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THE SOCIAL NATURE OF SPACE

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The Social Construction and Sociological Analysis of Space¹

1. THE PHILOSOPHICAL QUESTIONS THAT WON'T GO AWAY

The editors have asked us to cut short with philosophical discussions about space and to get down to more sociologically relevant issues. It is of course a very wise advice, considering the large amount of literature on space which has piled up through the ages. But it is certainly not an invitation to stick to the "scientific" or "positive" notion of space. As everyone knows, contemporary physics is far from unanimous on the subject. Whether space is a thing or substance of its own, independent of material objects, energetic processes and observers; whether it is "out there" or a mental category; whether it can be conceived independently of time, or only fused in the one dimension of spacetime; these are only some of the still unsettled issues in philosophy and in physics (Sklar 1977, Heelan 1983). Philosophical problems are implied in all sociological concepts of space, such as the ones reviewed in this book in B. Hamm's paper. The concept of distance, that an impressive series of space-oriented sociologists, from Simmel to Park to v. Wiese to Hawley have singled out as the basic socio-spatial concept, 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).

We have grown out, at least since Husserl (but really since Poincaré, Kant, and Bishop Berkeley) of the "naïve scientific" tradition of Galileo, Descartes and Newton on space (see, in this book, the paper by Murphy and Pilotta) and have lost its comforting security in these matters. So it seems unavoidable that a more strictly sociological discussion of space be foreworded by a statement of the general orientations we subjectively assume in such regards.

2. GENERAL ASSUMPTIONS ON SPACE

The first assumption is that our proper object of study is the "mesospace" in which man lives and locomotes and which he directly experiences. This practical space certainly displays properties of an Euclidean and Newtonian nature, so that socio-

¹ The author is thankful to the colleagues at the Gorizia Institute, to professors R. Geipel, P. Claval and P. Wagner, and of course to B. Hamm for their reading of the first draft of this paper and their helpful comments.

logists need not be overly concerned with the queer features, such as curvature and temporal relativity, which have been attributed to the macro- and micro-spaces. However the conceptions gleaned from the instrumental exploration of cosmic and sub-atomic spaces can be suggestive for social analysis, albeit only in an analogical and heuristical way. Metapherein is a basic cognitive and communicative process, also in scientific discourse².

The second assumption is that this basically Newtonian and Euclidean mesospace is also utterly human, because it is a reflection, a projection, a creation of the human biological and psychic structure. The way we perceive, conceive and use space depends on our mental and bodily equipment and requirements. As Kohler once remarked, grasshoppers would have developed a very different conception of physics, and, I would add, of geography. Since Uxeküll, it is a cliché that every creature inhabits a life-world of its own. What "saves" this notion from idealism is that all private life-worlds and life-spaces are articulated together in the great system of the biosphere, which gives some type of objectivity and unity to space. This "deus ex machina" of the biological-evolutionary thought may not work for some of the philosophical elaborations on the problem, such as Husserl's and Merleau-Ponty's, whose anti-positivistic views of space may amount to an open defense of subjectivism. Such orientations, however, are no longer so alien to modern science, both social and physical. Do not astronomers nowadays brood on the "anthropic principle" as a parameter in their conceptual systems of the universe, and do not particle physicists, as Morin and Prigogine tell us, use more and more anthropomorphous and even sociological concepts in their research?

A third, closely related tenet is that mesospace, anthropos' space, is logically also a social space, since man is a thoroughly social creature. To begin with, the shape of our body, limbs and face, and especially the structure of our brain, is the product of a long evolutionary development in which the role of social interaction has been crucial. Durkheim stressed that the concept of space is in itself a social concept; but in his days there was no paleoanthropological evidence to support his claim, and his arguments, based on synchronic field data, were inadequate (Konau 1977). But we think that he has been vindicated. In the second place, man's space is structured by his own artifacts, his technological protheses, which are always the product of thoroughly socio-cultural processes. This is, of course, one of the basic notions of modern social (human) ecology, and of most socio-spatial theories at least since Simmel.

A fourth item of this preliminary statement is that social space, though Newtonian in some of the more practical and minute aspects, is also somewhat Aristotelic if considered in a more general, collective, long-term and holistic fashion. The space in which men live is not isotropic and absolute; on the contrary, it is highly differentiated and richly structured (Harvey 1969). Spatial structures, i.e. schemas, archetypes, pat-

² In the last few years there has been a spate of works in philosophy of (social) science rehabilitating the analogical and metaphorical method. For a radical view, see R. H. Brown, *Métaphore et Méthode: de la logique de la découverte en sociologie*, in *Cahiers Internationaux*

terms, categories, symbolic forms are something that straddle the objective-subjective distinction (and those that accrue on it, like "geographic" vs. social space, concrete or behavioral vs. symbolic or psychological, or mental, "real" vs. perceived, etc.). Structures both inhabit our minds and emerge from the reality out there. We project in the world the structures we have in our mind, but in turn such structures have been imprinted in our minds by a long history of interaction with the world, an evolutionary process of mutual reflection both at the ontogenetic and the phylogenetic levels. Slightly paraphrasing the celebrated Churchillian sentence, we structure our spaces, and our spaces structure us.

The main contribution of the present paper will be a classification of such socio-spatial structures.

As it should by now be clear, all the abovesaid amounts to a profession of holistic and transactional (some would call it "dialectical") faith, which emphasizes continuities, interrelations, "coincidentia oppositorum" interpenetrations, and underlying unity arising out of the hypercomplexity of the world (some would call it "totality"), as against all distinctions, categorizations, and analytical carving. But proceed we must, and no intelligible communication is possible without a certain amount of definitions and distinctions, however provisional and relative. So let us begin with an attempt to reduce the complexity of the socio-spatial "problematique" by clearing the field of some related but different concepts.

5. ENVIRONMENT, TERRITORY, PLACE AND SIMILIA

In the languages in which most of sociological literature is written we often find terms like space, place, site, area, surface, territory, locus, position, environment, milieu, used in similar and sometimes synonymous ways (most of the papers in the present book are no exception).

Locus and position seem to convey a more relational meaning, to refer to an implicit opposition between a "point" and a context. Area and surface, though clearly emphasizing extension, rather evoke an opposition to volume. The most important and closely akin terms seem space, environment and territory (with milieu and place being usually synonyms, respectively, of the latter two).

