung's archetypes and symbols; they are Goethe's *Urformen*. There is a limited number of them: the circle, the cross, the spiral, the labyrinth, and perhaps the triangle, for example. The analysis of this subject easily slips into cabalistic and mysteriosophic speculations on the meaning of forms and images.

The best known, more universal, and conceptually rich of such spatial archetypes is certainly the circle, the mandala. Some have speculated that the human fascination with this figure has a biological basis. Its role as a universal metaphor in philosophical thought has often been emphasized. In the form of the mandala, the circle has been an important element of cosmological thought and architectural practice. The cross can symbolize the intersection of the planes of reality (heavens, earth, underworld) and/or the cardinal partition of the earth's surface. Circle and cross fuse in the basic ideogram of the city, the "crossroads within the wall." The spiral is associated with the origin of life and the evolution of the universe. It recalls the most elemental natural machine, the "eddy" or "tourbillion." The main problem, generally speaking, with archetypes is their ontological status: are they somehow engrained in our biological structures, culturally transmitted, or, simply graphic conventions, notations (Laponce 1975)?

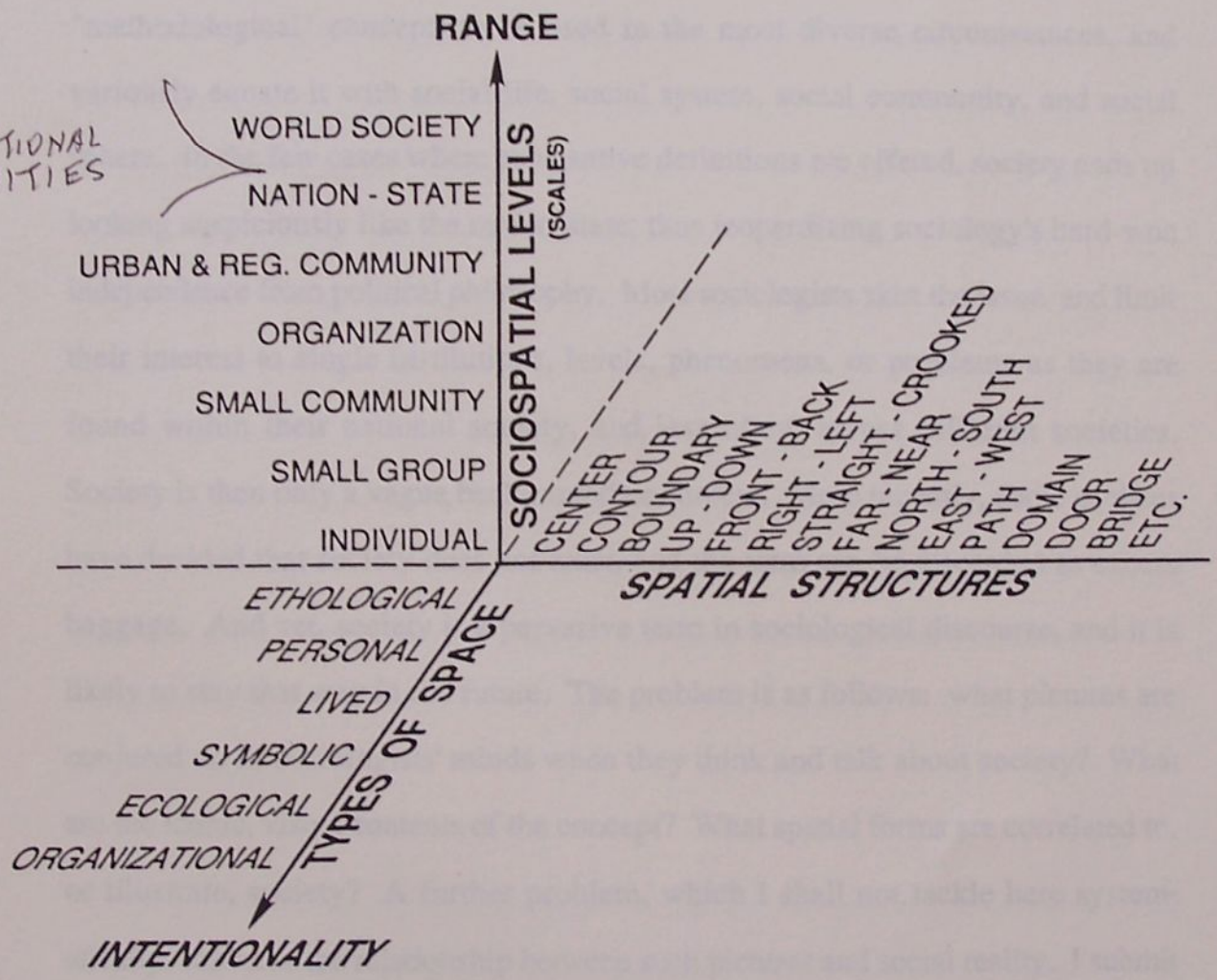


Figure 2. Some typologies of sociospatial ~~structures.~~ Dimensions

## SPATIAL MODEL OF SOCIETY

It is well known that society is the most troublesome concept in sociological theory. Most sociologists fail to define it. When they do they usually consider it a "methodological" concept, to be used in the most diverse circumstances, and variously equate it with social life, social system, social community, and social sphere. In the few cases where substantive definitions are offered, society ends up looking suspiciously like the nation-state; thus jeopardizing sociology's hard-won independence from political philosophy. Most sociologists skirt the issue, and limit their interest to single institutions, levels, phenomena, or problems as they are found within their national society, and, less often, across different societies. Society is then only a vague background or context. More recently, some of them have decided that society does not exist, and the term can be discarded as excess baggage. And yet, society is a pervasive term in sociological discourse, and it is likely to stay that way in the future. The problem is as follows: what pictures are conjured up in sociologists' minds when they think and talk about society? What are the iconic, visual contents of the concept? What spatial forms are correlated to, or illustrate, society? A further problem, which I shall not tackle here systematically, concerns the relationship between such pictures and social reality. I submit that there are at least eleven main types of spatial representations of society.

