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*The Human Experience  
of Space and Place*

*Edited by  
Anne Buttimer and David Seamon*

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## FOREWORD

Librarians will find it difficult to select a suitable place on their shelves for this book. Given their prejudices, they are not likely to recognize the content as geography. They will not easily find an alternative heading either. This is a fate of innovative thinking. This work is a theme with variations. Anne Buttner and her pupils and friends direct their searchlight towards a little-explored realm: ordinary people's experience of the geography which touches the skin in daily doings and dreams. Is this theme important or just another impractical exercise? Let me give an incipient answer.

My generation believed that functional efficiency and large-scale mobility would make people rich, free and happy. We were not entirely wrong. Many good things were created, perhaps even more than we are able to put to any sensible use. But we were too enthusiastic to foresee less useful consequences: ugly, standardized landscapes; dirt in water and air; mass-media and bureaucracy; anonymous neighbors, restless children, abandoned old people. A recent reaction is that small-scale village life looks attractive to some city-dwellers. I grew up at the edge of a small and confined factory village. We gathered at the railway station to catch a glimpse of the larger world when the evening train passed by. Although I place a high price on my childhood memories of this local world with its natural splendor, I would not like to see its poverty and harsh social pecking-order established again.

At first glance this book seems to suggest the older place-bound local community as a viable solution to the social, technological and economic impasse in which the urban-industrial world finds itself. My experience makes me doubt the wisdom of such a solution. To shrink systems, technologies and circulations would probably be a good thing — external circumstances seem to require such changes anyway. That is not to say, however, that all equipment, arrangements and habits of the modern world must be eliminated, and I do not think that Anne Buttner and her group have a vision of that kind in mind. Rather, the implicit suggestion, as I read it, is that certain values almost inevitably fostered in stable, place-bound communities are indispensable ingredients for a decent human existence. There must always be a proper balance between 'place and journey,' 'home and reach.' Since we cannot return to the green valleys we remember, and do not really wish to do so, let us instead re-create the lost values by giving them visibility and inspiring people to cultivate them, each for his or her position, in the world as it

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now is. Once we become aware of the ailment, we may find opportunities to heal.

Torsten Hågerstrand

## ACKNOWLEDGEMENTS

The people and institutions having a role in this book are many. First, the editors would like to thank the following publishers and individuals for permission to quote or reprint: Sage Publishers (Chapter 1); Westview Press (Chapter 2); George E. Deering, MD (Chapter 3); Dick Peet and Phil O'Keefe, editors of *Antipode* (Chapter 4); Croom Helm Publishers (Chapter 7); and Hans Aldskogius and Uppsala University, Sweden (Chapter 8). We also thank Hans Aldskogius for permission to use several photographs in Chapter 8.

Two university institutions have had a major role in the production of this book: first, and most obviously, Clark University, which offered the supportive intellectual milieu for the work described here; second, Lund University, Sweden, where time was provided to organize this collection amidst the business of other projects.

The editors particularly wish to thank Torsten Hågerstrand, for suggesting that this volume be assembled and providing encouragement for its completion; Christina Nordin, for criticism of various sections; and Susanne Krüger for her patience and excellent typing.

Anne Buttner  
David Seamon

Delphin  
Lund, Sweden



## INTRODUCTION

Anne Buttner

The initiative to assemble the following essays in one volume came from Professor Torsten Hägerstrand at the University of Lund in the fall of 1977. Ideas and questions which I had shared there during 1976 had aroused curiosity and concern. Issues such as environmental perception, values, subjectivity, language, stress – could these be regarded as legitimate objects for geographic study? Even if one could appreciate the humanistic or even logical grounds for such interests, how could one operationalize research on them? Often I referred to work being done by colleagues and students at Clark University and elsewhere in North America, and indeed since then there has been more exchange of ideas between Swedish and American scholars. Those who had worked directly with me did not, I felt, constitute an identifiable group: each individual had pursued his or her own line of work in conjunction with many others. In fact, we had encouraged one another to pursue topics which seemed important in their own right and none would claim the role of pioneer or spokesman for new kinds of disciplinary orthodoxy. But that is what is attractive, Professor Hägerstrand insisted: fresh beginnings and provocative theses are far more inspiring than finished products. It is in this spirit that we have responded. We present here a selection of 'excursions' – benchmarks on intellectual journeys begun at the Graduate School of Geography at Clark University and now traversing fresh territory – rather than *faits accomplis* within a unified field of expertise.

The diversity of style and orientation contained in the essays defies rigorous classification. The credit or blame for this rests largely on my shoulders and I in turn credit the milieu at Clark during those years 1970-7. I had always endeavored to make teaching an invitation to fresh discovery rather than indoctrination; I used to feel nervous and sad when students regurgitated ideas or demanded to be told what was expected of them. To work with graduate students at Clark has been for me a turbulent yet exciting journey toward discovering and reaffirming what the Socratic vocation demands in contemporary academic settings. It is with gratitude and pleasure that I join with these former students of mine in sharing some of the fruits of our time together.

Over a year of correspondence and discussion has still not yielded

consensus on what an appropriate title for this collection should be. One common denominator was a shared *human experience of space and place*; the Graduate School of Geography at Clark University during those years 1970-7 was the context within which each of us drew inspiration and direction for the intellectual journeys which converged there for a while. In retrospect, given our dispositions, we could scarcely have found a more suitable context for such an endeavor. Under the Directorship of Saul B. Cohen, pluralism of thought and diversity of style could flourish. We were especially fortunate, I feel, because none of these dissertations were involved in funded Research Grants: we felt trusted to follow our own insights and to measure up to the responsibility entailed. Each person or group may describe Clark in a special way, but for me it was a setting conducive toward liberation from the tyrannies of former certainties, encouragement to reach beyond cherished taken-for-granted preconceptions and testing ground for the sincerity of one's commitment. Such learning experiences demand a high price, emotionally and spiritually, and in the rush and intensity, at times one scarcely appreciates what is happening. Only in retrospect can one begin to differentiate the wheat from the chaff.

A virtual whirlwind of associations emerge as I try to recapture the atmosphere which prevailed during those years. It was a bleak rainy afternoon in September 1970 when I arrived in Worcester, tearfully nostalgic for Glasgow and laden with data on my social space project: ill prepared for a new adventure. Graham Rowles had preceded me by one week. He too had boxes of data on a multivariate analysis of school-leavers and their perceptions of university choice, and his enthusiasm about new opportunities was radiant. David Seamon was a first-year graduate student that fall, and Bobby Wilson had already completed one year of course work.

Everything about the scene spoke of a fresh beginning: the Fiftieth Anniversary Jubilee coincided with a move to new quarters in the Academic Center. It was a lesson in proxemics to observe the social structure of the department articulate itself in the allocations of space. Environmental perception and behavior seemed to be the 'pearl of great price' at that time: bright and eager graduate students from geography and psychology pitched in to lend strength and resources to the movement. Jim Blaut and David Stea had already generated much enthusiasm over their place perception project; Ken Craik and Bob Beck were Visiting Professors in psychology for the academic year 1970-1. A faculty seminar on environmental perception and behavior included personalities as diverse as Saul Cohen, Bob Kates, Jim Blaut, David Stea,

Jeremy Anderson from geography, as well as Seymour Wapner, Bernie Kaplan, and Ken Craik from psychology.

I found myself swept up into a breathless round of discussions on those very themes which emerged in my social space project in Glasgow. Officially I was a 'post-doctoral fellow' that year, free to pursue the analysis of data and complete the report on my project. *De facto*, there was scarcely a moment free for anything except interaction with students and colleagues who seemed so eager to share ideas and questions about perception. The most absorbing of all was an attempt by a small group of us — Gerry Karaska, David Stea, Graham Rowles and I — to formulate a Research Grant Proposal which would enable us to implement a comparative study of social space in Worcester and Glasgow. In the course of many months of work we learned some unforgettable lessons about costs and benefits in translating thought into the language of research proposals. From the same experience, too, we learned much about the values of face-to-face deliberations over divergent views when the atmosphere permits frankness and mutual respect. Our proposal was not funded, but for all four of us, that group context provided supportive challenge to fresh perspectives on knowledge and life.

Other waves of intellectual interest overlapped with ours. The history of geographic thought and my interests in French *géographie humaine* provided links with the work of Martyn Bowden and Bill Koelsch, and Henry Aay helped me for two years on a course in the History and Philosophy of Geography. A major program for the training of teachers in geography, sponsored by the US Office of Education and directed by Duane Knos and Dick Ford, drew participants with a keen interest in testing some of our 'perception' models with grade- and high-school students. Bob Kates and Dick Howard shared their enthusiasm over *Aquarius*, a computer-based simulation of problem-solving on environmental management, and Roger Kasperson's interest in urban politics linked closely with ours.

It was not all analysis paralysis, though. Ben Wisner's vision of a journal for critical thought — an *Antipode* — was already touching many ears. This was to become, after Ben's departure for Africa, an organ for the articulation of many other views, particularly Marxist and anarchist ones. In fact, by 1972, as anti-war rhetoric waned, and the various early shoots of perception and cognition became harvested into discrete projects and dissertations, much energy became channeled toward matters of social involvement. Here a lively debate developed between 'our' existentialist vantage point and that of the revolutionary theorists, among whom David Harvey was the leading voice. On any debate be-



tween intellectual socialists and intellectual existentialists, the latter, it seemed, were inevitably the losers. My defense was usually based on logical as well as experiential evidence, but on socialism I lacked any lived experience. I think it may have been precisely this challenge which provoked me to study and live in Sweden later on. As key links between these two stances, Myrna Breitbart and Mick Godkin were especially welcome in 1972 and 1973: for both Dick Peet and for me these two persons played an enormously important role. This was my time for speculating about values for the Commission on College Geography, and in retrospect I realize that without the encouragement and constructive criticism afforded by every one of my colleagues, I doubt if I should ever have ventured into this area 'where angels fear to tread.' In the final drafts, the careful critique afforded by Martyn Bowden, Dan Amaral, Gary Overvold and Denis Wood was a lesson in scholarly cooperation and mutual support.<sup>1</sup>

By 1974, Graham's research on the elderly had begun, and Bobby Wilson had completed his dissertation on the experience of Black migrant families to New York.<sup>2</sup> It seemed that our 'urban social' phase was winding down. David Seamon had become more involved in phenomenology and had experimented with empirical observations with groups of students.<sup>3</sup> Myrna Breitbart was already involved in field work on anarchist communes in Spain, and Mick Godkin was spending a good deal of time studying alcoholics under the supervision of a psychiatrist.<sup>4</sup> In the fall of 1974, Courtice Rose arrived from Canada. Already attuned to most of the literature in urban and social geography, Curt was eager to explore the philosophical foundations of a 'new paradigm' for geography. In his capacity to read and articulate difficult nuances of analytical philosophy, Curt taught a lesson to all of us and forced us to be more rigorous in our use of language and terminology.<sup>5</sup> Paul Kariya joined us in 1975 with an interest in native Americans and welfare policy, and one year later Ruth Fincher, whose interests were more explicitly urban. We were indeed a motley gathering: our interests, personalities, intellectual styles, and attitudes toward social relevance were indeed varied. As I left for Sweden for the first semester of 1976 I could not have dreamed how much they were to offer help and guidance to one another.