Some authors assign primacy to the space concept, and consider environment just an accretion of tangible material aspects. This may simply be a terminological stipulation, or reflect, more or less consciously, a philosophical stance on the ultimate constituents of reality. As it is well-known, there is a very long tradition which considers reality as being made up of purely spatial configurations, like Democritus' atoms, Galilei's figures, and the geometrodynamists' regions. In this view all the sensorial qualities — hardness, color, temperature, shape etc. — are in some way epiphenomenal, illusory and derived; thus it is proper to take space as the primary and most general concept.

world is made of matter, energy and other "hard" and sensible phenomena, "things" constantly agitated in movements, processes and transformations. This reality shows many different analytical dimensions or aspects like temperature, noise, weight. Spatial extension is just one of them. In sociological parlance, such reality can itself be called space, by which is meant "material, extended substratum" on which social reality is grounded (e.g. Hamm, 1982). More often, the words "environment" or "territory" are used interchangeably with space (e.g. Eyles, this book).

There are historical and disciplinary variations in the use of such terms. Space has been construed, at least since Kant, as the central concept of geography; although in fact for most of its history this discipline has dealt with the description of the earth's surface, i.e. environments and territories (chorography) and the distribution of objects. But there is also a long series of endeavors to summon geography back to more abstract and theoretical concerns, and emphasize its affinity to geometry and physics. Environment has been used in the most wide array of contexts; it means, etymologically, "that which surrounds" any object of attention.

Territory has also been used in diverse contexts. One of the most established is the juridical-political one, where territory is the portion of earth's surface defined by some sort of "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 1974). A second context is that of economics and planning, where territory has been taken to mean the sum-total of natural resources, and the support of economic activities and structures. It must be noted, however, that more recently, and in some cultural areas, economic theory has preferred space ("space" or "spatial economics") and "region" as qualifiers.

A very different, though derived, meaning, has been assigned to territory in the context of ethological studies of animal and human behaviour, where territory refers to the "defended area".

Place has recently arisen to prominence as a central concept in the context of environmental (ecological) psychology, micro-ecology, micro-sociology, and especially psychological and humanistic geography and architectural theory. It means something very close to territory, in the sense that it is bound and valued; but it differs, in general, because the valuation is more of a sentimental and emotional than of an utilitarian nature ("sense of place" "perception of place"). Moreover, it is usually something much more intimate and small-scale than territory, and it is associated with good feelings rather than aggression (Yi-Fu Tuan 1977; Relph 1980; Buttner and Seamon, 1980).

In the present paper (and in other ones: see Strassoldo, 1979, 1983b), we shall take space 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 are the basic spatial disciplines.

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 ("functional", "energetic", "informational", "substantive", "temporal", "teleological" etc.).

4. THE ROLE OF SPACE IN THE HISTORY OF SOCIOLOGY

The present author leans toward the opinion that a fully environmental, i.e. naturalistic, matter-energetic approach to social affairs is generally more important, interesting and fruitful than a purely spatial one; and has focused, and is focusing, most of his research efforts on environmental problems (Strassoldo 1977, 1983a). But he is also exploring the potentialities of a purely spatial approach (Strassoldo, in preparation), although it is not easy to think of spatial relations devoid of concrete spatial objects. However, if it is true that there is a social demand for a spatially-oriented sociology, (urban and regional sociology, social ecology, "Siedlungsoziologie", etc.) the effort seems worthwhile. In the present paper, as in the other, we shall try to stick to the programmatic space-territory-environment conceptual distinction just sketched; although in discourse the distinction may sometime blur³.

Table. A paradigmatic definition of three socio-spatial concepts

Attributes	Category		
	space	territory	environment
Concreteness	0 0	++	+++
Complexity	+	++	+++
Dynamicity	0	0	+++
Analytical	+++	+	++
Generality			
Central sciences	topology geometry	social science	ecology
Central concepts	distance	value	interdependence

³ It might be of some interest to sociologists to note that this terminological stipulation parallels, in some ways, the treatment of this dimension in the development of Talcott Parsons' thought (Konau, 1977). In a first phase, dealing with the most abstract "action theory", he referred to space (if only to belittle its relevance to his own research). In a second phase, while putting together the more complex, but perhaps a little less abstract "social system", he would refer, more sympathetically, to the importance of its "territorial" or "ecological" (in the Chicago school's sense) dimension. Finally, when he fully integrated the "behavioural organism" in this theoretical framework, and stressed the importance of biological and natural factors, he referred

In the present section we shall briefly review the status of space and related concepts in the history of sociological "theories".

Roughly, three phases can be discerned. In the first, from Comte to the early XX century, sociologists had no inhibitions whatsoever to deal with the geographical, physical, environmental and therefore also spatial aspects of social phenomena. This may be due to several reasons, like the low degree of specialization and division of labor among social sciences, and therefore to the influences of anthropology and geography; or to the common positivistic, naturalistic approach, which logically emphasized those dimensions of social reality. Distinctively space-oriented schools emerged, like Le Play's; E. Durkheim drew an encompassing, if unfulfilled, program of a social morphology, i.e. the science of the spatial aspects of society. 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 the underlying spatial relations. The ecological school was influenced not only by XIX century biological ecology and social darwinism, but also by the urban sociology of Georg Simmel. This author was endowed with a distinctively spatial style of thought and produced some of the most brilliant and profound essays ever to be found in the field of "space and society".

The second phase is marked by a reaction against all forms of naturalism and positivism, and an allergy to any hint of "environmental determinism". Under the intellectual leadership of scholars like Weber, Sorokin and Parsons, sociology was redefined as the science of actions and of the values guiding them; more akin to history and culturology than to geography. All the material substratum, the world of "things" (Linde 1972), was written off as "external" to proper sociological concerns, mere "limitation", in the double role of means and conditionings, to the expansion of true sociological substance. During this phase, which roughly covers the 1910-1960 half-century, space and things 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 to "positivist" methodology. Since then the sociological community has learned to survive in a state of complete pluralism, and even anarchy, of approaches, methods, and research interests. Confronted with an infinitely complex and multi-faceted subject-matter (mark the name!), sociology has chosen to remain a non-paradigmatic science, contenting itself with unavoidably partial, local and provisional "islands" of theoretical order in an ultimately unmanageable world⁴. In this effervescent situation, also the spatial approaches have found new niches and gained new dignity and recognition.