***Anthropomorphism.*** This is the most primitive of all. It has two main variants: the *organismic* and the *dramaturgical* metaphors. The first is well known and can be found in Athena's "prosopopea" to Socrates, Aggripa's parable of the social body, and Hobbes's "body politick." It is still very popular in international politics. Here societies (nation-states) are seen as persons or actors. In sociology

the organismic metaphor gained dominance in the nineteenth century and has since fallen into disrepute. Though clearly iconic, it can hardly be called spatial. On the contrary, it has been seen as one of the main hindrances to proper spatial thinking in sociology (Gubert 1972).

In the second variant, social situations, relations, structures, and institutions are thought of as groups of people (persons, actors, homunculi, social types) playing roles in a scene. It can be hypothesized that every abstract concept is tied, more or less rigidly, to such a scene or picture, whose source is usually in early experiences. Unless the mental reference of the word "society" is nothing more than the word itself in its graphic form, there must be some iconic correlates. I suggest that one of the most common and simple is the picture of people acting in a situation, mostly at a manageable and imageable scale similar to actors on a stage or personages in a painting. This too, though iconic, is not especially spatial; although space intervenes more clearly than in the other variant in the structuring of the situation (distance between actors, their reciprocal movements, the size of their encompassing stage).

***Map.*** Just as the dramaturgical scene can be seen as a derivation of the organismic icon (many actors impersonating society instead of one), so the geographic model can be described as an extension of the organismic. Here, society is seen, from a bird's-eye view, as a large collection of people settled in a territory. Due to distance, individual features tend to vanish, and society is seen as an aggregation of more or less homogeneous individuals or points. What rises to prominence are the differential features of the spatial substratum. The neutral, abstract space of the stage becomes the concrete territory. Cartography plays an important role in the spatial structuring of modern society. One of the main

