THE FORM OF THE CITY: SOME CONTRASTING PHILOSOPHIES

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From the dawn of history, man has been a creature apart, constantly striving to lift himself above his animal state by sparks of superior intelligence. His ability to think and adapt may have added a certain undefinable distinctive urge towards order and simple geometry, arising also from the fact that all the animal and vegetable world surrounding him sprang from basic forms and processes. Once primitive man emerged from his cave, altered requirements of shelter, survival and food compelled him to adapt his environment as never before. The moment man wove some artificial pattern on the crust of mother earth, whether for crops or ritual, a new dimension was established between his geometry and the natural landscape. Whether regular or irregular, beautiful or chaotic, the first primitive group settlements were man's first steps in spatial organization and built form. Thus the geometry of man versus the biology of nature is an exciting factor in the recent history of our universe. Zucher (1959) speaks of, "mankind's generic urge for order and regularity in contrast to the chaotic growth of nature".

Arising from this introductory paragraph, it will be seen that "form" is an elusive term, which has been used at various times to denote shape, geometry or process, the sum of evolutionary forces acting in the biological world. Unlike the simple form of a work of art or an artifact of society, an urban environment, together with its constituent human population, is so complex that accurate description depends on information regarding the underlying forces. Even if urban form can be described in terms of deterministic forces or processes, the task of identifying and synthesizing them is formidable. Some general definition of form is now called for, before the other components, "urban" and "philosophical" are used to modify and qualify it.

1 DEFINITION OF FORM

In the 13th and 14th Centuries, form referred to the external, morphological aspects of an object, as well as its aesthetic attributes, The perceived structure or image of an object was divorced from its imputed aesthetic.

In the early 19th Century, the questionable division of form and content gave rise to theories based on two concepts: the rational, real and objective versus the non-rational, ideal and subjective. The split between the ideal and the realistic was consolidated by separate education for arts and sciences, introduced at the end of the 18th Century. First the Ecole Polytechnique was established in Paris and then the Ecole des Beaux Artes. In 1917 D'Arcy Thompson published *On Growth and Form* (Bonnet 1961) on the environmental factors limiting the size of various organisms and their frequency of movement:

> "Any portion of matter, whether it be living or dead, and the changes of form which are apparent in its movement and growth, may in all cases be described as due to the action of force ... *the form of an object is a diagram of forces*" (author's emphasis).

To the musician form means themes, instrumental forces, time signatures and keys, while an astronomer thinks of the composition of galaxies and the forces of light-years. To the choreographer form may mean the fusion of movement, music, colour and spatial sequence.

2 NORMATIVE AND CULTURAL INFLUENCES ON FORM

The role of culture in shaping attitudes towards form is important, because one can often find a parallel between definitions of form and current philosophies. The ancient Greeks were among the first people to study form from a philosophical point of view. Plato believed that values were pure form while Aristotle distinguished between form and matter. The Greeks conceived the universe as a rational, ordered pattern of events, and it is not surprising that they made great advances in mathematical form such as geometry, algebra, trigonometry and philosophy. In urban form, Hoppodamus of Miletus introduced the "rationality and absolute regularity" of the gridiron plan from Egypt and the East (Van Zyl 1963). Romanticism, first a literary movement, produced transcendentalist attitudes in art, architecture and urban planning. Futurism began as a positive orientation to modern life and ended with forms expressing the essence of speed and power. Phenomenology, a revolutionary philosophy of the early 20th Century, grew out of Darwin's evolution and was concerned with the essence of things, as reflected in the organic form of many plans.

The historian is well aware of the need to show correlations between socio-economic forces, the philosophical attitudes and the physical environment prevailing at a particular period in time. Sir John Summerson (1966) suggested the magnitude and importance of the necessary effort:

> "It is the study of urban form as a resultant of complex social, psychological and economic forms (forces?) which is the essence of the kind of history I am postula-

ting."

This definition would come closer to my own view, if we substitute the word "forces" in the second line. From a general definition of form, the argument has moved into a more specifically urban context. There can be no universal concept of urban form, and so many branches of knowledge have described the city, that it would be presumptuous to be original or comprehensive.