⁴ This is at least our reading of the recent literature in sociological theory, where almost nobody in his right senses seems to be producing systematic, all-encompassing treatises (which are confined to the didactic textbooks encapsulating conventional wisdom). The leading theorists of our times (J. Habermas, N. Luhmann, A. Giddens, B. Collins) seem to prefer the essayistic

5. SPATIAL APPROACHES IN CONTEMPORARY SOCIOLOGY

There are at least two main reasons of the growth of spatially-sensitive sociology in recent years. The first is practical, and has to do with the expansion of planning in Western societies. In the effort to upgrade the rationality of their activities, planners have mobilized the support of many disciplines, among which sociology. The design of housing, the planning of towns, the development of regions and nations, also mean the organization of space of all levels and types, from the intimate space of everyday life to the vast and hard expanses of intercontinental infrastructural networks. Thus a growing community of sociologists, confronted with socio-spatial problems, has gone back into the history of the discipline to re-discover the older spatial approaches and has sparked off new ones. Urban and rural sociology have grown and fragmented into such sub-sub disciplines as housing sociology, and merged with architectural studies, environmental studies, regional studies, and so on. Sociologists have joined up with other workers in the field, and especially geographers, economists and psychologists, to develop new interdisciplinary concerns and research interests. In the tolerant climate of the years since the sixties, such cross-breedings and efflorescences do not scandalize anybody any longer.

The second reason is a more theoretical and, if one wills, philosophical or even ideological one. It has to do with the impatience with large-scale theoretical constructs, macro-historical approaches, structural-functional models of large societal systems, and the correlate methodologies based on institutional statistics, official written records, and large questionnaire polls. This movement is inspired by the psycho-sociological tradition of natural observation, introspection, participation, mental or natural experimentation, personal involvement, which characterized such earlier theoretical approaches as symbolic interactionism and such antipositivistic philosophies as phenomenology. The revival of these approaches in the '60 has been fueled by the wave of protest against the "cynical objectivity" of "big science", often perceived as the hand-maiden of big business and big government; it is part of the more or less "narcissistic" and romantic search for subjectivity, individuality, identity, intimacy and meaning which marked the "generation of '68".

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

Working at the micro-level, it is easy to exalt the role of the body, of gestures, of positions, of physical arrangements, of material props. This was already evident in older phenomenology, from which several painstaking philosophical analysis of the meaning of space in human experience had come forth; it was emphasized by the sociological phenomenology of Schutz; and permeates all of Goffman's work. So-called ethnometho-

7. BACK TO TAXONOMIES

The conclusion seems to be that "anything goes"; there is no hope for encompassing rational formulae. But, once again, proceed we must. The feeling of awe in front of the extreme diversity of the world is certainly not new in the history of science (nor in the human experience), and the conditioned reflex of our species in such cases is to start sorting things out into categories and types, on the basis of some criteria of similarity and difference. According to Max Weber, indeed, it is unlikely that sociology can ever progress much further than this most primitive step of the scientific evolution and of theory-building.

It is not possible, in this article, to pursue the issue of the place of taxonomies and typologies in sociological method, which is one of the classic epistemological problems of our discipline. Like everything else, typologies have an ambiguous status/function. They can be used, in a more "positivistic" way, to give some order to gathered data; they can emerge from them, from "the bottom up", and are therefore a tool of inductive positivistic methodology. But they can also emerge from more *a priori*, speculative, deductive mental operations, and be used as a guide for the gathering, ordering and even generation of "facts" and data, or at least of new ideas and concepts which then give form to reality.

It is also close to impossible to judge "objectively" of the "scientific quality" and "use" of typologies especially when we move at a very general and "high" level of discourse. They can be more or less persuasive, convincing, i.e. congruent with the reader's total experience and responsive to his more or less conscious expectations. But their "truth" lies almost exclusively in the consensus of the scientific community, in their capacity to mould perceptions, generate hypotheses, and stimulate "normal" research.

In the following pages, we shall briefly review two types of typologies which are rather standard, and one that seems more original. The first is the taxonomy of social spaces according to their "level" or "scale". The generating criterion here is basically the size (in spatial and numeric terms) of the socio-spatial unit considered.

The second group of taxonomies refers to the "nature" or "substance" of the socio-spatial phenomena. This is of course a very vague, ill-defined criterion; basically, it refers to the diverse types of human behaviours: physiological, instinctual, emotional, mental, speculative, rational, etc.... The qualifiers are legion, and also the proposals for socio-spatial taxonomies of this type are numerous. The one we present here is just one of them, possible ones, and does not claim any special originality.

The third typology regards socio-spatial structures. As it is the less common of the three (although also in this case some precedents can be found) we shall try to elucidate it in the appropriate section.

in the field of socio-spatial studies, the most obvious classificatory criterion has been the size or scale of the group considered. Size means essentially the number of actors; but due to a number of bio-psychic and ecological constraints, there is some correlation between number of interacting persons and the space they occupy (Barth 1978). Small groups usually occupy small spaces, and *vice versa*. Of course, transport and communication technology have added drastically new parameters to this equation; close friends can live very far apart, while large groups can be concentrated in very restricted spaces. But there are limitations to such flexibility; moreover, 99% of the human experience has been lived in the "natural" circumstances, where the correlation between number and space holds.

Several typologies have been proposed in this regard. Some are simple dichotomies, contrasting small groups with large-scale societies (face-to-face relations against formal-secondary ones, local community against wider society, etc.).

Another approach focuses not on groups, but on some other unit of analysis of explicit socio-spatial nature. Social ecologists often employ to this purpose the term community, and enlarge its semantic field to range from the family to neighbourhood, town, region, nation, international systems. Parsons accepts this denotation in his theoretical system, defining community as the spatial aspect of society. Other schools of thought employ a variety of names, drawn from natural language or from the administrative subdivisions; thus, Chombart de Lauwe (1959) suggests a hierarchy of social spaces going from the familial to the neighbourhood to the "urban sector" and beyond. So does, in his footsteps, A. Moles (1978). Others suggest "behaviour setting" or "situation" for the lower end of the nested hierarchy of socio-spatial systems, "natural area" for the middle, infra-urban level, and the "urban-regional" space for the upper level; thus integrating the traditions of ecological psychology, social ecology and other socio-spatial disciplines (Hamm, in this book). Another socio-spatial unit of analysis employed is the concept of settlement, on which C. A. Doxiadis has built an imposing set of fully-developed hierarchies and taxonomies, from the single human being to the "ecumenopolis" (Doxiadis 1968).

The basic problem in these matters is that society is basically not a hierarchy (or a mosaic, or a tree) of self-contained local communities, but a multidimensional ensemble of interconnected open networks of communications.

For a number of considerations we cannot argue here⁵, we propose that social groups be classified according to the following typology, which combines to some extent, and not at all easily, the spatial (size-scale) and a more substantive (organizational, functional) criterion:

- 1) individual,

⁵ They will be found in R. Strassoldo, *Spazio e Società. Elementi per l'analisi di una di-*

- 2) small groups (dyads, families, friends, encounters, etc.),
- 3) formal organizations (of all sizes),
- 4) small local communities,
- 5) urban and regional communities of all sizes,
- 6) nation states,
- 7) transnational systems (societies, civilizations, cultures),
- 8) mankind.