The following essays offer a sample of the orientations which were pursued during that period 1970-7. Despite their diversity, there are some common themes discernible. There is the dialectic of security and adventure as typified in the relationship between 'home' and 'reach,' 'place,' and 'journey.' There is also the dialectic of 'manager' versus

'client,' 'movement' versus 'structure.' Throughout, also, we all groped toward a language which might permit a more sensitive relationship between 'insider' and 'outsider,' between 'supply efficiency' and 'demand appropriateness' in the organization of public services. In each of the dissertations from which these essays are drawn, either fully or in part, there is a concerted attempt to probe the experiential grounding of concepts like place, community, encounter, at-homeness, movement, and commitment.

There are limitations, of course, in the printed word of short essays: they cannot communicate much of the important learning which occurs in the course of doctoral studies. There are hazards also when one assumes the 'Cinderella' cause of human personhood and authenticity in a world where securing bread and butter often demands obliviousness to such matters. Once having switched on to an existentialist perspective, it is difficult to avoid polarizing contrasts between 'insider' and 'outsider:' this generates language and symbolism which has an anti-scientific, anti-managerial tone. Quite unwittingly, too, the humanistic intent can become vulnerable to charges of jargonizing and manipulative tokenism.

How was one to anticipate such a turn of events? In 1970 my own lenses were molded by years of philosophical immersion in existentialist and phenomenological thought and bolstered by two years of concern about planning policy and standards for housing and health in the UK. I felt a strong sense of urgency about yielding an articulate description of human experience, and the whole atmosphere at Clark at that time seemed supportive. Eight years later I wonder about the mixed blessing of 'success' in convincing so many students to pursue that course without also leading them in the direction of critical evaluation. To be a teacher is an awesome responsibility: inevitably, one's students are subjected to influences which may be intellectually exciting and inspiring but not necessarily those which will guarantee status or career advancement.

It was with a somewhat apologetic tone that I shared these worries with this group a few months ago and their response was unanimously reassuring: they too have come to recognize the connections between language, knowledge, and power within academic circles and the enduring challenge of 'vocational' versus 'system-defined' agenda for the professional geographer. To each the challenge reveals itself in different forms, for each the responsibility to face it as his or her situation allows. For all of us this volume will be a souvenir to keep the vision alive.



## Notes

1. Anne Buttimer, *Values in Geography*, Commission on College Geography Resource Paper No. 24 (Association of American Geographers, Washington, DC, 1974).
2. Graham D. Rowles, 'Exploring the Geographical Experience of Older People' (PhD dissertation, Clark University, Worcester, Mass., 1976). Published as *Prisoners of Space? Exploring the Geographical Experience of Elderly People* (Westview Press, Boulder, Colorado, 1978); Bobby Wilson, 'The Influence of Church Participation on the Behavior in Space of Black Migrants within Bedford-Stuyvesant: A Social Space Analysis' (PhD dissertation, Clark University, Worcester, Mass., 1974).
3. David Seamon, 'Movement, Rest and Encounter: A Phenomenology of Everyday Environmental Experience' (PhD dissertation, Clark University, Worcester, Mass., 1977). Published as *A Geography of the Lifeworld* (Croom Helm, London; St Martin's Press, New York, 1979).
4. Myrna Margulies Breitbart, 'The Theory and Practice of Anarchist Decentralism in Spain, 1936-1939: The Integration of Community and Environment' (PhD dissertation, Clark University, Worcester, Mass., 1978); Michael A. Godkin, 'Space, Time, and Place in the Experience of Stress' (PhD dissertation, Clark University, Worcester, Mass., 1977).
5. Courtice G. Rose, 'The Concept of Reach and its Relevance to Social Geography' (PhD dissertation, Clark University, Worcester, Mass., 1977).

## Part One

### IDENTITY, PLACE, AND COMMUNITY

## 1

SOCIAL SPACE AND THE PLANNING OF  
RESIDENTIAL AREAS\*

Anne Buttimer

Cities are an immense laboratory of trial and error, failure and success, in city building and city design. This is the laboratory in which city planning should have been learning and forming and testing its theories. Instead the practitioners and teachers of this discipline . . . have ignored the study of success and failure in real life, have been incurious about the reasons for unexpected success, and are guided instead by principles derived from the behavior and appearance of towns, suburbs, tuberculosis sanatoria, fairs, and imaginary dream cities — from anything but cities themselves — Jane Jacobs (1961: 6).

The livability of residential environments has become one of the most urgent challenges facing our industrial cities. Despite the volume of scientific research, experimentation, and evaluation, our understanding of the problem remains embarrassingly incomplete. Its very complexity baffles the investigator. One merely carves out slices of the problem and investigates them according to the concepts and procedures of specific disciplines.

Traditionally, residential areas have been studied within the framework of urban land-use structure (Alonso, 1964; Muth, 1969). Norms and guidelines have been developed for the 'rational' allocation of space and service functions throughout such areas (Harvey, 1970). Of late, serious efforts have been made to explore the problem from the viewpoint of the resident. Studies have attempted to explore the dynamics of spatial behavior in microenvironmental settings (Proshansky *et al.*, 1970), and several design implications have emerged from such behavioral research (Sommer, 1969; Alpaugh, 1970).

These studies also yield potential implications for planning of residential environments, but they are not yet readily translatable at that scale. Little substantial evidence is available regarding criteria on which the appropriateness of residential area design for different kinds of residents could be defined. Some studies suggest that there are

\*This essay originally appeared in *Environment and Behavior*, 4 (1972), 279-318. The editors wish to thank Sage Publication for permission to reprint it here.

important relationships between physical design and social behavior (Young and Willmott, 1957; Rainwater, 1966; Schorr, 1963; Yancey, 1971); others hold that little or no relationship is found between architectural design and social life (Gutman, 1966; Wilner *et al.*, 1962; Gans, 1961). Confusion abounds partly because there is still no comprehensive framework within which research on different facets of the question can be coordinated and comparative studies implemented. This multidisciplinary research effort cannot as yet claim any unifying conceptual structure, nor has it a common language for interdisciplinary effort.

Meanwhile, the planner, charged with the responsibility for designing residential environments, combs through this literature for insight into practical issues, often only to abandon it, finding common sense, traditional 'standards,' or political pressure better guides for action than 'scientific' research (Reade, 1969). Besides, the Ivory Tower ethos that has traditionally separated the planner from the academic world still constitutes a serious barrier to fruitful communication (Gans, 1968; Blair, 1969; Buttimer, 1971). Yet even when a *rapprochement* occurs, as has indeed happened on occasion in the context of residential area planning, both social scientists and planners find themselves constrained by a predominantly Cartesian view of knowledge and by the peculiarly managerial perspective on urban life which this view has fostered. Both tend to think of systems, of states of being, whether on the demand side (behavior patterns, interaction networks) or on the supply side (service networks, building design).

Livability, if this be our aim, cannot be defined adequately in terms of systems or states of *being*. For life in residential areas involves a dialogue of behavior and setting, of demand and supply; it is thus essentially a condition of *becoming*. Such a condition is seen to arise when resident communities engage in creative dialogue with their environments, molding, re-creating and eventually appropriating them as home. In this existential view, the planner can no longer be considered solely as the manipulator of supply; neither can the academician be seen merely as the investigator of resident aspiration and satisfaction. Least of all can the citizen be considered a passive pawn of external social or technological processes. This view demands that all engage themselves responsibly in the planning process itself.

For such a joint involvement in the *becoming* of residential areas, a radical new education is needed for both planner and social scientist. Each has to develop a more comprehensive understanding of urban life and the dynamics of urban systems. We need frameworks for investiga-

tion and reflection which do not segment and ossify parts of the city, as Cartesian practices have done. And we need an empathetic understanding of urban life as existential reality, as lived experience. An existential view of livability challenges the traditional rift between theoretical and applied disciplinary orientations. It calls for a unified, interdisciplinary approach to the study of environmental experience. Its essential focus on the meanings of phenomena in lived experience radically questions the assumptions and premises on which 'objective' scientific analysis is traditionally based, and openly invites subjective involvement in the reality to be investigated.

This paper addresses itself to that manifold challenge. First, it attempts to define and clarify the notion of social space as a framework for a comprehensive understanding of environmental experience. Second, it applies this idea to residential area-planning as illustrated by a preliminary investigation within selected housing estates in Glasgow, Scotland. The essay is intended to be provocative and suggestive; it does not offer rigidly tested hypotheses or guidelines for general application. Its aim is to raise rather than to resolve issues, to elicit curiosity rather than to provide conclusive answers.

### Toward a Definition of Social Space

The concept of social space, as defined by Chombart de Lauwe (1956, 1952; Buttimer, 1969), offers a useful initial guide for an investigation of lived experience. As explained in his original Paris study, social space (*l'espace social*) is a framework within which subjective evaluations and motivations can be related to overtly expressed behavior and the external characteristics of the environment. Recent developments in sociology, social psychology, and other disciplines have greatly facilitated the analysis of specific dimensions of social space as defined in these terms.

In Anglo-American writings, however, semantic confusion surrounds the notion of social space. Sorokin (1928: 6) used the term to identify a person's 'relations to other men or other social phenomena chosen as "points of reference."' Social space was defined as a system of coordinates whose horizontal axis referred to group participations and whose vertical axis referred to statuses and roles within these groups. Such a 'system of social coordinates' could, in Sorokin's view, enable us to define the social position of any man. This purely sociological definition of social space differed from the psychologically oriented definitions of



the term employed by other scholars, who stressed the subjective dimensions of reference systems (Park, 1924; Bogardus, 1925).