purposes of the primary school system is to imprint on the minds of young citizens the shape and spatial features of their "country." We submit that sociologists too, when thinking or speaking of societies, tend to see them as if they were on a geopolitical map--a shape uniformly colored, to symbolize unity (of language, law, institutions, culture, spirit) and sharply differentiated, by lines and colors, from its neighbors. However the cartographic image of society is not very popular, nor prestigious, among sociologists in their professional practice. This may be part of boundary-maintaining mechanisms, whereby maps are seen as the specialty of colleagues, in the department of geography, or, more seriously, as a hangover of the old fights against "environmental determinism." Dealing with maps seems to be considered unscientific, or at least unsociologic. This may be one of the reasons for the decline of the Chicago school and the persistent marginality of social and human ecology. As a result, sociologists are usually rather blind to spatial and local variations within societies. They tend to treat them as spatially undifferentiated wholes. This attitude has been reinforced by theories on the effects of the advances in the technology of transport and communications, whereby it is assumed that space and territory will "wither away" as relevant factors in social dynamics. Thus, sociologists seem unequipped to understand the territorial bases of social processes where scale is involved--in localism, regional movements, or supranational events.

It is hard to assess the presence of the cartographic spatial metaphor in the sociological mind. Sociologists may well hold sharp mental maps, entertain strong geographical myths, and possess vivid geographical imaginations, but these rarely show in their professional work (due to the inhibiting effects of the official anti-spatialism, both ideological and ontological, of the discipline).

***Grid.*** The grid can be seen as an abstraction from the map. Like the map, it emphasizes the surface (the extension) and the partitions (the boundaries), and it stresses the whole over the individual components. But unlike the map, it does not pretend to reflect sociospatial reality. It is, rather, a tool to organize this reality rationally. Therefore, this model can be found among administrators, planners, and students of government more than among sociologists. The grid rationalizes sociospatial differentiations into a systematic hierarchy of Chinese boxes. A social-political-territorial system is subdivided into lesser units (e.g., states, regions, countries, townships, districts). The grid stresses order, equality, regularity, and homogeneity. It is the hallmark of bureaucratic and economic rationality, as found among the Romans (the grid plan of towns, the *centuriatio*), the cartographers in the service of long-range maritime commerce (the geographic grid of parallels and meridians) or of colonial expansion (the land survey grids of the Americas), the Jacobin theorists of the modern state (Sieyès' proposal for organizing republic France in 100 perfectly square departments of 10 x 10 km.). It also seems to lurk in the back of the minds of present-day bureaucrats and planners when they insist upon the "rationalization" of local government. And, of course, it is the operational tool of many social control institutions (Claval 1978). However, most sociologists are quite alien to this mode of organization, although some of them partially use it.

***Amoeba.*** Another marginal case, the amoeba model, is mostly found among urban planners. The referent here is the human settlement, as a "super-organism" made up of a population, its activity, the space in which it is based, and the artifacts it produces. It is closely related to the organismic model, but with more emphasis on the inner spatial structure and processes (and it is flat). Urbanologists, "ekisticians," and others are wont to talk of the city as a living system that grows,

stretches, sends out "digitations" and "tentacles," and then decays. The amoeba model is also found in classical human and political geography. Ratzel, for example, characterized the State as a "spatial organism," driven by an "instinct" to phagocytize territory, endowed with a "head" (the capital), and attack and defense organs (the frontiers). The amoeba model, although in several respects organismic, is considerably more sophisticated than the anthropomorphic one. In sociological literature it can sometimes be found in human ecology texts. But it also seems quite foreign to the bulk of mainstream sociological thought.

An amoeba-like pattern can emerge at the microlevel in space-time budgets (or time-geography) studies, where the individual is followed in daily, weekly, and yearly rounds of activities. When movements are plotted on a map, they tend to give rise to an amoeboid pattern. Such studies are also mostly done in the context of urban sociology and urban planning. While the unit of analysis here is the individual and not the settlement, the patterns are similar, which is not surprising, as the settlement is the product of individual actions.

***Chart.*** On quite another level we find the analytical descriptions of various social phenomena in terms of Cartesian space. As already mentioned, Cartesian space has become a veritable second language of science in general, and also of much of (quantitative, positivistic, analytical) sociology. When sociologists speak about social phenomena, they often make gestures as if plotting lines on a diagram--curves, vectors, patterns of points. Cartesian space, like the Aristotelian one, is "anisotropic." It has a center of origin and "natural" directions, codified by Western writing habits. The arrow of time goes from left to right, the growth of quantities from bottom up.