3 TOWARDS A DEFINITION OF URBAN FORM

Urban form refers to the density and distribution of activities as a function of locus in the urban area. Fleischer's definition (1966) emphasizes both the spatial and the functional, without any normative overtones. Surely there is a richer view of urban form?

> "Urban form describes the relationships which exist between the components of the urban system. It may be both physical (spatial) and non-physical (aspatial). The residential form of the city may be described in physical terms, while the economic form of the city may be described in non-physical (aspatial) terms."

Batchelor (1968) introduced the important concept of "system" with its input-output-feedback connotations for the city. Furthermore, he is emphasizing a balance between form and process, the ideal and the realistic. In the previous definition of form we have "the diagram of forces" in the background. Indeed, the spatial arrangement of the city is by no means a closed system. Normative and cultural influences must also be taken into account, and a Mumford (1938) definition of urban form would include non-physical (aspatial) aspects.

> "The city in its complete sense then, is a geographic plexus, an economic organization, an institutional process, a theatre of social action and an aesthetic symbol of collective unity."

These definitions of Mumford, Summerson, Fleischer and others show that terms are needed to build a bridge between the spatial and aspatial concerns of urban form. When urban planners talk of "guiding development" they usually mean spatial organization, e.g. in May 1970 the government of Ontario produced its *Design for Development* in the Toronto-centred region. Apart from alliteration in this title, the word "design" is significant, as it seems to suggest a synthesis or policy statement on desirable forms and functions in that urban region. However, philosophers, sociologists or political scientists might have a very different, aspatial view of urban process, more analytical or abstract and overlooking design of any sort. In our "fundamentally democratized" society (Mannheim), it is important to relate values and aspects of the physical environment as held by the urban community at large. Although values tend to be vague and elusive, in conditions of urban growth and change they need to be articulated. Assisted by the philosopher, planner or politician or by social animation, the urban community may come up with a set of goals (input), which may or may not end up as a physical form (output), depending on the intervening feedback!

In an approach to spatial structure, Foley (1964) and the Berkeley group use terms and definitions which are pertinent to the themes of this paper. Their terminology includes key words and combinations as follows: "spatial and aspatial", "form and process" and the trio, "normative, functional and physical". Here is how they distinguish between "spatial and aspatial":

> "*Spatial* refers to a direct concern for the pattern in which culture, activities, people and physical objects are distributed in space."

> "*Aspatial* refers to a lack of such concern for spatial pattern ... the characteristics and interrelationships of selected phenomena."

For the purpose of this paper a distinction will also be made between "form" and "process", because the urban structure comprises both formal (static) aspects and procedural (dynamic) aspects. Form and process may then be treated as two complementary versions of "structure".

In addition to viewing urban form from the two major division of "spatial" and "aspatial", it is also useful to examine the trio, "normative, functional and physical" as a qualifying cross-reference classification:

3.1 Normative or Cultural Aspects

These include the rules by which men live and the processes sparking consensus. The cultural component (already dealt with) assumes many tacit understandings, BUT varies widely racially and geographically. Normative aspects include both goal formulation and approved means of goal-seeking.

3.2 Functional Organization Aspects

These deal with the distribution of activities, linkages, production and distribution systems, services and establishments, in the city. Functional organization holds the balance between our norms and values, and physical planning.

3.3 Physical Aspects

These embrace the geophysical base of community life, buildings and people occupying space, in short "permanent or semi-permanent structure that house or channel urban activities/movement".

Some of these terms and definitions can be simplified into a diagram consisting of six cells (Figure 1). A series of vertical and horizontal relationships can then be traced through these cells, according to one's personal philosophy, e.g. spatial-normative or aspatial-physical. The subject of this paper would seem to be "primary concern for values as to spatial arrangement of the city" and it is traced by an arrow flowing from cell 1A to 3B, through cells 1B and 2B. An alternative might be a direct relationship between values (1A and 1B) and the physical environment (3B) (dotted line).