More recent definitions of the term favor the psychological orientation. One recent statement (Theodorson and Theodorson, 1969: 394), for example, holds that 'social space is determined by the individual's perception of his social world, and not by the objective description of his social relationship by any observer.' This definition implies a close connection with reference group theory, a body of literature that provides useful insights into the nature of environmental behavior (Shibutani, 1955; Hyman and Singer, 1968). These interpretations reiterate the original Durkheimian sense of the term, which defines a person's position in 'sociological space,' and specifies nothing about his situation in physical space. This was the critical link provided in the work of Sorre (1957) and further elaborated by Chombart de Lauwe (1952; 1965) in his study of Paris.

Chombart de Lauwe (1952: 190-1) identified two distinct components of social space: (1) an objective component, 'the spatial framework within which groups live; groups whose social structure and organization have been conditioned by ecological and cultural factors,' and (2) a subjective component, 'space as perceived by members of particular groups.' Recent research by Anglo-American scholars has advanced our understanding of these two components, but little attempt has been made to integrate them into any comprehensive explanatory model.

Social area analysis provides one obvious approach to a definition of objective social space. Social spaces originally denoted groupings of census tracts which displayed a degree of homogeneity in terms of given sociodemographic characteristics (Shevky and Williams, 1949; Shevky and Bell, 1955). This interpretation was later adopted by geographers for factorial ecology studies (Berry and Horton, 1970; Brown and Moore, 1971). Whether or not the 'spaces' derived from a factor analysis of census variables were considered to be 'areas' by the resident population was not considered. Pioneers of social area analysis studied the isomorphism of social participation patterns and social spaces and matched activity patterns with the spatial morphology of social characteristics (Bell, 1959; Greer, 1956), but they made little attempt to examine the isomorphism of place identification with so-called 'social spaces' (see Greer, 1969: 99-104). The analysis of social activity patterns offers more dynamic variation on this theme. Action spaces, activity spaces, behavior fields, and other concepts related to spatial movements have been examined as indices of social space (Chapin and Hightower, 1966; Cox and Golledge, 1969; Adams, 1969; Brown and Moore, 1971).

In these studies, the nature and dynamics of people's movements in space are taken as critical clues to their relationships with their environments.

Complementary perspectives on spatial experience are afforded by the literature on territoriality (Altman, 1970; Lorenz, 1966; Ardrey, 1966; Suttles, 1968), personal space (Sommer, 1969), and proxemic behavior (Hall, 1966). Processes whereby individuals and groups lay claim to space and organize and defend it in culturally prescribed ways have recently become a major focus of interest in studies of environmental behavior. Whereas research on social areas and activity spaces generally relates to 'objective social space,' the territoriality literature adds insights of 'subjective social space' (Boal, 1969; Metton, 1969). The subjective component of social space has been explored primarily in social psychology, anthropology, and ethology, within the framework of such concepts as life space (Lewin, 1951), ethnic domain (Barth, 1956), cognitive maps, (Downs, 1971; Blaut and Stea, 1971), and urban images (Lynch, 1960; Strauss, 1961). These studies, though diverse in their approach, share a common focus on perceptual and cognitive evaluations as determinants of spatial meaning (Stea and Downs, 1970; Cox and Zannaras, 1970). Such research seldom attempts, however, to link cognitive structurings of space with the actual ecological characteristics of the environment. Exceptions include Lee's (1968) empirical study of 'socio-spatial schemata,' Michelson's (1966) analysis of life-styles and value orientations, and Fried and Gleicher's (1961) work on 'satisfaction' among relocated families in Boston. Each of these studies attempts to link value orientations, mental schemata, or traditions to externally manifest behavior in particular environments.

Can any common threads of meaning be derived from these diverse bodies of literature? Is there any comprehensive framework within which they can be integrated? Are the conceptual and methodological approaches so distinct that research coordination is impossible? The literature reviewed appears to offer insight into at least five distinct levels of analysis:

- (1) a social-psychological level investigating a person's position within society — that is, 'sociological space';
- (2) a behavioral level investigating activity and circulation patterns — that is, 'interaction space';
- (3) a symbolic level investigating images, cognitions, and mental maps;
- (4) an affective level investigating patterns of identification with territory;



- (5) a purely morphological level, in which population characteristics are factor-analyzed to yield homogeneous 'social areas.'

To appreciate fully the patterns yielded by any one level of analysis, they must be related to the other levels. But before any comprehensive framework can be formulated, it is important to identify some of the missing links in the chain of research endeavor.

#### *Incorporating a Sociological Dimension*

An examination of the literature on spatial behavior suggests that one critical missing link is the sociological dimension. Most of the explanatory models rest heavily on generalizations about relationships of organisms to their environments; for example, perceptual/cognitive processes (image formation, distance and space perception); dynamic-movement processes (activity spaces); instinctual/cognitive processes (territorial defense, proxemic behavior); affective processes (identification with place); and various combinations of these. The sociological dimension in these processes is rarely given explicit attention. Similarly, life-style, social stratification, status, and role are rarely treated explicitly in studies of environment behavior (see, however, Gerson, 1972).

If environmental behavior is taken as the external (spatial) expression of social reference systems (sociological spaces), it becomes possible to integrate findings from the various levels of analysis. While genetic endowment, personality attributes, territorial instincts, and so on must be recognized in any study of environmental relationships, such personal characteristics are usually influenced by the individual's life-style, group participations, and other activities involving interaction with others. The reference groups from which an individual derives his values and behavioral norms dictate certain aspirations and attitudes toward his milieu (Flachsbart, 1969; Rothblatt, 1961).

Investigation of the spatial expression of such reference systems requires an examination of spatial activity patterns generated by social interaction. A person's accessibility to social contacts, whether voluntary (friends, relatives, recreational centers) or involuntary (shops, schools, clinics), constitutes a set of congruence indices between his socially determined aspirations and his manifest behavior. The nature of a person's social relationships predisposes him to attach different significance to the routes taken, to the nodes at which interaction occurs, and to the places associated with particular events and circumstances. Discrepancies between an individual's socially dictated aspirations and

his actual achievements may lead to anomalies in his spatial behavior, explicable in terms of social reference systems rather than of personality attributes, or characteristics of the environmental setting (Runciman, 1966). For each social group, a network of preferred places, interaction spaces, safe and dangerous locales, and frequented and avoided paths could be mapped. Individuals and groups feel their way through a city in activity space orbits with the nature and extent of circulation patterns generating and influencing images and establishing affective relationships with particular places, routes, and nodes.

Such sociospatial reference systems can be viewed as filters through which the physical environment is known, evaluated, and used. Geodesic space is expanded and contracted by the ties of kinship, language, and special interests. Shops, schools, and churches stand out as focuses in the mental maps of their clientele. Distances shrink or expand according to the frequency of use and the importance of destinations. 'Behavior settings' (Barker, 1968) and 'situated activity systems' (Goffman, 1961: 8) are defined in terms of the life-styles of their users. In sum, places and spaces (areas, nodes, pathways, edges) assume spatial dimensions that reflect the social significance they have for those who use them (Strauss, 1961; Lynch, 1960).

#### *Empirical Illustration: Critique of Residential Area-Planning*

The notion of social space, formulated in this way, provides a useful framework for exploring a variety of urban problems. A preliminary investigation of residents' evaluations of different housing estates in Glasgow offered an opportunity to test the idea and to develop a widely applicable methodology. The detailed research design will not be described here. Only those aspects of the study that bear primarily on operationalizing the social space concept will be discussed.

The primary aim of the study was to assess the conventional standards used in residential area design by examining residents' attitudes and evaluations of the design and service provision in selected housing estates. Planning standards recommended for residential areas concern such criteria as optimal density, accessibility to various services, design norms for house size and layout, and safety. Such standards are generally based on tradition or estimates of average demand rather than any exploration of the subjective social spaces of residents. Even when standards are comprehensive, residents of well planned estates are by no means always satisfied (Jacobs, 1961; Hole, 1959; Fried and Gleicher, 1961). This raises the question of whether the 'objective' standards approach to residential area-planning in fact stems from

warrantable assumptions about social behavior.

The central question in the Glasgow study was the degree of correspondence between residents' aspirations and values (subjective social space) and standards for the design of the physical environment (objective social space). It was felt that the appropriateness of particular area designs could best be gauged by ascertaining the extent to which residents achieved the socially determined aspirations implicit in different types of spatial experience. Seen in this light, the relocation process involved more than a change of physical environments and losses and gains of services; it potentially ruptured bonds to place and to social networks. The adequacy of new environments might thus be evaluated in terms of residents' abilities to recreate satisfactory social space patterns in their new environments.

Out of 18 districts originally chosen on the basis of (a) presence or absence of planning standards, (b) location *vis-à-vis* city center, and (c)

Figure 1.1: Location of Study Areas



socioeconomic level as defined by ratable property values, four districts were eventually selected for the pilot study. All were in the lowest socioeconomic category; two were located near the city center, two on the periphery. One district from each location type evidenced the presence of planning standards; the other lacked them. The labels 'planned' and 'less-planned' identify these districts (see Figure 1.1).

Two distinct analytical perspectives were assumed in the study. One focused on the appropriateness of environments for people by eliciting direct assessments of actual site characteristics; the other focused on the nature of people's demands for residential environments, by exploring certain dimensions of behavior and aspirations.

The appropriateness of environmental supply was analyzed with regard to three major questions:

- (1) Were residents in planned districts in general more satisfied<sup>1</sup> than residents of less-planned districts?
- (2) How did the evaluations of external observers compare and contrast with residents' evaluations of the same characteristics?
- (3) Could residents' satisfaction with their environment be inferred from the evaluations of the external observers?

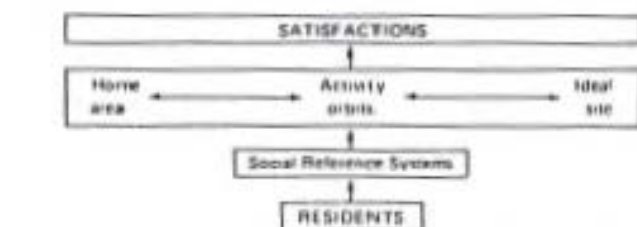
The environmental assessments of residents and external observers revealed interesting points of divergence and convergence. The presence of standards did not guarantee universal satisfaction. Contrasting evaluations were largely a function of the lenses through which objects were perceived. For the external observer, notwithstanding his efforts to achieve objectivity through the standardized scales and disciplinary research models, also evaluates the environment subjectively through the variegated prism of his experience, just as the resident does. The reference systems that influence the external observer's evaluations offer a valuable avenue for further research (see Craik, 1970).