9. TYPES OF SPACES

A second criterion for classifying socio-spatial phenomena can be dubbed the "type" of space. In the history of social sciences we find many attempts to qualify different types of spaces. One of the best-known scholars in this field, P.H. Chombart de Lauwe has even stated that the noun space is meaningless unless we qualify it with an adjective (Chombart de Lauwe 1979). Many such categorizations are simply dichotomous such as geographical/psychological, banal/functional, objective/subjective, concrete/abstract, proper/metaphorical, cognitive/operational, etc. There is also a number of more complex typologies; one of the most current in sociological literature has been proposed by A. Bentley (1954), according to whom spaces can be 1) vulgar, 2) mathematical, 3) physical, 4) social, 5) sociological. Of particular fecundity in this respect has been the French tradition of M. Halbwachs, F. Perroux, P. H. Chombart de Lauwe himself, and H. Lefebvre, each of whom has suggested several different taxonomies. In another cultural context we find a genealogy of taxonomies linked with the German philosopher E. Cassirer's (1923-1929) tripartition of 1) organic space, 2) perceptual space, 3) symbolic, abstract space. The most celebrated of these offsprings, at least in one of the disciplines more concerned with spatial analysis, i.e. architectural theory, is the fivefold partition proposed by C. Norberg Schulz (1972), according to whom space can be 1) pragmatic, 2) perceptual, 3) existential, 4) cognitive, 5) abstract. Another, similar one, well-known among geographers, is Yi-Fu Tuan's (1974).

Yet another empirical classification of broadly social spaces is according to the disciplinary perspectives, such as economic spaces, cultural spaces, political spaces, psychological spaces, etc.

To this group belong M. Castell's tripartition, mentioned also in J. Eyles' paper in this book (1) economic-rational-utilitarian-space; 2) political space; 3) ideological-symbolic-expressive space) and the five types of "spatial forms" mentioned by B. Jałowiecki, also in this book (1) production, 2) consumption and reproduction, 3) administration and management, 4) symbolic, 5) exchange).

In turn, we propose here a six-fold classification a) ethological spaces, b) personal, c) lived, d) symbolic, e) ecological, f) organizational which is of this latter type, but has also some resemblances with Norberg Schultz's. It would not be too difficult to explicate the "rules of transformation" between the two or three codes, but it does

First, the proposed typology is, at this stage of the research, a mere set of pigeon-holes for materials which seem to have some affinity and interest. Little attempt has been made, as yet, to systematize the materials within the boxes (theoretical reductions and generalizations, etc.).

Second, each type is characterized essentially by the theoretical and disciplinary approaches peculiar to it, but with wide overlaps, since the same socio-spatial phenomenon can be treated in different theoretical and disciplinary perspectives. This is a general problem of classification in social sciences and there is not much that can be done about it.

Third, the chosen succession of types has some resemblance to a scale of ascending rationality, or at least intentionality. Ethological spaces are grounded in our biological nature, and perhaps in our "old-reptilian" heredity; personal spaces are also rooted in psychological structures, but as moulded 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, i.e. with distinctively human culture; the difference between the two types being that lived spaces are more individual, private, and subjective, while the second 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; but the spatial patterns thus emerging are not the outcome of conscious plans; they are mostly unintended effects. Finally, organizational and political spaces are intentionally pre-figured, manipulated, "produced" and structured by corporate actors in view of their goals.

Fourth, there is no special category for social space in this typology. The nature of social space results from the fusion of the above-mentioned "sectoral" spaces. This reflects a view of sociology as a "centre-less" discipline, one that results only from the interaction among sub-disciplines⁶.

Fifth, to the extent that this typology reflects the scientific and academic division of labour, it also reflects the two general principles underlying that division: one is the practical utility of disciplines, their problem-orientation; the second is a general theory of reality, or world-view (or ideology) prevailing in the Western mind (the two principles, of course, are not unrelated).

Sixth, it is probably true that the full elucidation of the contents of this set of boxes is "beyond the competence of any single author" (Hamm, this book). But it may be worthwhile at least to begin. In the following pages we elaborate a little on them.

⁶ It may also be added that the six types can be regrouped along the late T. Parsons' outlines of the action systems: ethological spaces refer to the behavioural organism, personal and lived spaces to the personality system, symbolic spaces to the cultural systems, while ecological and organizational spaces both refer to the social system, in two of its specifications: the adaptation (economic) and the political (goal-attainment) subsystems. Of course, several such

A much wider, although of course far from "complete", treatment is under way (Strassoldo, in preparation).

a) *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 large evidence on the "natural" and "innate" (i.e. beastly) character of such behaviours. Another important phenomenon is the spatial structure of attention.

The literature here is mostly ethological, and paleoanthropological and neuro-psychological, although extensive sociological reviews are also at hand (Malmberg 1981).

b) *Personal spaces*

As already warned, the difference between ethological and personal spaces is more in the theoretical (and ideological) approaches and research methods than in substantive issues. Here too territoriality, privacy, 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, i.e. psychologists (Altman 1975, 1978). Here belong also the studies of the meanings and functions of interpersonal distance (proxemics), the role of spatial arrangements of actors in small-group setting (Steinzor effect, eye-contact and leadership, behavioral settings, etc.) and the experimental studies on the perception, cognition and evaluation of spaces at a small scale (Sommer 1968). These studies are contiguous with the large literature on environmental and ecological psychology, perception geography etc. The distinction between space and environment offers one criterion for drawing the line.

c) *Lived spaces*

Also the substantive material collected here overlaps largely with the one 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, since the concept of lived space has been circulated by philosophers (Böllnow 1976) and largely employed by "humanistic" geographers, who mostly concern themselves with very small-scale spaces (Yi-Fu Tuan 1977). There is also a sizable microsociological literature dealing with such phenomena and also with territory, privacy, proxemics, behaviour settings, use of space etc. (Goffman 1963 etc.); which can be indifferently accommodated here, on account of its early phenomenological methodology; but which has evolved toward the more empirical and experimental side, and thus could be also ascribed to the

d) *Symbolic spaces*

This is a highly diverse category. It comprises, first of all, the conceptions of space of pre-scientific culture: cosmologies, mythical geography, and sacred spaces. In pre-modern society, as it is well-known since Durkheim, only the sacred is real, and therefore sacred spaces are the most important of all; the whole of socio-spatial reality is structured and given meaning with reference to the history of the gods (i.e. the world: cosmogony), 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, antropologists (Eliade 1949) and archeologists, as well as scholars interested in urban and territorial patterns (Wheatley 1971).