It is now time to feed some of the previous definitions into the second major division of this paper, the philosophical component.

4 SOME CONTRASTING PHILOSOPHIES

The *Pocket Oxford Dictionary* (1960) defines "philosophy" as:

> "The pursuit of wisdom, the knowledge of things and their causes (natural, moral) ... the study of ultimate realities and general principles ... a system of theories on the nature of things ... rules for the conduct of life."

I find words like "things", "ultimate realities and general principles" extremely vague until qualified or related to a particular branch of knowledge. However there is a ray of hope in discussing natural things which occupy space (spatial) and moral principles (aspatial), which might be stretched to include urban form. While their utility is not disputed, space and time do not permit an examination of the nature of cities as described by writers such as Zola (Paris), Dickens (London), O Henry and Damon Runyon (New York), Boccaccio and Moravia (Rome). Instead an arbitrary, personal selection of philosophies relating more directly to urban form will be offered. The order may not necessarily be strictly chronological, but the criteria, spatial-aspatial, form-process and normative, functional and physical will be loosely applied.

	PROCESS	FORM
	ASPATIAL	SPATIAL
NORMATIVE	1A social values, norms, institutional setting, technology	1B spatial distribution of culture patterns and norms: values concerned with the spatial pattern of activities, people.
FUNCTIONAL	2A division/allocation of functions, activity systems, persons & establishments in their functional role	2B spatial distribution of functions, links, activities, spatial pattern of establishments.
PHYSICAL	3A physical objects, geophysical environment, man-made improvements, people as physical bodies, qualities.	3B spatial distribution of physical objects, pattern of land form, buildings, people, roads, physical quality.

FIGURE 1: Conceptual Diagram for Evaluating City Form.
(Source: Foley 1964)

4.1 Ecology

The value system which is the Western inheritance is exploitive, and its utility has continuously declined to the point where it is now an obstruction to survival, success and fulfilment. We need another ethos to replace that of the vandal: this we can find in ecology. We need more and better knowledge of the operation of physical and biological process in order that we may predict and formulate choice (McHarg 1967).

This libation to ecology is in the tradition of the Puritan ethic, and hovers between the aspatial-normative and spatial-physical. It is a fitting introduction to the Scottish biologist-sociologist-planner, Geddes, who was in the mainstream of the philosophical ferment in the last half of the Victorian era. Darwin's *Origin of the Species* had a profound influence on him, especially the ecological aspects of interaction between people and place. Geddes proposed spatial-physical concepts of growth and change, but never himself studied cities in the depth which he advocated, and sketched out a concept of the evolution of cities in close parallel with Mumford. His goal was to make the transition from the Paleotechnic age of slums, wars, poverty and exhaustible resources to the Neotechnic era of co-operation, humanism and true wealth. He saw regional planning as a major process for social transition, but first one had to develop the synoptic view. Exhaustive surveys of the past and present would help to develop future plans (Gertler 1969).

McKaye fits between Geddes and Mumford, and all three shared the ideal of creating a balance between the onslaught of industrialization and the indigenous environment. McKaye leaned on urban concepts peculiar to New England such as structural unity and cosmopolitanism. His thesis was that the breakdown of indigenous, regional culture would in time rob the city of its human environmental resources. To him the indigenous is what stays while the city is a mouth that receives industrial flow and also "a mother of traffic streams". His is a spatial-physical philosophy with functional overtones when he describes water, traffic and culture as "outflow, reflow, inflow and backflow". Being influenced by the transcendentalism of Kant and Emerson as opposed to a mechanistic concept of the universe derived from Newton, MacKaye believed also that man is not a powerless victim of circumstance, but should build on the laws of nature and adapt to his environment.

"Balance, autonomy, symbiosis, directional development, ecological partnership and the hierarchy" are all phrases that belie the deep pessimism of Mumford's philosophy (1961). His is a strong spatial-normative-physical approach coloured by organic terminology.

> "Failing to divide its social chromosomes into new cells, each bearing some portion of the original inheritance, the city continues to grow inorganically, indeed cancerously, by a continuous breaking down of old tissues. The form of the metropolis is formlessness."