The second approach, labelled 'demand anticipation,' explored residents' evaluations of site character in terms of their underlying socio-spatial reference systems. We found that the inhabitants used, interpreted, and evaluated their residential environments through the filter of their socio-spatial reference systems, operationally defined in this study in terms of three components; (1) territoriality, (2) activity orbits, and (3) expectations about site character (Figure 1.2). Overall satisfaction with the physical characteristics of the area and with life in the area are the cumulative result of congruence in three components of spatial experience — namely, ability to identify with a home ground,



accessibility to aspired social and service destinations, and a perception of the architectural environment corresponding to an image of an ideal environment.

Figure 1.2: An Operational Schema for the Analysis of Demand



Although these three types of spatial experience can be treated separately for purposes of analysis, they cannot be considered separate entities in terms of lived experience. An image of an ideal environment theoretically subsumes aspirations about territoriality, accessibility to desired destinations, and ideal site character. Activity orbits (the spatial expression of social reference systems) contribute to and mold this image. Individuals establish affective relationships with particular urban places, routes, and nodes through the spatial activity patterns generated by interaction with their social reference systems. Their expectations about residential area character are also influenced by the norms and values transmitted within this reference system.

These relationships are illustrated for two hypothetical polar types of resident: the 'localite' and the 'urbanite' (Figure 1.3). Two distinct types of activity space were measured: (1) participation spaces defined by reference groups, shown here for relatives, friends, and occupational and special interest groups; and (2) circulation or interaction orbits, defined in terms of macro-service spaces represented by trips to schools, shops, post offices, and doctors; and micro-service spaces, which include trips to bus stops, public telephones, nursery schools, play area, pubs, youth clubs, community centers, libraries, parks, and gardens. Participation spaces are clues to a person's sociological space, while his circulation orbits are clues to his behavior field.

Three distinct layers of socially significant spaces can be defined for each individual: social participation, macro-service, and micro-service. The degree of overlap among these layers reflects the internal homogeneity or restrictiveness of an individual's social space. In spatial terms,

Figure 1.3: Idealized Sketches of Socio-spatial Reference Systems

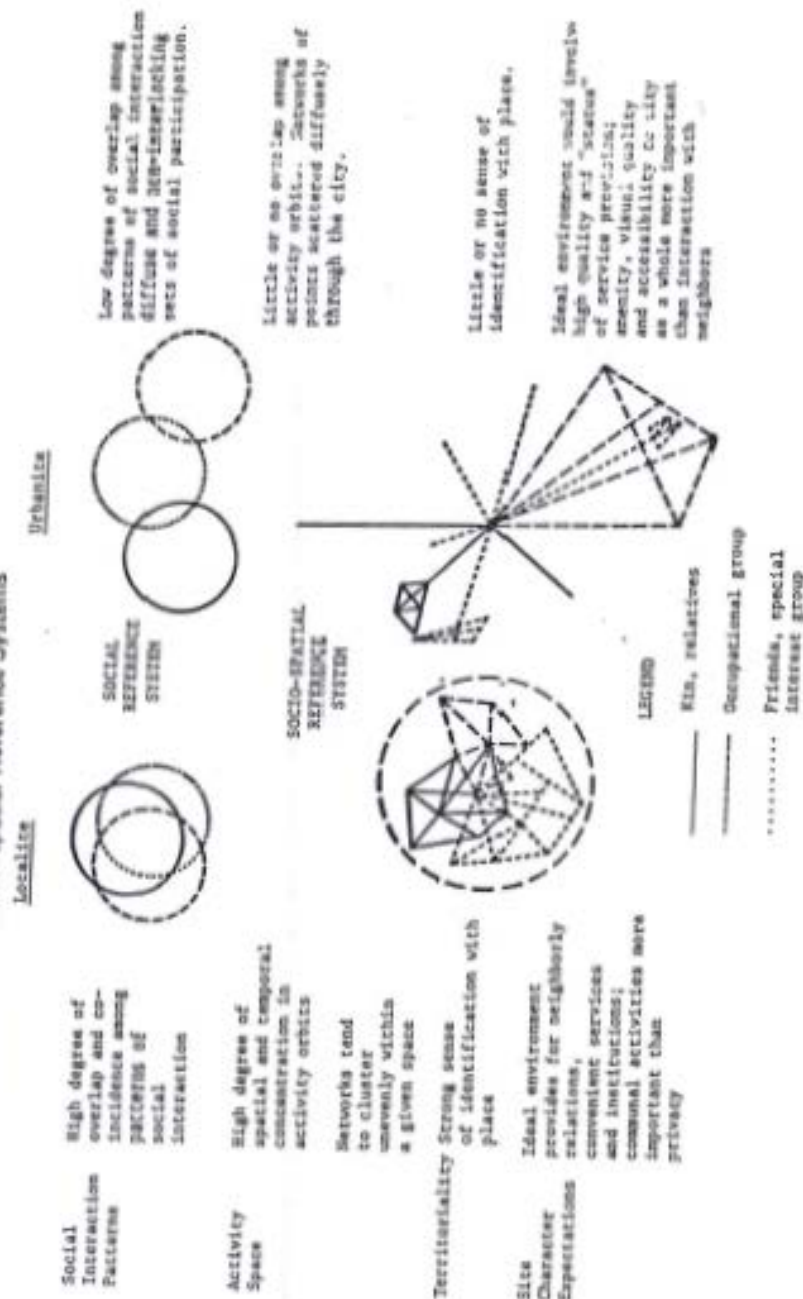
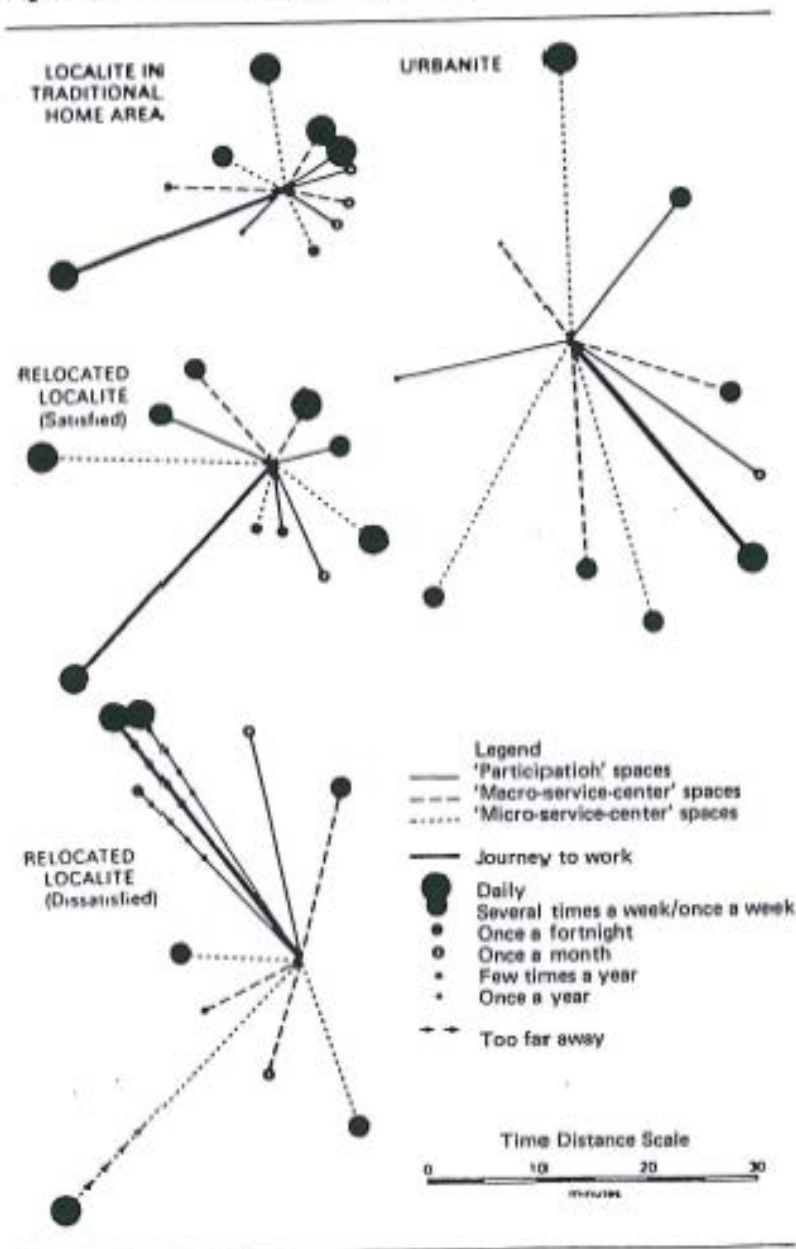