A second group of materials has to do with the residual mythical conceptions of space that can be found in modern society. These are of two main sorts: geopolitical myths (state-ideas, myths of territorial unity, etc. (Erikson 1981) and the myths of mass-culture, especially with regard to tourism (holy places of touristic pilgrimages, maximization of distances covered, etc.) (McCannell 1977).

A third group deals with 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 position 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"⁷. This group, however, does not extend to the systems of purely symbolic spatial languages, such as "eiconics", graphics, etc., as devoid of sociological substance (which architecture and town planning are not).

e) *Ecological spaces*

By ecological spaces we mean the phenomena traditionally studied by social geographers and human ecologists of the Chicago type: the pattern of human spatial behaviour and of behaviour in space, at a meso- and macro-scale (from the small neighbourhood to regions and beyond); to be approached with appropriately quantitative and formal methods. The emphasis is on actual aggregate behaviour and its effects on the organization of social space: the emergence of natural areas, the spatial

⁷ The semiological approach to architecture seems to be generally acknowledged as a mainly an Italian contribution to modern culture. Among the mainly known promoters, G. Dorfles, U. Eco, B. Zevi, R. De Fusco. Its heydays however seem passé, and doubts on the fruitfulness of the approach now prevail among more scientifically-minded urban theorists (Rapoport 1980, 1981).

patterns in the growth and decay of urban systems, the distribution of activities in space, etc. Among the basic concepts are distance/accessibility; movement costs; density and ecological carrying capacity of regions; etc. Here also belong the formal models for the interpretation of such socio-spatial phenomena: urban growth models, gravity models of migration, central place theory, theory of allometric growth, etc. Besides geography in its various specializations (social, economic, urban, population, etc.), here also spatial economy and regional science are considered. 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 behaviours and the consequent patterns here considered (Kuhn 1974).

f. 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 on space, articulate, use and manipulate it for their purposes. Intentionality and (some sort of) rationality are the defining aspect of this category. Among the basic features of such spaces is 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). The most important inputs to this category then come from political geography and strategy⁸. But since all kinds of organizations have partly similar spatial structures and problems, macro-sociology is also relevant here.

10. SPATIAL STRUCTURES (OR DIFFERENCES)

A third criterion for setting some order to socio-spatial phenomena would be that of spatial structures. We have already mentioned them in the opening statements. Social space is organized — objectively and subjectively, tangibly and symbolically, practically and conceptually, as we have tried to show — according to a number of socio-spatial schemas (models, patterns, categories, symbolic forms, archetypes), which we chose there to designate with the generic name of structures.

⁸ Political geography and strategy are important social sciences, although their association with a very unpleasant phenomenon like violence, elicits avoidance behaviour and embarrassment, if not outright hostility, from most sociologists. But their very strong socio-spatial substance makes them an essential component of the sociological approach developed here. Among the few leading sociologists that incorporated geopolitical and strategic theories into their work is R. Aron; of the junior ones, E. Konau (1977). The present author has also done some work on the subject (see *Ecologia delle potenze*, in Strassoldo 1979; *idem*, *Geopolitica, strategia*

We cannot here even touch the very complex issue of structuralism, the epistemological status of the approach, the nature of structures, etc. In order to avoid the quagmire, it may have been wiser to simply speak of spatial differences or differentiations, which is as elemental a concept as one can think of. Spatial structures, or differences, are of various types and origins; some can be traced back to the physiological make-up of human beings; other to deep-seated evolutionary and historical experiences. Some of them are ubiquitous and charged with much "energy" (as Jung would have it), others seem much less capable of arousing strong emotions; still others seem less widespread, yet general and interesting enough to warrant mention here. Some are very elementary, emphasizing just one spatial relationship, others are more complex, self-contained, and full of meanings; these latter are called archetypes. Some are easily grasped intellectually, other lie deeper in our psyche.

So far as I know, they have never been treated explicitly and systematically in the sociological literature; so we shall deal with them in some detail. Some precedent can be found in theoretical architecture, as in C. Norberg Schultz's triad of a) centres, nodes or places; b) directions and paths; c) domains. This set of course recalls immediately the Euclidian triad of point, line and surface; but it is to be found also in the attempts of a "theory of figurative arts" such as W. Kandinski's, in the Gestalt psychology, and in the psychology of vision generally. Its best-known empirical application in the socio-sphere, has been that of K. Lynch's typology of urban structures (nodes, landmarks, domains, districts, paths, barriers) (Lynch 1961, 1981). But it must be recalled that G. Simmel, in a famous page on the general features of social space (Simmel 1908), mentions centredness, boundedness, distance and fixation, which can be interpreted (the page is rather cursory) as corresponding to some of the above mentioned spatial structures.

a) The centre

Although it does not seem possible to find any kind of orderly relationship among the structures, and also their number is certainly debatable, we are inclined to think that one of the most important is the centre. It is so important, in fact, that even some prominent sociologists have elaborated fully on it (Shils 1975; see also Murphy and Pilotta, this book). Space is hardly imageable unless we focus our mind on a centre (at least us Westerners. It seems that Orientals have less troubles) (Maruyama 1980, Berque 1982). This may be due to the physiology of vision (foveal vision) and to the fact that our sense of space is largely structured by our visual faculties; or may be due to the phylogenetic experience as social primates, whose groups are structured around "centres of attention" (Chance and Larsen 1976). Be that as it may, centredness is certainly an ubiquitous feature of cosmologies and other large-scale cultural systems, as E. Cassirer, M. Eliade, E. Panowski, P. Wheatley, and many others have shown. The centre is highly charged with symbolic meanings (it is God, the origin of the

b. *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 endowed with very high pregnancy, as it divides social space in strongly asymmetrical parts; the inside and the outside, the us and the they, the ingroup and the outgroup, the figure and the ground, men and barbarians, the object and the context, the system and the environment, etc. The boundary too can be imputed to different sources; the territorial defense behaviour 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; if open and moving, the corresponding spatial structure is more like a frontier. According to many authors, boundaries are even more primitive and important than the center, which can often be shown to be a later consequence. 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; N. Luhmann is currently the best known propounder of a sociological system theory based on this notion. Many others have emphasized man's proclivity to detect, project and impose demarcation lines on an otherwise confused reality. The present author is hard put to make up his mind on which of the two, the centre or the boundary, are the most important socio-spatial structures. The reader is kindly referred to the author's previous rather extensive papers on the subject (Strassoldo 1973a, 1973b, 1977a, 1977b, 1979, 1980, 1981, 1982).