According to Mumford then the city should seek salvation in its social

institutions. Like Stein and Perry, he places great weight on the neighbourhood unit (about 5 000 people), and in addition has notions of an optimum size for cities (30 000 to 300 000). Not only are there to be population limits, but residential density should not exceed 100 per acre. His delightful concepts of open space, varying in scale from micro to macro would cater for both introvert and extrovert. Every city should have secluded spots, to which man can make temporary withdrawal for spiritual refreshment. Mumford (1953) agrees with Howard and the Garden City philosophy, with reservations:

> "Because the new town planners were mainly in revolt against congestion and squalor, rather than in love with urban order and co-operation, new towns do not yet adequately reveal what the modern city should be."

"Planning for the phases of life" is a Mumford phrase, and shows that he is one of the few philosophers concerned about the changing needs, mobility and environmental balance of man, on his journey from infancy to senility. Mumford (1949), the eternal humanist, pleads for a community to be a "constantly varying combination of a multitude of associative activities", varying in strength and duration and progressing through the life-cycle from birth to death. Not only is Mumford emphasizing the necessity of choice (for which McHarg was pleading), but he is asking us to remember human behaviour and values in our urban institutions. There are other views.

4.2 The Good City

In discussing some aspatial-normative aspects of urban form, Haworth (1963) states as a wish to:

> "Develop a systematic theory of urban life, connecting it at the one end with the ethical principles that underlie the ideal of a good city, and at the other end with the practical discipline of city planning ... a concrete program for fulfilment of the ideal."

His good city is a complex of institutions offering citizens both community and opportunity, and on the personal level, opportunity and community turn into growth or self-realization, duty or obligation. Personal growth is aided if urban institutions have both moral power and freedom. An institution has moral power if it offers variety of opportunity (richness) ease of participation (openness) and continuity of membership. Freedom is another attribute of institutions, if they are to aid personal growth, but Haworth doubts that flexibility can be much increased in urban areas.

One has the feeling that Haworth's system of analysis could only result if all urban institutions shared common values. The physical plan which Haworth advocates is the neighbourhood unit, integrated socio-economically and qualified by the institutions discussed in the previous paragraph. This is the same neighbourhood concept of Perry and Mumford, which has been challenged in our age of mobility by the proponents of non-territorial networks. However, as a philosopher, Haworth wishes to define the urban form in terms of opportunity and community: a sociologist might define the urban goal in terms of ecology or ethnology: a political scientist in terms of equality and liberty: and an economist in terms of welfare, externalities or utility. In a different way each clarifies urban form, but hopefully all are dedicated to maximizing freedom of choice. As Fiser says (1962):

> "There is no ideal city, no single design which is universally best."

4.3 Technology and Cybernetics

"Technology creates new possibilities for human choice and action, but leaves their disposition uncertain ... thus makes possible a future (city) of open-ended options" (Mesthene 1967).

Society can be thought of in terms of power (muscular or political) and it is precisely this power that makes possible the creation of new urban forms to fit new social processes. In simplistic terms this power derives from adding together three power components basic to man: hand, mind and tools (technology). Even rudimentary technology can multiply the power of a two-man team several hundred times. To organize individuals and their tools together into large societies has been a hallmark of all advanced civilizations. Imagine building the Pyramids of Egypt without the aid of the lever and wheel.

Since the turn of this century, a staggering new rate and scale of technological change has set in, and there has been an upsurge in the application of technology to the solution of socio-economic and political problems. During the Second World War even greater impetus was given to an interdisciplinary philosophy applicable to exceedingly complex systems of technology. Whereas Gibbs and Einstein had changed the course of physics, electronics are changing our society this moment. In 1947 a group of scientists with a common interest in the theory of control and communications launched their "brandnew" Field of Cybernetics, defined by Weiner (1967) as:

> "The science of control and communications in both the animal and the machine."