Figure 1.4: Idealized Activity Space Profiles



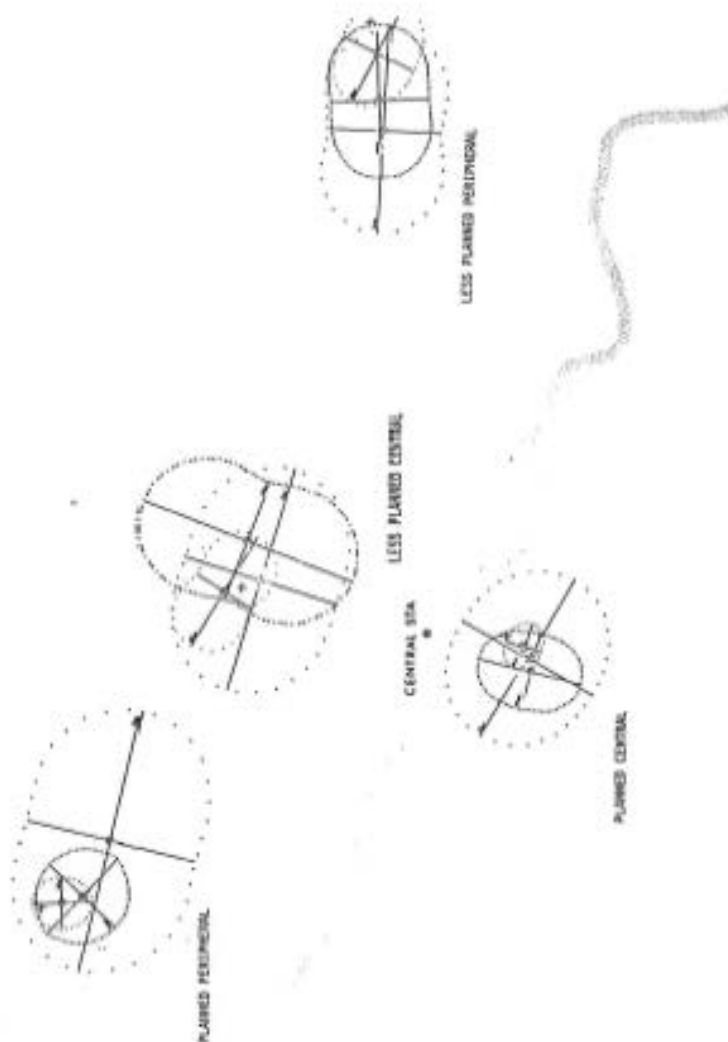
analysis of spatial and temporal concentration in movement patterns was expected to yield a horizontal zonation of socially significant spaces: (1) a local zone defined in terms of trips to shops, schools, play areas, and of casual but frequent interaction with neighbors; (2) an intermediate zone defined in terms of regular trips to occasional shops, church, doctor's office and of visits to friends, relatives, and special interest group meetings; and (3) a more diffuse zone defined in terms of interaction with close friends and relatives of primary importance even when their residential location makes visiting difficult. The ideal situation in terms of planning would be one in which the first of these zones would correspond with facilities within a five-minute orbit from home, the second would correspond to facilities located within a ten-minute orbit and the spatially more discontinuous outer zone would accommodate longer movements through space in search of a higher intensity of social meaning.

Spatial and structural overlap among these three kinds of spaces was expected to be greatest among 'localites' and least among 'urbanites' (Figure 1.4). Hence, territorial identification would be greater among the former than among the latter. It was also expected that high levels of spatial and temporal concentration in activity spaces would be associated with a propensity to value the social characteristics and micro-service features of the local environment, while diffuse patterns of activity would involve greater concern for neighborhood visual quality and 'status' and for accessibility to the city as a whole, but would place little emphasis on local neighborhood interaction. An analysis of images and associated behavior patterns could yield a typology of expectations both for local design (site) and for accessibility (situation), ranging from the polar positions of localite to urbanite (Webber, 1964). Such a typology might not parallel socioeconomic status or social class (Gerson, 1972), but there is some evidence that local network interaction contributes more to overall satisfaction with area among working-class families than among others (Yancey, 1971).

The general hypothesis outlined in Figure 1.4 suggests a restricted, roughly circular profile for the typical localite, with most daily and weekly destinations except the journey to work concentrated in the five- and ten-minute zones. The urbanite's profile, by contrast, is highly diffuse, involving little interaction with the zone closest to home. A relocated localite might be reasonably satisfied if his new activity space profile remained somewhat restricted, with frequently visited destinations still no more than ten to fifteen minutes from home. But, if the profile is greatly altered, diffuse in space and directionally biased, he will be dissatisfied.



Figure 1.5: Standard Deviation Ellipses Describing Activity Space Profiles within the Four Estates



A centographic technique known as the Standard Deviation Ellipse (Caprio, 1969; Hyland, 1970) made it possible to describe several dimensions of the aggregate activity space orbits of each resident group.<sup>2</sup> Ellipses (Figure 1.5) provide a graphic description of

- (1) the overall volume of interaction as defined by the area of each ellipse;
- (2) the degree of spatial concentration as expressed in the dimensions of minor and major axes;
- (3) the general shape of the distribution expressed as a coefficient of circularity, dividing the minor axis by the major;
- (4) the directional bias as indicated by the tilt of the major axis;
- (5) the nature of activity space orbits, with separate ellipses for participation spaces, macro-service spaces; and micro-service spaces.

Such indices of activity space orbits form a good basis for comparing districts (that is, planned against less-planned), population sectors (households with or without children), and different territorial orientations (people who could or could not define a home area).

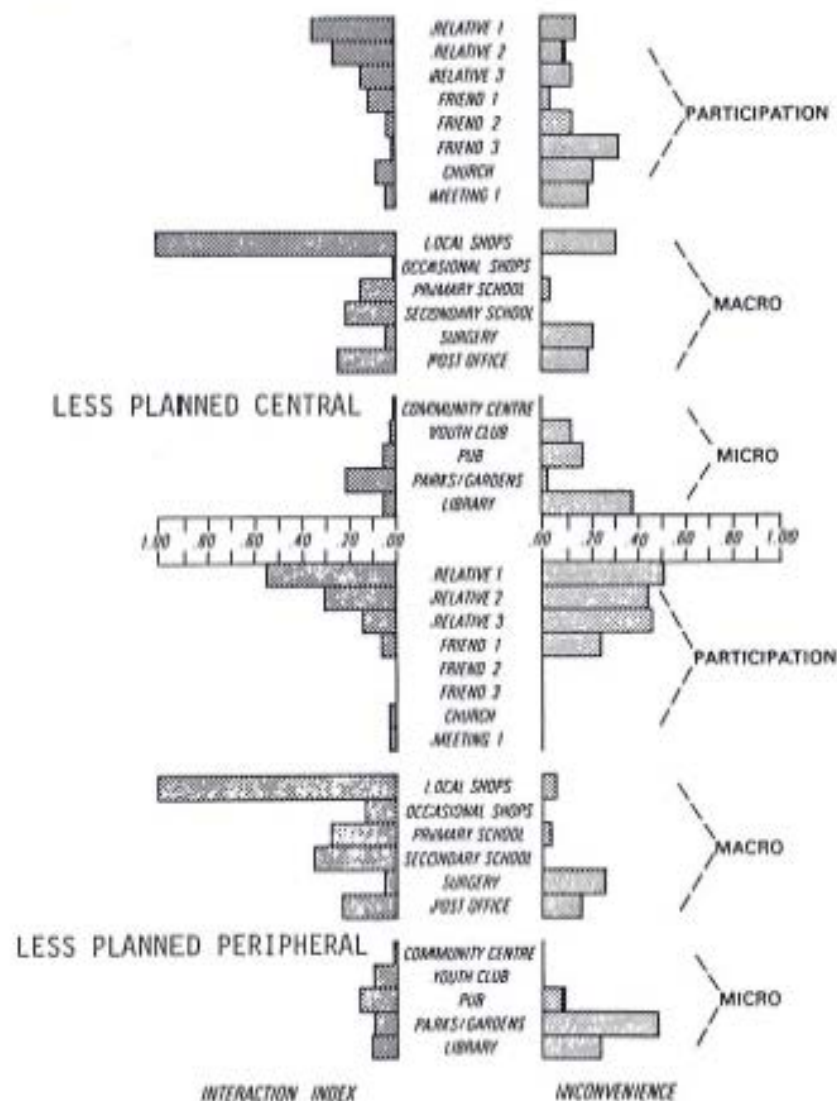
Once the idealized socio-spatial reference system was developed, two major avenues of research could be pursued: (1) the congruence perceived between each of the three levels of spatial experience (activity orbits, territorial identification, and image formation) and overall satisfaction with residential environment; and (2) an overall social space profile for each district based on relationships among the three levels of spatial experience.

The first line of research yielded promising clues about the appropriateness of different residential designs. For example, residents who thought of destinations as near enough were on the whole more satisfied than those who considered them too far away. Those who demonstrated a high degree of territorial identification<sup>3</sup> were more satisfied than those who appeared not to identify with their area. Those whose expectations about site character were realized<sup>4</sup> evinced greater satisfaction than those who felt that their immediate environment did not measure up to their ideal. Sectors of the population varied, to be sure, in their ranking of the importance of destinations (Figure 1.6), of neighborhood identity and of various site characteristics (Figure 1.7), and the differences have implications for planning.

The main thrust of this essay, however, is toward the second question: is there any group consistency in experience of residential environment? Can one discern any consistent pattern of association among the



Figure 1.6: Volume of Interaction and Convenience of Destinations within the Four Estates



Interaction Index: Based on mean monthly time spent traveling to a given destination.

Inconvenience Index: Percentage of respondents who felt a given destination was too far away.