c) *Verticality: up and down*

Other structures are clearly rooted in human corporeity and its relations to universal features of the environment, like gravity. As Aristotele insisted, up and down is a basic spatial difference. It has easily become laden with moral meanings; the reason being that some of the best things, like the sun, are located high, and that life has a general tendency to grow up. Up go the more intangible matters, like air and vapor (the spirits) and down goes what is crass and dead. In general, then up is good and desirable, and the contrary applies to down (Yi-Fu Tuan 1974). When men 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 higher up than lowlier ones. This dimension easily become metaphorized, and the whole society can be conceptualized as a pyramid, with upper and lower classes.

d) *Front and back*

There are then two binary structures which are perhaps less important because they are relative to contingent positions of persons. One is front and back. Generally speak-

tant organs are placed on the "forward" end. Front is then more important and "good" than back. In man, front takes the symbolic meaning of progress; it also is the seat of social interaction and confrontation also of hostile nature (war's front); it is the public side, as against the more private back; 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. Cities also have sometimes been characterized as having a front and a back (Yi-Fu Tuan 1977; Rapoport 1977). In modern sociology, the importance of the front and back regions of social interaction has been thoroughly elaborated by E. Goffman, taking his cues from the dramaturgical model (frontstage and backstage). In societies which entertain an ideology of progress, the vanguards pride themselves to be at the "front", and vituperate "backward" people.

e) *Laterality: right and left*

The other antinomy issuing from the asymmetries of the human body is right and left. The great majority of men have a natural tendency to use and exercise the right arm more than the left; the former becomes then the "good" one. In many languages right means also straight (not crooked), true and honest; conversely, left is "sinister", awkward, 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 term has in traditional and common, discourse, and have also managed to impose a reversal of the moral meaning on large sectors of society. It has been suggested that this has been possible by somehow reviving the two most notable cases in which left was considered good and right bad: 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; so also the moral association of right and left were reversed.

f) *Distance: near and far*

Perhaps the most popular spatial structure in sociological literature is near and far, close and distant. Drawing on natural science analogies (with the behaviour of electro-

in terms of approximation and distantiation, attraction and repulsion (v. Wiese 1924). Love and solidarity demand cohesion and intimacy, hostility and contempt result in estrangement, detachment, separation, withdrawal. Like people tend to congregate, and strange people tend to be kept at the margins. Social distance naturally translates into spatial distance, as many ecological studies show, both at the micro- and the macro-levels; the reverse is also true. This seems one of the firmest findings in space sociology. Intimacy is usually given a positive moral evaluation, and detachment a negative one; the first is associated with warmth and love, the second with coldness and rationality. But in some circumstances, the opposite is true. Distance has been widely studied in geographical, sociological and regional-science literature, so we need not elaborate the point any further here.

g) *North and South*

There are then two polar antinomies deriving not from the biology of the human body, but from the historical-geographical circumstances of the greater 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 some national levels 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, in our collective soul.

h) *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 usually conceived itself as a bulwark against "oriental despotism" of the Persians, the Huns, the Turks, the Russians, the Reds, and the Yellows.

There are also ancient observations (Herodotus, Bis. 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, were the cycle should have run full circle, and the Far West meets the Far East. But of course all this is very speculative and very Eurocentric. Other high cultures may entertain quite different conceptions of the East-West polarity.

i) *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, (father)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 defence; 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, it has been the object of many studies of ethological, psychological, geographical and sociological nature, so we shall not dwell here further.

j) *Path*

Man is a homing creature, but also a roaming and restless one. So another important socio-spatial structure is the path, the direction, usually manifested in linear forms — the trail, the river. Open-ended lines seem naturally to suggest movement, to function as arrows. This has important effects on figurative arts (linear perspective, etc.).

k) *Door*

Georg Simmel has drawn our attention to the important meaning of doors and bridges as universal spatial structures (Simmel 1957). They are superficially similar, but carry some crucial differences. The door (gate) is what connects the inside and the outside, home and the world; it permits, filters and controls the exchanges with the environment and is therefore a vital necessity 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 architectonically in highly dignified and imposing forms. In the foundation rites, the gates are interruptions of the furrows, to signify the continuity of earth's surface.

l) *Bridge*

On the contrary, bridges are structures that artificially link what was naturally separated, like the two banks of a river. They do not mean continuity between outside and inside, but the joining of different domains. Like the walls, but for the opposite reasons, they are a violence to nature and must be continually justified and consecrated