One important characteristic of Cartesian mental space is that it is only bidimensional. Adding a third dimension poses serious technical problems (one must be versed in projective geometry or use sophisticated gadgets), and beyond it distorts the intuitive nature of "Cartesian space." It becomes a purely logical, mathematical, metaphorical space. The limitation of dimensions has an important effect on scientific thinking, namely that only a few "variables" can be spatially plotted at a time. This means that social reality tends to be disaggregated. One tends to lose the capacity to think globally or holistically. In principle, everyone knows that Cartesian space is purely methodological, but methods, techniques, and tools often end up shaping, however unwittingly, perceptions of objects and views of the world. In this sense, Cartesian space can become a general image of social reality.

***Mechanical Model.*** In addition to the organismic metaphor, classical sociology entertained a second one: society as a machine, as clockwork. The mechanical metaphor has been revived, in the last decades, in the form of cybernetic, organizational models of society, which lend themselves easily to graphic representations (block diagrams, flow charts, systems models). Boxes and ovals of various sizes and shapes, connected by lines and arrows of different thickness and structure, symbolize respectively social "things" (roles, actors, groups, elements, subsystems, structures) and social events (actions, influences, causes, relations, flows). Such models are usually bidimensional, but as in the Cartesian chart case, some further dimensions can be added by suitable techniques (color-coding, three-dimensional dynamic physical models, etc.). Like Cartesian charts, block diagrams are only a useful tool, a code of notations. Nevertheless as

in the proceeding case, the danger is always present to confound a graphic convention for reality.

The ***Network Model*** is closely related. Here the boxes are reduced to points or nodes, and the focus is on the lines connecting them. The model has been developed in the "communication" approach to sociology and relies on the development of mathematical "graph theory." Today it is considered one of the most interesting "new" theoretical approaches. It has solid roots in older sociological work, such as Moreno's "sociometry," where the lines represent relations more than actual communications of messages or flows of behavior.

The network model is identified by the use of such terms as the "fabric," "tissue," "context," or "web" of human relations. It is characterized by the lack of a necessary center and no relevant boundaries. The lack of a center and openness make it particularly suited to graphically represent sociocultural structures such as myths, kinship, neighborhoods, languages, and markets. Market economies feed mainly on communications, and hop from node to node, along whatever channels are available, with little concern for territorial continuity, central control, and control of boundaries. Immanuel Wallerstein (1974) has constructed a well-known case upon the position between "world empires" and "world economies," which have a network-like structure. He has argued for the historical superiority of the latter. In the same vein, Toynbee (1957) emphasized the open, diffuse, and noncentralized structure of high civilizations and contrasted them with the closed and centered nature of their political degenerations, the empires. Luhmann (1975) attributes to society a network structure (nowadays encompassing the whole of the planet) as he identifies it with the realm of mutual intelligibility, i.e., with culture.

***Criss-crossing Circles.*** This spatial model has been proposed by Simmel, but it is interesting to note that his American translator labeled his "Kreuzung Sozialer Kreise" as "the web of group affiliation," thus arbitrarily transforming the Simmelian metaphor of circles into the more sociologically legitimate and fashionable one of the network (web) (Bendix in Simmel 1955). The model, however, runs deep in sociological theory. It represents every individual as playing several roles, each of which belongs to, or relates that person to, a different institution, social group, organization, or sphere of activity. These are the circles, which overlap and criss-cross every individual in a unique way, and is one of the bases of the emergence of individuality in modern society. The model has been formulated in a microsociological context, but it can be used to explain the confusion, complexity, and unreadability of modern society as a whole. The criss-crossing circles model also lies at the basis of Parsons' thought (1966). He sees the "interpenetration" of social categories, action systems, etc. as the basic theoretical problem of sociology and has dedicated decades to drawing distinctions and boundaries, separating categories apart and then reconnecting them. However, for some reason, Parsons liked to think in terms of rectangles (2 x 2 matrices) instead of circles.

***Concentric Circles.*** This model derives from two of the most universal spatial structures, the center and the circle. It can be found in two very different contexts: the historic (sociogenetic) and the experiential (ontogenetic). In the first, it is used to conceptualize the growth of society. It refers to the "epigenetic process" (diffusion process) by which a society (culture, civilization) is born in a "cradle" (town, region) and then expands, engulfing other social formations, developing into city-states, kingdoms, and empires. Societies (civilizations, cul-

tures) originate in a center and radiate into the surrounding space, like the rings of a tree or the waves in a pond. The circles represent the successive outer boundaries of the expanding system.