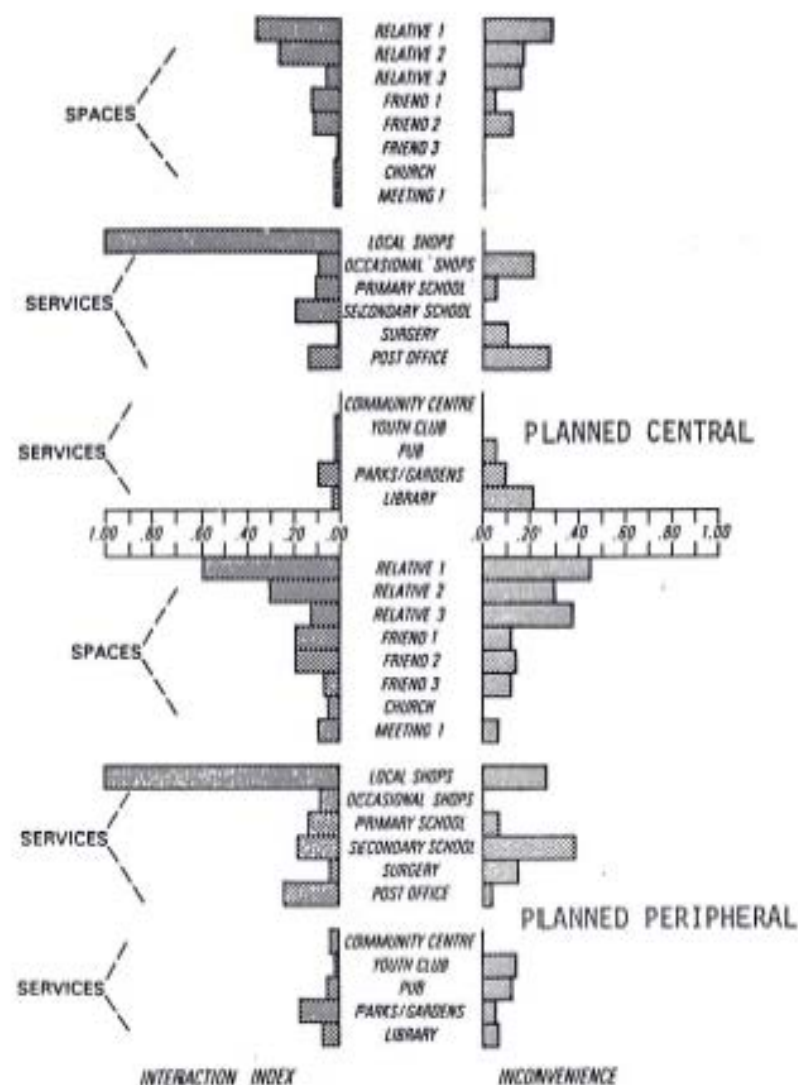
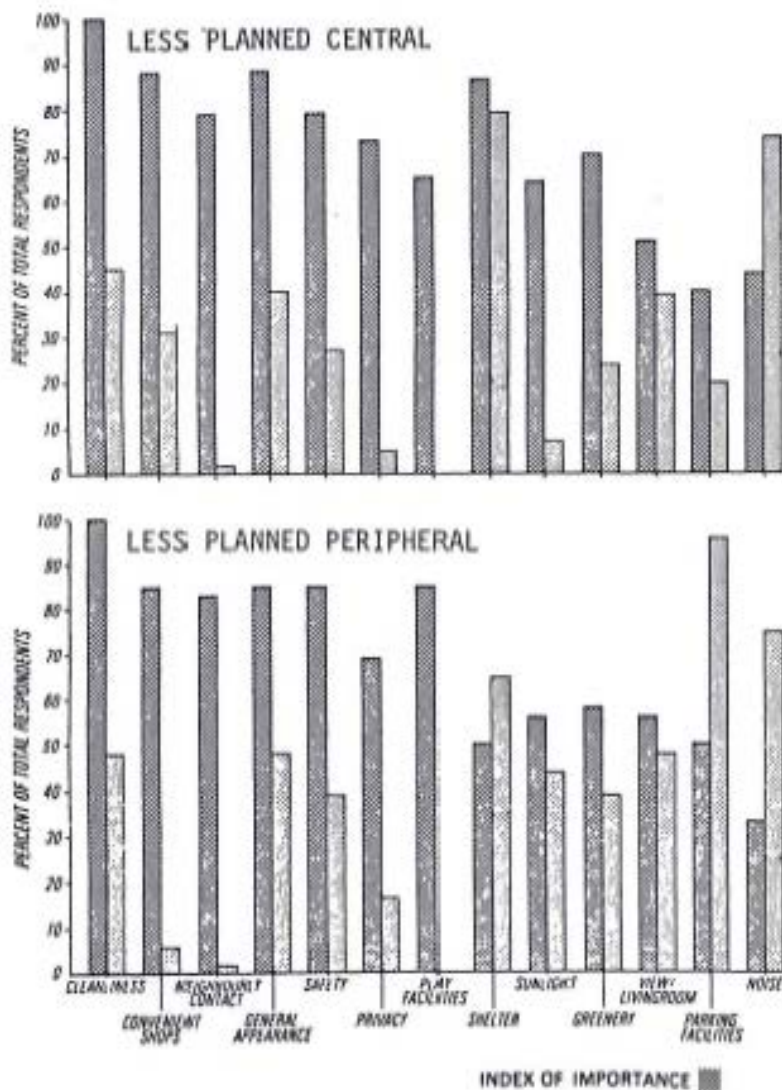
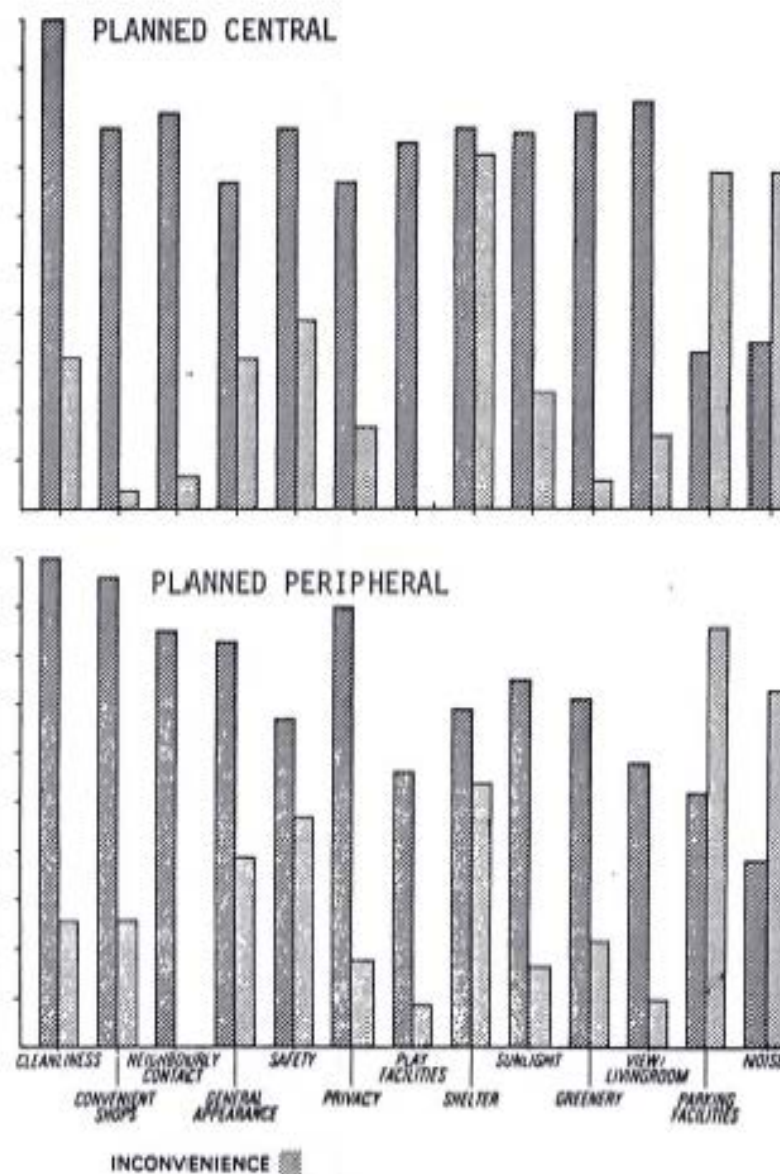


Figure 1.7: Evaluations of Site Characteristics Ranked by Their Importance for the Residents



Index of Importance: Percentage of respondents who considered a particular feature 'very important.'

Index of Inconvenience: Percentage of respondents who found a particular feature less than 'very satisfactory.'





territorial, interaction, and image characteristics of people within given districts? To see how resident groups have endeavored to integrate these different levels, it will be useful to describe briefly the characteristics of individual districts as a whole.

#### *The Centrally Located Planned Estate*

Of all the districts studied, this one has the most integrated pattern of interaction (Figure 1.5). The ellipse describing micro-service-center interaction is not annular but lies within 0.5 TDUs (time distance units = 10 minutes) of the zero/zero coordinate. The slight displacement of its mean center toward the southwest reflects two characteristics of the site: a physical barrier to the north (the River Clyde), and a concentration of services slightly south of the residents' homes. The same characteristics influence the shape of the ellipse describing macro-service-center interaction, but trips for occasional shopping and to secondary school may explain the north-south orientation of the macro-service ellipse. The ellipse describing participation interaction is slightly larger: friends, relatives, and kin are distributed more extensively. But the critical point is that the shift of its mean center away from the zero/zero coordinate is not great. All mean ellipse centers within this estate are located at an average distance of 0.6 TDUs from the original zero/zero coordinates. The relatively integrated nature of this estate's ellipses is reflected in the residents' high degree of territorial identification. Of the 36 respondents, 83 percent always felt at home, 75 percent could define a circumscribable home area, 56 percent had very much wanted to move into their present estate, and only 22 percent expressed any desire to leave the area.

The priorities attached to various features of the local site reveal cleanliness (1.0), view from living-room (0.83), neighborly contact (0.81), and greenery (0.81) to be the most important.<sup>5</sup> Fortunately, residents appeared satisfied with these features (Figure 1.7). Such features as freedom from noise (0.44), general appearance (0.67), and play facilities for children (0.42) were not considered as important. A good neighborhood was more important than a good house to 68 percent of the housewives. The fact that they found features they felt important to be satisfactory no doubt contributed to the residents' overall satisfaction with the environment. Of the inhabitants of all four estates, these people were the happiest: 64 percent here were 'very satisfied' with their area, 58 percent were 'very satisfied' with life in the area. Although no statistical evidence is yet available, it is highly likely that congruence among the three levels of environmental

experience contributed to this overall sense of satisfaction with the residential environment.

#### *The Centrally Located Less-Planned Estate*

The obvious directional bias and the considerable displacements of all mean centers of interaction ellipses away from the zero/zero coordinates for this estate (Figure 1.5) provide a stark contrast with the integrated nesting of ellipses in the other centrally located estate. The areas enclosed within the macro- and micro-service ellipses for the less-planned estate are the largest in the entire sample. The macro-service ellipse is particularly striking: it is twice the size of the next largest, that of the peripheral, less-planned estate. This largely reflects trips to a denominational secondary school south of the Clyde, to churches (south of the estate), and to occasional shops (in the city center). Lacking convenience or shopping services on the estate itself, the housewives had to travel (often on foot, since bus service is not convenient) to shops on a main arterial road northeast of the estate. The mean centers of the three distributions in this estate encircle the original zero/zero coordinates. Whereas shifts of mean centers are unidirectional for the other estates, here each one shifts in a different direction. Thus, when the three types of interaction are viewed together, the resultant ellipse has an annular form.

Because this is a part of Glasgow that many of these housewives consider their own, they display some sense of territorial identification: 53 percent of the 44 sampled could define a circumscribable 'home area,' and familiar landmarks such as churches, railroad yards, even the cemetery, contributed to the feeling of belonging. Moreover, 73 percent always 'felt at home' in the district, 53 percent had wanted to move into the area, and only 26 percent wanted to leave. Even among those who were less than very satisfied with the area, only 40 percent desired to move away. Site characteristics considered 'very important' were cleanliness (1.0), general appearance (0.88), convenient shops (0.88), and shelter (0.86). That 'view from living-room' was not emphasized may reflect the fact that windows were too high up for most people (Figure 1.7).