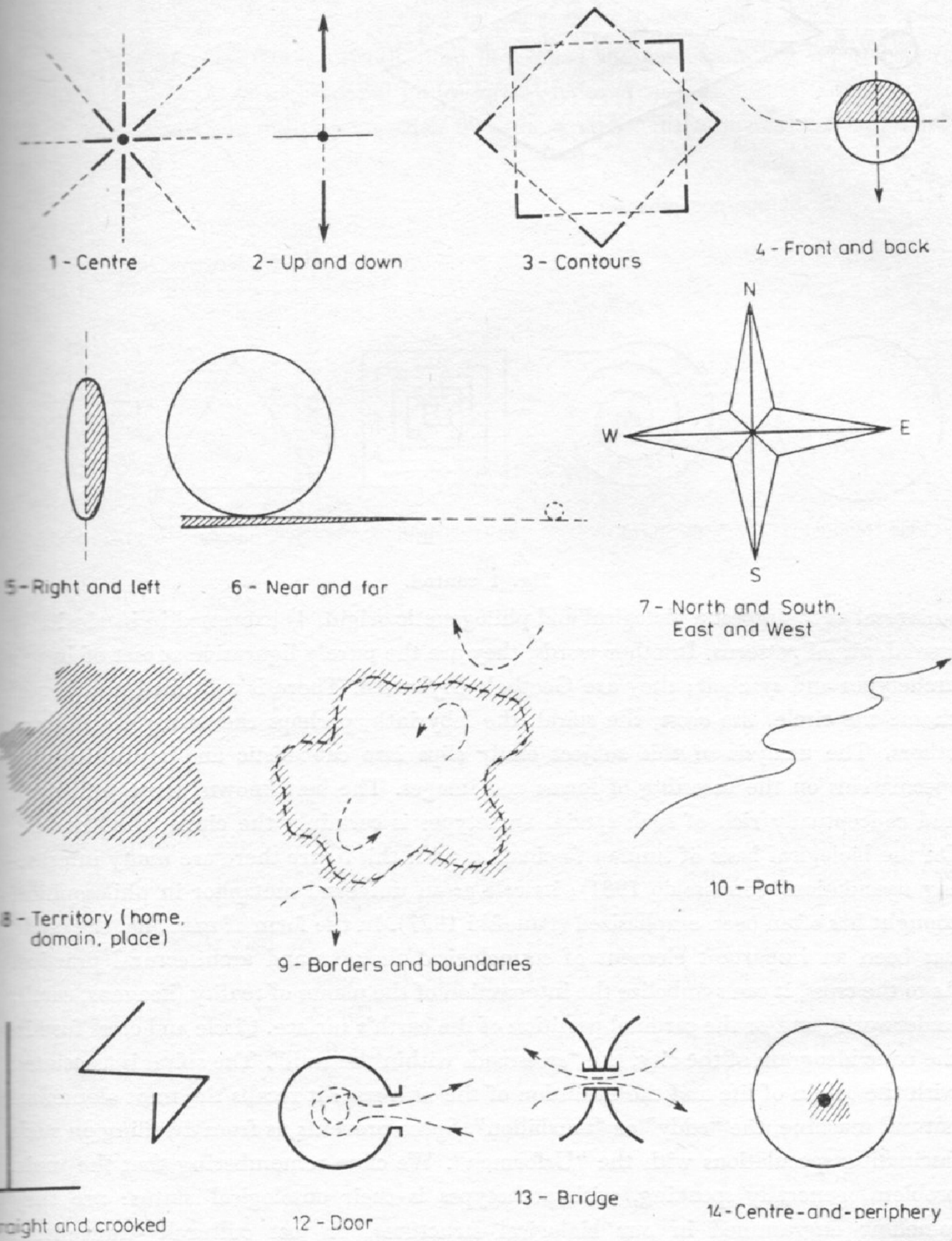


Fig. 1. Spatial structures and archetypes (continued overleaf)

ritually. When the two systems or domains grow into an integrated unity, the bridge or junction may develop into a centre of the new encompassing system. Also on these latter structures we have already written elsewhere (Strassoldo 1971, 1973, 1981a, b).

m) *Composite structures*

Beyond elementary spatial structures there is a number of structures emerging from their combination. Thus from the combination of centre and up/down there emerges the great cosmological machine of heavens, earth and underworld, connected through the world axis; certainly one of the most common worldviews, and one which lies at the basis of many architectural and urban-territorial achievements; to the formal, if partly occult, rules of geomancy (Pennick 1979).

From the point of view of the believer, of course, this structure is not composite at all; on the contrary, it is the simplest, most elementary and unitarian one — it is the heavenly circle, the Mandala, — of which all others are but elaborations and reflections, more or less pale and distorted and contrived. What we have cynically called the cosmological machine is the only true reality, the source from which everything else proceeds; the spatial arrangement of society is a mirror of the cosmic structure, every house and wood is a temple, a replica of the world axis mediating among the cosmic partitions.

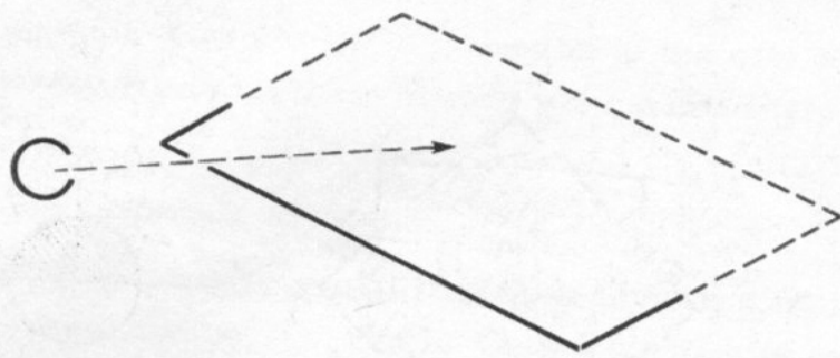
n) *Sub-elemental structures*

As in the physical realm, also space-structural elements can perhaps be split. So the “territory” 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.

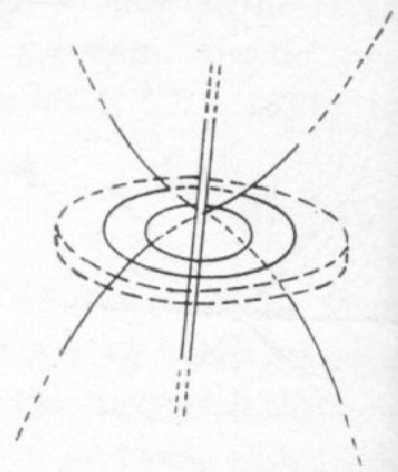
This is one interpretation we can offer of the “refuge-prospect” structure discovered in Western landscaping, both pictorial and real (Appleton 1975). Refuges are the intimate, cosy, shady, secure, uterine retreats. Prospects are the broad sunny vistas, the panoramas. What is peculiar in the refuge-prospect structure is the visual relationship between the two; the occupant of the refuge must “see without being seen”. This Appleton imputes to the long anthropic evolutionary experience of savannah hunting life and discovers not only in landscape architecture and painting, but also in some more general patterns of residential preferences: “places with a view”, “heights” etc. (Alternate interpretations are also possible: refuge-prospect can also be seen in terms of centre and frontier).

o) *Spatial archetypes*

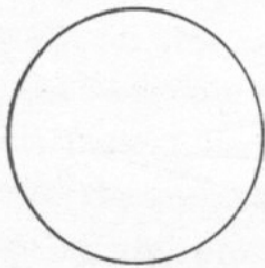
We have often used the term archetype. We take it to mean, in the present context, the spatial structures characterized by 1) large and complex fields of semantic associations, 2) touching very deep and important psychic chords, 3) so primitive, diffuse and



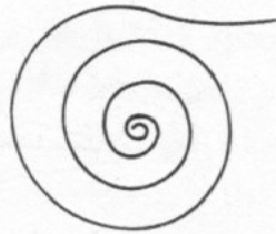
15 - Refuge-and-prospect



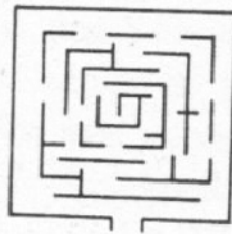
16 - Heavens, earth, underworld and world axis



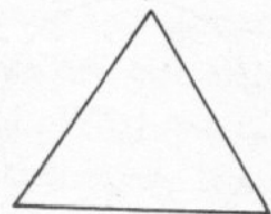
17 - Circle (Mandala)



18 - Spiral



19 - Labyrinth



20 - Triangle



21 - Cross

Fig. 1 contnd.

universal as to suggest a biological and philogenetic origin, 4) expressed in intrinsically spatial, visual patterns. In other words, they 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, perhaps the triangle and some others. The analysis of this subject easily slips into cabbalistic 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. On the biological basis of human fascination with this figure there are many interesting speculations (Strassoldo 1981); its role as an universal metaphor in philosophical thought has often been emphasized (Panofski 1927). In the form of mandala, the circle has been an important element of cosmological thought and architectural practice. As to the cross, it 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 "tourbillon". Space prevents us from dwelling on such fascinating speculations with the "Urformen". We close remembering that the main problem, generally speaking, with archetypes is their ontological status: are they somehow engrammed in our biological structures, or just culturally-transmitted ideas or, still, simple notations? (Laponce 1975). From the point of view of the present paper, however, the problem is another: are they structures in open space, or are they not rather self-enclosed figures, i.e. objects? We must leave here the matter...