We are always fighting nature's tendency to degrade the organized and destroy the meaningful, what Gibbs called increasing entropy. Messages, themselves are a form of pattern and organization, and subject to entropy like cities: Michael (1962) indicates the spatial implications of cybernetics:

> "Widely dispersed installations can be co-ordinated and controlled from still another place ... can interact with each other and affect one another's performance as easily, in many cases, as if they were all in the same place."

In dealing with social systems with man as the ultimate self-regulating component, we are up against perennial philosophic problems. Social systems like cities should not only respond to existing environmental challenges, but plan to cope with them in the future. Much social choice depends upon the image of the future deemed desirable by society, and this includes urban form. The ordering of social choice through the wise deployment of technology asks for a high

level of rational behaviour. Yet one of the results of the cybernetic revolution is an increase in value conflict and confusion, as illustrated by the new spirit of militancy, morality and competitive leisure. A pluralistic society must accommodate both group and individual needs, yet achieve political maturity through a humane technology. Massey (1967) warns that:

> "We must never permit a machine to make an important decision affecting human beings, except under the control of human beings."

But even then, relations between the public, technocrats and politicians are indeed critical. Hardin (1969) asks that any new socio-economic systems should have self-correcting mechanisms built into them:

> "In a planned economy, planners who make errors are likely deliberately to interfere with the free flow of information in order to save their skins. Can a planned system (city?) include uncloggable channels of communication?"

Technology has both positive and negative effects at one and the same time, and often has to start by curing the ills of previous progress, e.g. the economic growth "miracles" which have brought air, water and noise pollution. Dechert (1967) suggests that the most critical ethical challenge to this generation will be to determine the social values to be served by cybernetics.

A major question, however, still hinges about mankind's transition from an old to a new system. Important social reform during the past 70 years has been slow, involving great human suffering and waste. In general transitions seem more feasible for small populations than large, but there are fewer small, uncomplicated cities of the Ebenezer Howard type. Gertler (1970) sees this cultural lag, and hints at a sinister environmental lag.

> "The theorist of the post-industrial society, sees a lag in the development of the cultural values, organizational philosophies and ecological strategies necessary to cope with complexity, interdependence and uncertainty."

4.4 Functional Philosophies

After the previous normative\aspatial section on technology, it is reasonable to examine a small sample of functional-spatial concepts, if only to restore balance to this paper. Where better to start than with Lynch and Rodwin (1958) whose city is "adapted space" for the accommodation of human activities and flow systems for goods and people. They devote their main effort to flow systems which they equate with urban form, and this agrees with Figure 1. This work begins with the study of urban form, moves on to the specification of goals and finally draws upon goal-form analysis to indicate the nature of the planner's task. On the one hand, goals of urban form are concerned with man-to-man and man-to-environment, and on the other hand with efficient relationships, i.e. maximizing the return and minimizing the cost in a socio-economic sense. The sequence from goal formulation to form analysis is treated as a continuous dynamic relationship. As an aside, it is interesting to note that Young (1966) defines planning as "the process of defining goals and designing means by which the goals may be achieved".

Webber's philosophy provides a broad framework for describing the city which is explanatory rather than normative. He uses *interaction* as the basic concept and finds two perspectives, where it occurs either in a particular metropolitan community or in widely scattered places all over the globe, "place and non-place" communities respectively. To distinguish them from the urban place, non-place communities are called "urban realms", which will render most megalopoli obsolete (as we know them) and give rise to a new sport among the jet set, which Gross calls: "mobiletics". Webber (1964) says that the city is a dynamic system in action, traced through "linkages" and "dependency ties", and relating individuals, groups and firms. This aspatial view of linkages involves three items:

(a) Spatial patterns of Human Interactions - communications, people and goods.

(b) The Physical Form of a city - space adapted for human activities, the networks of communication and channels of transportation.

(c) The city as a diagram of Activity Locations - spatial distribution of economic, social or other functions.