In the second context, the model refers to the social spheres of living spaces of the individual. They are small when the person is small, or otherwise limited in movements and thoughts, and they grow larger as the person acquires mobility and horizons widen. This model is used in developmental psychology and in phenomenology. It bears some resemblance to the personal spaces model of cultural ethology, and it has been redefined as the system of "personal shells" or "bubbles" surrounding each individual (Moles and Rohmer 1978). In general, the concentric circle model can be defined as a developmental model applied to the growth of a societal organism, or an individual. In the former, however, the analogy tends toward isomorphism, as societies usually expand over real space (although, of course, not in such nicely ordered sequences) and have a center and some sort of boundaries. In the latter case, the circles represent symbolically the mental maps and the spheres of potential reach, more than the actual territory covered by individuals. The recurrence of such concepts as "social spheres," "horizons," "provinces," "living spaces," as in Schütz, is a cue to the presence of this model.

***Pyramid.*** The most common and comprehensive image of social reality is the pyramid. In sociological theory, social space is defined as the hierarchical structure of positions and statuses, aggregated horizontally in strata or classes by some common feature (wealth, power, prestige) and piled vertically one upon the other. Lower strata are more numerous and therefore wider; the classes narrow as they near the top. The social pyramid is articulated not only in horizontal strata, but also in vertical sectors of activity (economic, political, cultural). Rather con-

fusingly, social mobility between the horizontal levels is called vertical mobility, whereas mobility between the vertical sectors is called horizontal. Mobility on the territorial surface is not called social, but geographical. Social space is an abstract action space, or attribute space, whose relations with physical space are wholly metaphorical, as Sorokin (1957) made clear. The pervasiveness of the pyramidal model in sociological discourse creates many difficulties when it has to be translated into a more "proper" physicalist, ecological concept of social space. Pyramidal society exists only in the minds and books of social thinkers; it bears no resemblance to society as a population in a territory. It is, however, a very powerful metaphor, one that guides social dynamics and even shapes actual social reality. People strive "to get to the top," and shape their buildings and settlements to symbolize their elevated social positions.

***Ladder.*** Finally, it can be maintained that sociologists, as scientists in general, and most lay people too, have a spatial conception of the world "out there" in terms of "levels of reality," superimposed on each other like the rungs of a ladder. The dimensions along which the ladder is stretched can be variously called ~~growing~~ heterogeneity, ~~growing~~ complexity, ~~growing~~ spirituality. At the bottom there is the level or realm of physical-chemical phenomena on which the world of living creatures develops. On top of the biological realm we find the social world of humankind, and finally the cultural-spiritual noosphere. Living systems can likewise be arranged along a hierarchical ladder. In sociology several versions of this basic model can be found: Marx's infrastructure-structure-superstructure hierarchy, or Parsons' hierarchy of environmental, organismic, personality, social, and cultural systems (Parsons 1966).