1. THE MODEL ASSEMBLED

We have yet to make the final step in our itinerary: the assembly of the whole model.

We have proposed three criteria, and developed the corresponding set of boxes: a) levels (scale, size) of socio-spatial grouping; b) types of spaces; c) spatial structures. These dimensions can be put together to form a tridimensional analytical grid, as in Fig. 2.

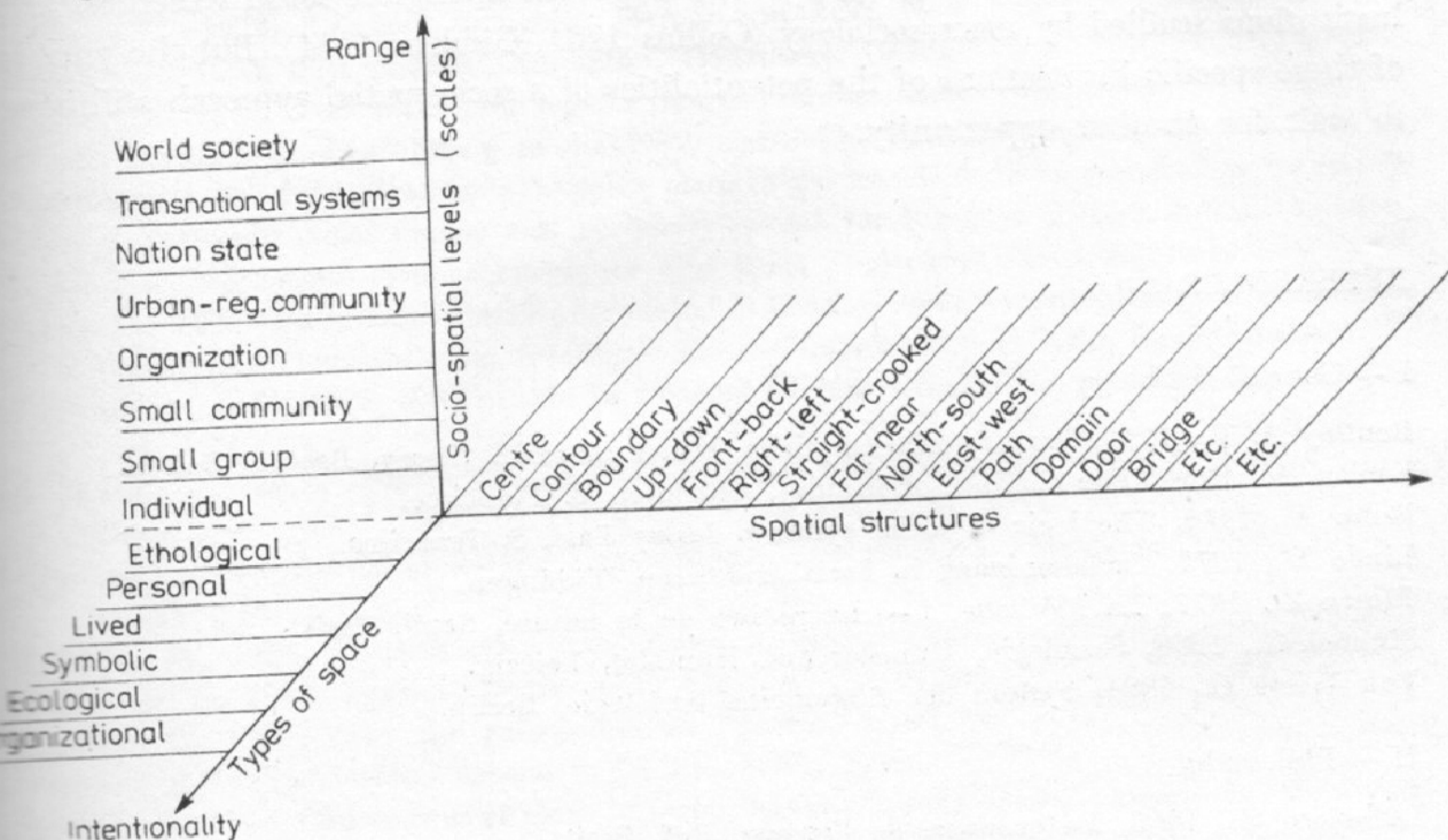


Fig. 2

We shall not argue here the virtues and the perils of such analytical grids in general, nor of this one in particular. It certainly has no ontological status whatsoever. It can be used as a checklist, a gadget to stimulate curiosity and the search for data to put into the cells. Each socio-spatial phenomenon should find an opportune location in the matrix. The model is a machine that could help to put some order in the large amount of socio-spatial data. We do not yet know. It depends on further use, hopefully also by other scholars. As Gurvitch once remarked, every theoretical model is a gamble. We only hope this one will not turn out to be just a jumble.

12. CONCLUSION

What we have done here is essentially a review and a classification of a large body of interdisciplinary literature relevant to the problem of social space. This inevitably forced us to stress generalities, problematics and holism at the expense of specific

very interested, for instance, in the late C. A. Doxiadis' effort to develop a systematic socio-spatial science by overhauling the duality man/space or society/city, and taking as its unit of analysis the settlement, i.e. the indissoluble unity of man, society, artifacts, and environment (Doxiadis 1968, Strassoldo 1983). In the present days, two leading theorists are suggesting that the physical structuration of spaces can be the key to the solution of one of the more fundamental problems in contemporary sociology, i.e. the transition and articulation from the concrete, small and simple social systems studied by microsociology, to the large but intangible social structures and institutions studied by macrosociology (Collins 1981, Giddens 1981). But the pursuit of these specific illustrations of the potentialities of a socio-spatial approach will have to wait for another opportunity.

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