4.5 Selected Spatial-Physical Approaches

"Today we must regain by conscious effort, the essential *unity of function and form.* It is not a question of inventing the "city beautiful". It is a question of discovering the forms that will most clearly give expression to the functions of our cities." This Blumenfeld quote (1967), appeals for the discovery of unity of function and form and links back to Webber: it agrees with my argument and it is also a fitting link to the last major philosophical category in this paper, the spatial-physical, which might very well deal with the "city beautiful"!! In their tour de force, the Whites (1962) show that philosophies of the American city are divisible into two stages. In the first, romanticism was employed in attacking the city for being over-civilized. In the second stage, the city was accused of being under-civilized by anti- or non-romantics. Where better to start than with Frank Lloyd Wright, who combined both extremes?

Wright (1958) had a philosophy of urban life which preferred to ride the gloomy wave of history. He asserted with Jefferson that the city is a cancer and the home of "mobocarcy" and the "Broadway creed". His task was therefore, "to take away all urban structure and depravity ... and then absorb and regenerate the tissue poisoned by cancerous growth". The Whites (1962) note:

> "Wright rarely spoke with anything like the feeling that Dewey, Park and Jane Addams shared for neighbourly contact ... urban conversation.
>
> Wright seemed to think that modern technology was sweeping away the need for the face-to-face relations that had characterized the

earlier city ... the city would be swept away with it."

However, at some point Wright thought that the city planner should put things together again by employing the double-barrelled strategies of "decenter and re-integrate". The city of the future (Broadacre City) would be "everywhere and nowhere", embrace the country and become the nation.

This decentralized non-city is a romantic dream fleeing from social and economic realities, the concept of a nature-lover to whom urbanity is alien, e.g. "brutal, impersonal Chicago". In Wright's system a city must be achieved in one inspirational, artistic stroke! His Mile-High Illinois Tower is a static, inflexible vertical city, ignoring all those aspatial-normative aspects which give richness to comprehensive planning. In the writings of Gropius (1955) there are elements of organic theory strikingly similar to Wright's, e.g. "Land, nature, man and his art as one great entity". Whereas Wright (1949) might have hailed Gropius as an ally, he attacked him for his concept of teamwork (so vital to comprehensive planning) and belittled his educational experiments, "minor mirror-sects leading into or out of one Bauhaus ... having a cart but no horse". Wright also preferred to ignore another great architect, Le Corbusier; yet the philosophy of a new urban form, "the skyscraper in the park" will forever be associated with these two men.

"Corbusier has two contrasting concepts of the city." (Moholy Nagy 1968)

"(a) Machine-made, standardised, bureacratised, technically perfect.

(b) Natural environment, visual space, sunlight, air, foliage and views."

Corbusier's City for 3 Million of 1992 was the beginning of two decades of intense planning experimentation, continuing with La Ville Radieuse and Le Plan Voisin, and all dedicated to finding "the absolute measure that orders all things". Yet in his Voisin, he tore down much of the historic core of Paris, like a latter-day Baron Haussmann, and packed a rich variety of activities into rectilinear skyscrapers. The slabs and towers rising from Corbusier's Elysian fields, hills and valleys were "vertical villages", self-contained with shops, kindergartens and playgrounds on the roofs. In the new capital of the Punjab, Chandigarh, he adopted a Radburn layout (pedestrian separation) with a series of neighbourhood super-blocks, all in the Cartesian manner. However, a visit to Chandigarh today reveals an Asian population housed in alien Western forms. It is those awkward aspatial-normative factors at work against him! Monster government buildings (senate, supreme court) are totally separated from the city that they are meant to serve.

In 1943 Corbusier and the Ascoral group were already suggesting a planned Megalopolis, a continuous build-up spine extending throughout Europe and possibly into Asia, thus anticipating Ecumenopolis and the philosophy of yet another spatial-physical planner, Doxiades. The initial appeal of his ekistic philosophy is its breadth of scale, ranging from micro to macro. At the one extreme, Doxiadis uses the "human community" as a unit of urban form. It is pedestrian-scale, may not be crossed by motorised traffic, contains daily shopping and primary schools, and has a maximum horizontal dimension of one kilometre. At the other extreme we have Ecumenopolis, a city covering the entire earth in a continuous system of linear expansion with regular nodes.