Most of the features residents considered important, however, they did not find satisfactory. They confront a peculiarly squalid landscape, with large-scale railroad and engineering works of the late nineteenth century, a cemetery, and a generally grey-black industrial landscape on three sides. A passenger train passes beneath their windows twice every hour. Concrete, noise from traffic, and the lack of greenery or play



space characterize the immediate environs. Unsatisfactory bus service, elevators nearly always out of order, rifled telephone kiosks, and a fear of 'rowdies' make life in the estate peculiarly hazardous and unsatisfactory for many residents, particularly the elderly. Why, then, the relatively high degree of satisfaction with life in the area? Whereas only 40 percent of the residents were 'very satisfied' with the area, 58 percent were 'very satisfied' with life in the area. Could it be that familiarity with the surroundings, a sense of belonging to the locality, compensates for the lack of amenities?

But the relatively high degree of satisfaction derived from this sense of belonging to the place should not be used as a justification for neglecting the specific sources of strain noted above. The provision of macro-services within a ten-minute radius of the estate would lend greater cohesion to residents' service-center orbits. Better transportation facilities might not reduce the spread of participation spaces, but they could reduce the strain for those who feel their participation destinations are too far away. This district demonstrates the need to integrate the planning of residential areas with that of the city as a whole. Many of the sources of strain in this estate emanate from city-wide functions, such as rail transport, job locations, arterial routes, and school locations. Located close to the center, the estate pays for city 'efficiency' while reaping few of its benefits.

#### *The Planned Peripheral Estate*

The provision of 'standard' services is apparent in the micro- and macro-service ellipses for this estate (Figure 1.5). The mean center of the micro-service ellipses (maximum axis 0.55; minimum axis 0.5 TDUs) is slightly displaced toward the south, reflecting the location of the new shopping center on the estate. The southerly displacement of the mean center of the macro-service ellipse is explicable in terms of occasional shopping downtown, visits to doctor, friends, relatives, and special interest groups in northwestern Glasgow, from which most of the residents came. In terms of planning standards, it is interesting to see that these service ellipses correspond with the outer limits of the ideal time-distance for the services; only the slight displacement of their mean centers detracts from the success they reflect in minimizing time traveled.

Participation shows a definite linear trend (coefficient of circularity 0.65) with the major axis inclined toward the central business district. This reflects the visits to kin and special interest groups in northwestern Glasgow, however, which are not necessarily trips to the CBD. The area

of this ellipse is the largest for that class in any estate. This may reflect the location of traditional kinship ties or the willingness of upwardly mobile families to travel longer distances for special interest groups.

Of the residents of this estate, 45 percent ( $n=48$ ) felt that their closest relative was 'too far away.' Given relatives' high priority ranking among all social interactions,<sup>6</sup> the inconvenience of reaching them presumably induced significant strain, but the length of residence in the area (87 percent had been there more than three years) and the convenience of most services seemingly had led to a sense of territorial identification: 66 percent could define a circumscribable 'home area,' 73 percent always 'felt at home' in the area. In fact, among those who were less than very satisfied with the area, only 40 percent expressed a desire to leave it. The similarity between these dispositions and those of the residents in the centrally located less-planned estate suggests some kind of trade-off between planning amenities and sense of territorial identification.

The site features most important to residents of this estate were cleanliness (1.0), convenient shops (0.96), and privacy (0.90) — characteristics generally considered important by upwardly mobile suburban populations (Gans, 1959). Such social considerations as neighborly contact also ranked high (0.85), but esthetic features were most frequently remarked on. In their free responses, residents said they like the area for its clean, healthy, and open atmosphere: 'It's good for the children, away from the noise and congestion of the city.' The high degree of satisfaction with the area (81 percent) and with life in the area (64 percent) reflects the congruence between residential aspiration and achievement. The site features considered most important were by and large satisfactory to residents. Only the difficulty of access to friends and relatives appeared to induce some strain.

#### *The Less-Planned Peripheral Estate*

The micro-service ellipse of this estate contrasts sharply with that for the planned peripheral estate (Figure 1.5). The area enclosed within this ellipse is almost three times as large as the other; the displacement of its mean center is 50 percent greater. The macro-service ellipse is almost twice the size of its planned counterpart, and the displacement of the mean center is almost twice as great. By contrast with the roughly annular tendency of service ellipses in the planned peripheral estate, the ellipses here are linear. This estate's participation ellipse is rather small; only half that of the planned peripheral estate and definitely oriented toward the CBD. Again, however, this need not reflect trips to the CBD

itself. Instead, the directional bias probably reflects visits to that section of Glasgow, slightly east of the city center, from which many residents came. Especially important are visits to celebrated football grounds (Ibrox, southwest of the city center, and Parkhead, east of the city center) and to special interest groups associated with these grounds.

The physical and social isolation of this estate is reflected in residents' relatively low degree of territorial identification. Only 50 percent ( $n=48$ ) said they 'always felt at home' or could define a circumscribable 'home area'; only 23 percent had very much wanted to come into the area, and 65 percent very much wanted to leave it. And of those who were less than 'very satisfied,' 80 percent very much wanted to leave.

Estate features considered important were by and large those that housewives felt were lacking in their immediate environs: cleanliness (1.0), convenient shops (0.85), general appearance (0.85), safety (0.85), and play facilities for children (0.85). In terms of most of these critical criteria as well as others — privacy (0.69), view from living-room (0.56), sunlight in all rooms (0.56), shelter (0.50), and freedom from noise (0.33) — the estate failed to meet residents' aspirations.

#### Toward an Integrated Perspective on Spatial Experience

At each level or mode of spatial experience, one finds a set of clues to design appropriateness. Yet there is no common metric, no coordinate system that can accommodate all the processes involved. Data for basic activity patterns — Cassirer's (1944: 42-7) 'organic level of spatial experience' — have been analyzed in a Cartesian coordinate system, but how is one to relate this to perceptual experiences of space (Michelson, 1966; Harvey, 1970)? Frequently visited places and localities of high social significance apparently stand out; points never visited, though nearer home, fade into insignificance. One appears to be dealing with a topological field, expanding and contracting according to a person's perceptual memory, normal orbits of movement, and ideas about places. And, in considering images — those abstractions about places and space that people consciously or unconsciously construct — one is dealing with a symbolic level of spatial experience that demands a still different metric and coordinate system.

If one's main purpose is to unravel the dynamics of discrete processes involved in different levels of spatial experience, then metrical coordination is a gargantuan task. But if one believes that spatial experience in daily life may be perceived as a whole, then the focus of attention

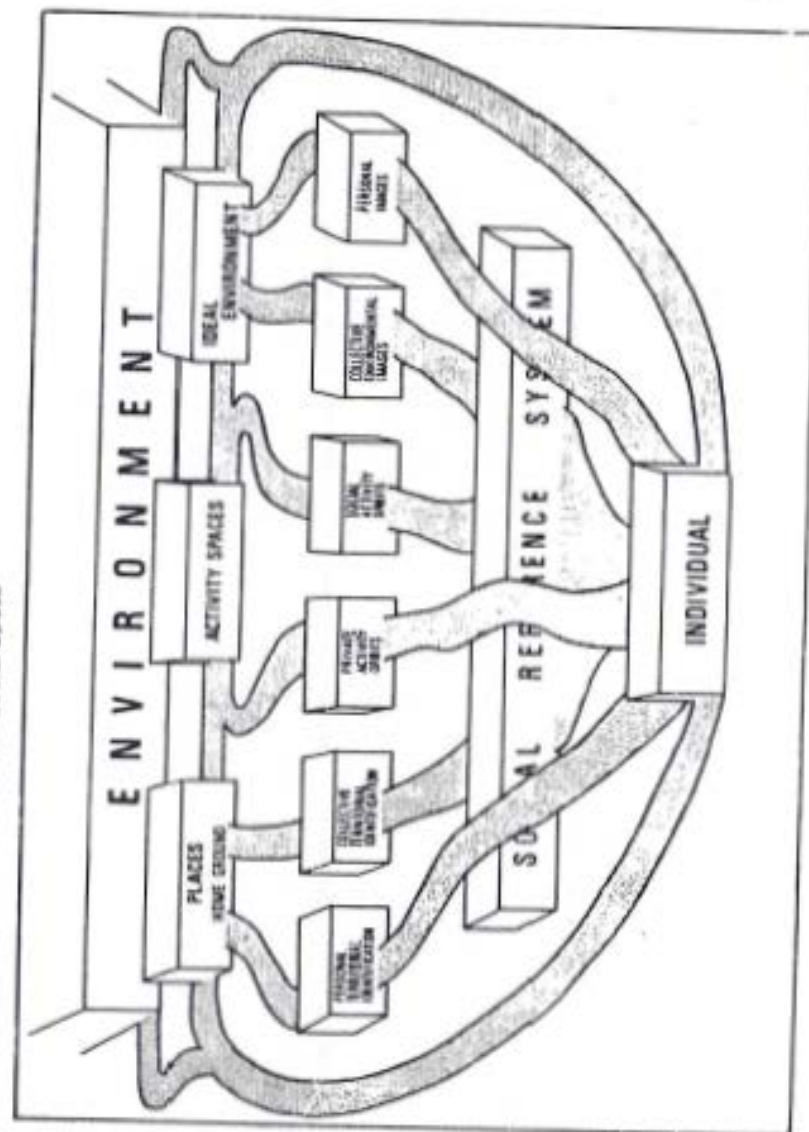


Figure 1.8: An Operational Model of Social Space



changes. One poses the question of how social reference systems, collective memories, and customary forms of interaction are expressed in the way groups assign a common meaning to space. One is concerned with the felt nature of 'experienced' spaces — for example, 'safe' and 'dangerous' places, sacred and secular spaces, focuses of social activity, highly valued zones that each group defines in its own appropriate style (Suttles, 1968; Strauss, 1961).

The main conceptual and technical points made in this chapter are summarized in Figure 1.8, a model for an integrated perspective on environmental experience. The social reference system is seen as the critical measure of significance and meaning on several dimensions of environmental experience. Whereas the Cartesian approach to measuring discrete processes seeks order and generalization, the existential view suggested here seeks meaning, specifically that ascribed to various kinds of order surrounding residential environments. Such meanings may be uniquely defined by households, but social reference systems may project collective social meanings. Such integration is evident in the consistency of the externally manifest behavior and the free-answer responses of our Glasgow residents.

## Conclusion

What hypotheses about spatial behavior can be derived from this pilot study? What implications are suggested for the planning of residential areas and the provision of social services? More generally, what can the existential perspective contribute to our understanding of cities?