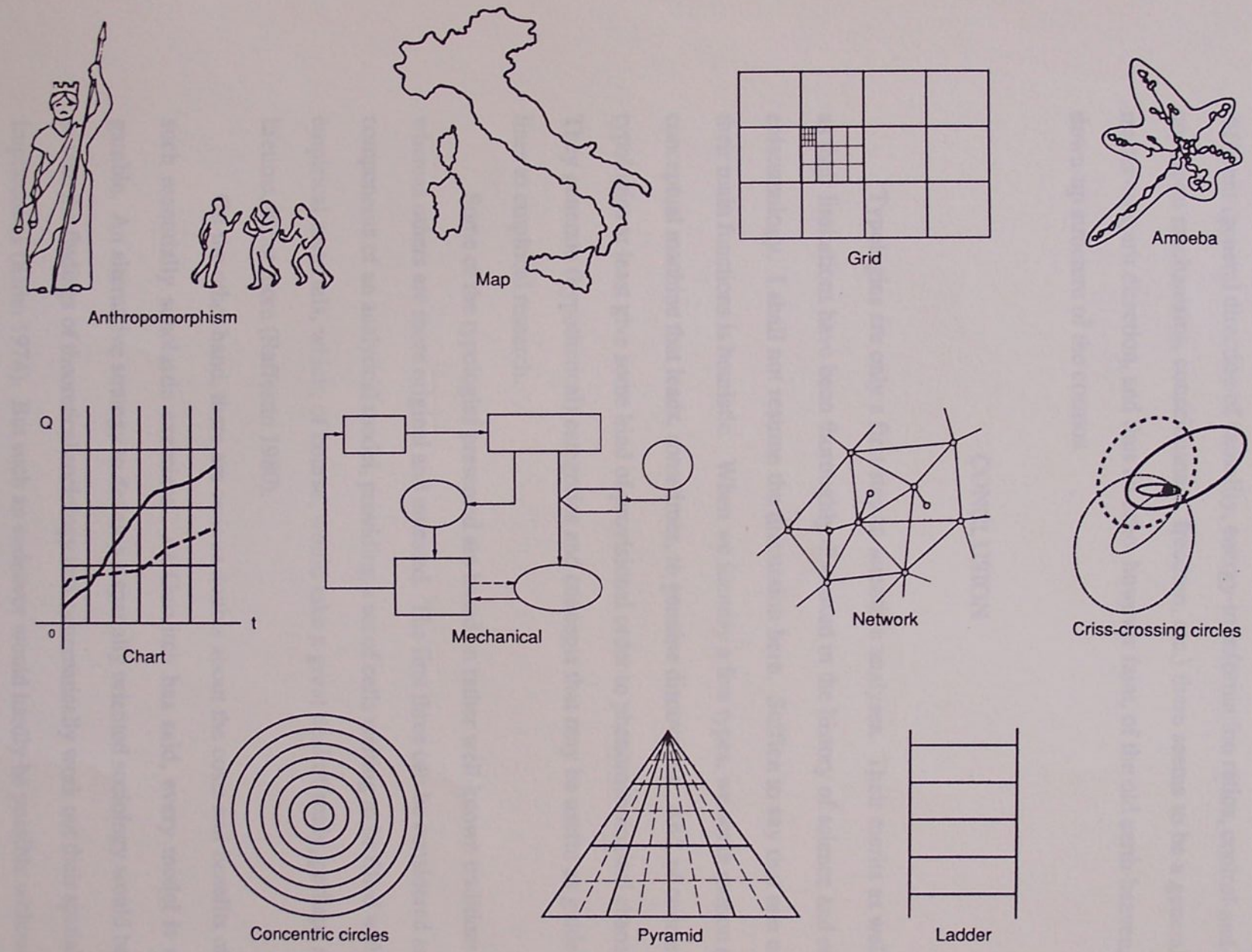


Figure 3. Spatial models of society.

Although the dimensions on which such levels are arranged can be widely different (general direction of causality, energy-to-information ratios, control-and-condition mechanisms, consciousness, freedom, etc.) there seems to be a general matter-to-spirit direction, and thus an echo, however faint, of the old earth-heaven, down-up structure of the cosmos.

## CONCLUSION

Typologies are only a first step in scientific analyses. Their merits as well as their limitations have been thoroughly discussed in the history of science and of epistemology. I shall not resume the discussion here. Suffice to say that one of their main functions is heuristic. When we identify a few types, we set in motion a conceptual machine that leads, sometimes, to genuine discoveries. And, of course, typologies at least give some kind of provisional order to phenomenological chaos. They generate (hypothetical) categories and concepts that may be useful as guidelines to empirical research.

Some of the typologies presented are based on rather well-known traditions, whereas others are more original and untested. The first three can be considered as components of an analytical model, providing a set of cells waiting to be filled with empirical materials, which, of course, would take a great deal of study, perhaps a lifetime, if not more (Raffestin 1980).

On the other hand, there are serious doubts about the costs and benefits of such essentially scholastic exercises. As Gurvitch has said, every model is a gamble. An alternative strategy to develop a spatially oriented sociology would be to take the findings of theoretical sociology and systematically work out their spatial implications (Kuhn 1974). But such an endeavor would hardly be possible without

an adequately developed system of sociospatial concepts and categories to give order to the "facts," as well as a large store of sociospatial facts, phenomena, and referents. This is what has been attempted here.

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