"Human happiness, unity of purpose, hierarchy of functions, four dimensions and many scales for many masters" comprise the five principles of this science of human settlements. Yet ekistics is essentially an outline of Doxiadis' personal experience, and the generalizations which result from treating a vast range of human and urban phenomena often seem like truisms. Spreiregen (1965) hints that the five elements of the ekistic grid (nature, man, society, shells and networks) are reminiscent of the old Congres International d'Architecture Moderne (CIAM). This suggests that ekistics is more of an art than a science, but let Doxiadis (1968) himself speak:

"No progress is possible unless we are able to make an hypothesis: and progress is easier if experience and intuition help us to select the proper hypothesis or close to it."

What then is the ultimate challenge in developing philosophies of urban form?

4.6 Challenge: A Philosophy of City Change

This paper suggests that urban form is a process state. Some see at least four stages of city building namely survey, analysis, plan and implementation, and these should be part of a cyclic or system concept. As the planning process unfolds in time, urban form may emerge and diversify, changing from the general to the particular, and becoming a task for many (Smithson, 1967):

"The realization of the actual town should be in the hands of the builders of the parts, who, understanding the general intention, must at every stage assess what has gone before, and mutate the whole."

Assuming that the builders of the parts have a common understanding which is an uncommon thing, then the dynamic city, evolving in time, becomes Crane's City of a Thousand Designers. These "builders and designers" are not literal!!

There is a risk that simplistic philosophies and geometrical patterns of urban form will be evolved on the basis of selected facts and a complex web of unstated assumptions. Yet it is exactly the unstated which needs clarification if we are to understand the many theories of serious students of the city. In such studies as Davidoff and Reiner's "Choice Theory", Dyckman's "Decision Theory" or the dynamic simulation model of the Penn-Jersey Transportation Study we have a forecast of the way in which philosophies may be devised to keep pace with the fluid situation of the real world. Fagin (1963) bridges the gap between form and process, the spatial and aspatial:

"The ultimate master plan map as the goal of planning is being re-

placed by a planning process ... the master plan is regarded as an open-ended sequence of plans describing at each successive point in time a desirable equilibrium among ever-changing activities."

This concept involves time as well as change, the normative and the functional.

Commenting on the impermanent aspects of our civilization, Hechscher (1962) suggests that attention should be lavished upon those public works which are most permanent and widely loved. Public sponsorship of works merely serving special interests, e.g. highways for car owners, would have lower priority.

In a related vein, Mumford (1962) has implied that civic design emerges when civilization enjoys some surplus and can aspire to forms which are more than utilitarian. Galbraith's *Affluent Society* (1958) suggests a city more devoted to an economy of men and ideas than material production. The Athenian view of the city as an instrument dedicated to the divine in human nature is very fine, but a great modern city is more complex and utilitarian.

In the planning dialogue between the precise forms of permanence and the aspatial processes of change, I believe that a solution lies in flexibility:

> "Just as our mental processes need fixed points to enable them to classify and value transient information, and thus remain sane and lucid, so too the city needs "fixes", identifying points within a long cycle of change by means of which ... a shorter cycle can be valued and identified."

The Smithsons (1961) labelled the polarities between stability and change: Fix and Transience. In this theory of the City Dynamic (as opposed to his City Cosmetic), Crane (1960) relates the previous extremes to the desired characteristics of the planned city, namely Malleability and Predictability. However, he does not see a situation of extremes, but rather gradations of "hierarchical change in permanence" and change "by osmosis instead of eruption".

It is dangerous for planners to be preoccupied with a philosophy of cities as permanent containers, when their contents are volatile people and ideas. To accommodate change, therefore, a city should be flexible enough to contain the seeds of its own destruction and re-birth. Technology now makes disposable cities possible, and this opens up exciting vistas of accommodating alternative life styles. If the permissive city is capable of any form according to circumstances, we must now determine its "fixes", namely those values and variables of enduring need.

As Dewey (1959) said: "The process of growth, improvement and progress, rather than the static outcome become the significant thing. The end is no longer a terminus".

Now let our planning dialogue continue.

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