It may be useful first to specify the inferences that cannot justifiably be derived from the study. One is the suggestion that people in dilapidated sections of our industrial cities should be ignored, 'saved' from the redevelopment bulldozer, simply because they appear content with their traditional and cohesive life-style. Some studies, glorifying the esthetic and anthropologically exotic characteristics of slum communities, have taken redevelopment and renewal planners to task as arch-villains bent on destroying the beauty of a viable socio-spatial order (see Jacobs, 1961). While large-scale 'bulldozer' renewal programs can certainly be charged with insensitivity and have perhaps occasioned more problems than they have sought to eliminate, it is nonetheless inevitable that there be public intervention in the construction and design of residential areas. The redevelopment and renewal of slum areas, however, demands the joint response of both residents and external

systems. This study attempted to isolate certain criteria and guidelines for a more productive dialogue between people and plans, between residents and planners of housing developments.

It is also a false inference that people vary so in their aspirations, tastes, and perceptions of the ideal residential environment, as to make it impossible to derive generalizations for planning. While the existential lived experience of individual families may ultimately be unique, certain consistencies in their overtly expressed attitudes and behavior patterns nonetheless contribute to their overall satisfaction with their environments. The example of 'at homeness' may illustrate this point. Among the variables associated with residential environmental satisfaction, the most significant indicated a sense of belonging to the area. The components of this phenomenon vary among districts, families, and social strata, but the phenomenon itself (an existential variable) clearly deserves further exploration. Within the small sample studied, certain measurable variables — duration of residence, location of district, stage in the family cycle, type of social interaction — appeared to be consistently related to the subjective experience of 'at homeness.' Place identification within the centrally located planned estate, for example, accompanied a high index of interaction among friends and relatives, whereas place identification in a peripheral estate accompanied a relatively higher index of interaction with service centers. This suggests that people who remain near their traditional homes continue to base their feelings of 'at homeness' on proximity to kin and friends, whereas those on the periphery require the interaction generated around services to feel 'at home.' While duration of residence in the peripheral estates is strongly related to the presence of 'home area,' this is far more evident in the planned than in the less-planned estate. This is certainly an argument for the provision of services, particularly in areas where residents have been moved far from their traditional homes. It has often been argued that residents of whole blocks or streets be moved together (Young and Willmott, 1957). Recent experiences have shown, however, that over time people are capable of building social networks in new housing estates (Young and Willmott, 1963). As suggested in a development plan for Middlesbrough (Glass, 1948), services such as schools, shops, and post offices could become the catalysts for social interaction if strategically located within a redevelopment area.

Yet it is not so much the quantity and spacing of services that raises fundamental issues as the quality, scale, and social relevance of these services. Several instances could be cited from our study in which services were said to be conveniently located, but which were the main



focus of complaint in open-ended responses. Often, too, services were said to be convenient though seldom, if ever, used. In the case of doctors' offices and places of worship, for example, people sometimes preferred to travel longer distances in order to maintain contact with familiar doctors, teachers, and religious communities. Familiarity, ease of social interaction, and a variety of other factors appear to weigh quite as significantly as physical access in residents' evaluations about services.

Does this imply better transportation facilities so that people can continue to travel to familiar shops, clinics, churches, and friends and a moratorium on service provision within new residential areas? A good case could be made for transport facilities to traditional social destinations (for example, relatives and special interest groups), but a similar logic cannot in the long term be applied to services. Here the distinction between macro- and micro-services is critical. While most communities need a planned network of schools, shops, post offices, and health facilities, they vary widely in their needs and tastes regarding such micro-services as youth clubs, community centers, play areas, libraries, and nursery schools. The former should be considered mandatory from the start, the latter could be added as people grow used to one another and to their new environments.

The central implication of our study is this: the success of a residential development is contingent on the existential meaning it acquires for its residents. Who better than they can derive and infuse meaning into an environment? As far as possible, then, decisions concerning building design specifications and the range and quality of services should emerge from an active dialogue between order and meaning, the rational spatial order of technological, economic, and architectural standards and the growing self-awareness of new communities. For demand cannot be considered solely in terms of the traditional life-styles of stable communities in the slums. This would yield a set of standards which might be quite as inflexible, quite as insensitive, as standards based on the efficiencies of supply. On the demand side, one has to consider a dynamic, changing surface, evolving as people move spatially, socially, and communally. Only when a particular area design has acquired social meaning, only when its neighborhoods and physiognomy are stamped with the character of its residents and its service facilities are attuned to their needs does an ecological harmony between people and milieu emerge (Sorre, 1957; Chombart de Lauwe, 1956: 61; Gerson, 1970; Jacobs, 1961).

The problem ultimately becomes one of education both for suppliers (politicians, planners, architects) and demanders (residents). The supply structure should not be regarded as a prefabricated network of physical

provisioning rationally allocated according to the constraints of technological efficiency, scale economies, and market-area potentials. It should be regarded as a potential supply system, a potential to be tapped and molded by the consciously articulated demands of resident communities.

How to enable communities to grow and develop to the point of appreciating and claiming their rights and responsibilities within the framework of the urban system as a whole is, of course, the critical problem. In a civilization imbued with the values of individualism, however, is it not likely that people feel responsibility primarily for environments they have helped create, for services they have helped organize? Is it not conceivable, then, that the collective challenge of designing and provisioning their environments could become a learning experience, generating a sense of community responsibility and contributing to identification with place? Why have we been so hesitant to experiment at different stages of the relocation process?

Why not, for example, in some areas subject to renewal, present the range of available choice a year or so beforehand to all those who are about to be moved? Ideas could be exchanged and action initiated upon consultation and collective decision. Broad decisions of building style and layout could be based on specific sociodemographic characteristics of the population, and a basic supply of macro-services built in prior to occupancy.

Through preparatory dialogue and interaction, a sense of collective community consciousness might emerge. After relocation, families would still be able to count on the support and challenge of a preexisting social order, and the business of finishing the estate design could be confronted collectively. The number, quality, and range of community centers, clubs, gardens, swimming pools, and the like could be decided as need arises and as budgetary and other constraints allow. This should prevent the appalling redundancy evident in many planned environments, where empty community centers and looted 'youth clubs' offer glaring evidence of inappropriate provision.

Such experimentation would counteract the conventional model of fitting a population into an environment prefabricated on the basis of technological, political, and economic constraints. But it would also check the utopian or Promethean model of having everyone choose his own house style and location. It calls for education toward responsible community appropriation of the rights and responsibilities for the design of environments within the context of the urban system as a whole.

The value of this model as a framework for dialogue with planners depends on refinement of analytical techniques and on comparative



studies in other contexts. It provides an alternative perspective on the planning process, taking into consideration socially determined influences on demand as well as the efficiencies of supply. The value of the concept as a framework for interdisciplinary research on environmental behavior, however, poses unresolved conceptual and technical problems. The aim of this exploratory investigation in Glasgow was to open a dialogue between social scientist and planner to provide a framework in which each could contribute his unique disciplinary expertise in a climate of mutual concern over a planning dilemma. It has to some extent achieved this objective and has also pointed to ways in which research efforts on the behavioral implications of building design can be coordinated.

'The way to get at what goes on in the seemingly mysterious and perverse behavior of cities,' wrote Jane Jacobs (1961: 8), 'is to look closely, and with as little previous expectation as is possible, at the most ordinary scenes and events, and attempt to see what they mean and whether any threads of principle emerge among them.' Particularly in residential areas, the 'ordinary scenes and events' should be the primary criteria for defining design appropriateness, yet so often they have either been ignored or dismissed as extraordinary by social scientists and planners.

To discover the principles that underlie ordinary behavior in urban social worlds, and then to design a physical framework to accommodate it, are the challenge and the hope of the seventies. It is scarcely conceivable that this can be achieved without a sensitive and more unified perspective on the varying life-styles of urban communities. Planners lacking an integrated understanding of the existential character of urban life cannot be expected to design and organize its physical shell. Joint exploration of the issues involved, however, and the increased participation of citizens in the planning process itself, may enable communities, in Aristotle's phrase, to 'not merely come together in cities to live, but to stay to live the good life.'

## Notes

1. This method was used for comparability with other studies of this nature (see Davis and Roizen, 1970) despite the limitations of verbally expressed 'satisfactions' as indicators of people's relationships to their environments. However, satisfaction with life in the area is a potentially better indicator of livability than conventional measures of satisfaction with dwellings and with the physical characteristics of the area.

2. The employment of geostatistical techniques in recent geographical research has demonstrated the value of the standard deviational ellipse as a measure of areal distributions (Smith *et al.*, 1968; Caprio, 1969; Hyland, 1970). The mean center of the distribution is located at the intersection of the means of the x and y axes of an arbitrarily placed Cartesian grid. Orthogonal axes are constructed through this point, and the deviations from the y axis are calculated for each location in the distribution. The standard deviation is plotted along the appropriate x axis (positive and negative). The axes are rotated through the degree 0 (usually 5° or 10°), and the procedure is repeated until the axes have been rotated through a full circle. The tracing of the standard deviations along the rotating orthogonal axes produces the standard deviational ellipse.

From this one technique, there is a yield of several comparative quantitative measures. For an areal distribution, the mean center provides a measure of the central tendency; the orientation of the major axis of the ellipse shows the locational trend; the ratio of the minor to the major axis of the ellipse gives an index of circularity, while the shape and area of the ellipse are further indicators of the dispersion. This technique has generally been applied to the distribution of data in geodesic space, but our data on individuals' perceptions of time-distance were non-geodesic. Variations in perceived distance were assumed to be either minimal or normally distributed. Ellipses were used primarily for descriptive rather than analytical purposes. (The writer is indebted to Gerard Hyland for this analysis of activity spaces.)

3. Territorial identification was measured in terms of (a) feeling at home, (b) ability to define a home area, and (c) desire to move into the area or no desire to move away from the area, and (d) duration of residence in the area.

4. Various design characteristics were ranked in terms of their perceived importance and then evaluated by the residents. Figure 1.7 graphically places the evaluation of site characteristics in the context of respondents' images of ideal residential environments.

5. The 'Index of Importance' for each feature was based on the percentage of the population who considered it to be 'very important'; for example, 0.81 for 'greenery' means that 81 percent of the respondents considered that feature very important.

6. Destinations were ranked within each estate in terms of an interaction index based on mean monthly time spent traveling to that destination.

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