CRITICAL ISSUES IN HUMAN ECOLOGY

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C O N T E N T S

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CHAPTER ONE

I N T R O D U C T I O N

A) Scope of Thesis.
B) Some Unfinished Business in Classical Human Ecology.
C) Defining Classical Human Ecology.
D) A Brief Introduction to the Background in which Classical Human Ecology emerged, flourished and declined.

A: SCOPE OF THESIS

a) THE PRIMARY AIM IS TO RECOUNT THE CRITICISMS.

Classical Human Ecology (C.H.E.)[1] owes something to the dominant ideas in biology, economics and philosophy of the eighteenth and nineteenth centuries. The thorough-going student would no doubt, in examining issues in ecology, carry his studies not only back beyond Darwin to Malthus, but he would also discuss the deeper philosophical issues involved. The distinct ideas of Descartes, the nominalism of Ockham, the contributions of Hobbes and Hume and many others, would all be part of the background scene. It goes without saying that Charles Darwin's work has a special relevance; also the Social Darwinists and early sociologists, who, because they are closer in time to the C.H.E.s, have perhaps a prior claim on our attention. While this thesis does not totally ignore the ramifications of this vast field the scope is very narrowly defined. Attention is almost exclusively focused on the C.H.E.s. The intention is to concentrate on the original material not so much in the belief that it is important to rediscover a "lost vitality" as Turner (in Park, 1967:ix) suggests, although this suggestion is not entirely without merit,[2] as in the belief that there is a need to appreciate

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(1) See p. 6f.for definition and discussion.

(2) Not only the demerits are shown although this is the major purpose.

the reasons for the original vitality and the errors made because of it. What I wish to do is to recall the criticisms which mounted up against the Chicago school, and to present them systematically.

b) THE NEED FOR A SYSTEMATIC TREATMENT OF CRITICAL ISSUES.

The need for such a treatment has come to me from three sources. First, from a study of general textbooks and other books termed secondary material[1] (because they borrow from criticisms made originally in the late thirties and early forties) a very strong impression was gained of criticisms or issues mentioned in an ad.hoc. fashion. The discussion was haphazard, and with notable exceptions,[2] inadequate. Secondly, this impression was confirmed by Sjoberg who pointed out a need for some systematic treatment of the said issues.[3] Naturally each theorist is entitled to chose those criticisms or issues which seem to him to be pertinent. This is not denied. On the other hand there was little hint, even in those passages that purported to offer a summary of such issues,[4] of any systematic treatment. Thirdly, as I read through material I have classed as falling under the rubric "Modern Ecology," I became convinced that a look-back on the old controversies would prove worthwhile. The need for this is argued more thoroughly later on (see Chapter 5, C.).

c) THE PROCEDURE TO BE ADOPTED.

An evaluative discussion presupposes the existence of criteria against which the material will be measured - and it is important to be explicit about my assumptions and procedure. Both Martindale

(1) a) Weber,M.: The City. 1958. See Don Martindale's article "Prefatory Remarks."
b) Reissman,L.: The Urban Process. 1964.
c) Sirjamaki,J.: The Sociology of Cities. 1964.
d) Gist,N.P., Gava,S.F.: Urban Society. 1964
e) Mann,P.H.: An Approach to Urban Sociology. 1965.
f) Hauser,P.M., Scnore,L.F.: The Study of Urbanization. 1965. See Gideon Sjoberg's article, "Theory and Research in Urban Sociology."
g) König,R.: The Community. 1968.
h) Bell,C,. Newby,H.: Community Studies. 1971.
i) Nottridge,H.E.: The Sociology of Urban Living. 1972.

(2) Reissman's (1964:Ch.5.) is the most thorough.

(3) This is discussed at some length in section B of this chapter.

(4) Nottridge (1972) is a recent example.

(in Weber, 1958:22) and Turner (in Park, 1967:xxvi) suggest a two stage approach to the development of ecological theory among the C.H.E.s (cf.Park, 1939; 1952:251). On the other hand Alihan's (1938:11) major critical work sees the whole "ecological conceptual frame" as built upon a dichotomous distinction between the terms "community" and "society." As my major purpose is to recall systematically the "primary critical material"(1) it has seemed to me a good idea to identify what I term major theory generating concepts. There are three such concepts discussed in the three following chapters: The Natural Area Concept; The Ecological Concept : Argument by Plant and Animal Analogy; The Socio-Cultural Concept : Argument by Dichotomy.(2) These three chapters mark what I see to be three stages in the development of the C.H.E. These stages are not meant to be mutually exclusive. There is the initial stage in which the focus of attention seems to have been more concerned with a spatial analysis similar to a geographic orientation: the Natural Area concept. Then came the ecological development, regarded here as argument by analogy; and following this a final stage in Park's concern, in the 1936 and 1939 papers, with the manner in which the biotic aspect was related to the moral aspect - i.e. a concern with ironing out the problems of the dichotomous assumptions which arose more particularly out of the second, ecological stage.

Using these three theory generating concepts I refer to the original writings, and to the criticisms (both primary and secondary) levelled against them. After each discussion a summary and conclusion follows in which the criticisms, or issues as I have termed them, are identified, defined and related to the above discussion. With regard to definitions I intend to be quite pragmatic and to borrow from the labours of others. My procedure will be as follows: First, Theodorson and Theodorson's (1970) A Modern Dictionary of Sociology, will be consulted. The merits of this book are, not only that it is recent, but more important, it is the work of a single pair of authors working together, and will therefore provide some systematic and consistent treatment. Secondly, other methodological or definitional works were

(1) Theodorson (1961) has conveniently collected a number of essays together under the title "Criticisms of the Classical Position," and it is to these that I refer.

(2) For a summary of the components of these major theory generating concepts cf. Chapter 5,p.129-130.

needed to deal with the special issues which arose in C.H.E. - here due acknowledgement will be made in the text. It is intended that the generally acknowledged criteria of methodological evaluation will be used, such as consistency in deductive logic, clarity and consistency in the use of definitions, adequacy of empirical evidence, etc.

While no claim to comprehensiveness or to lack of bias is made in the selection and discussion of the issues, the list proposed does make some contribution to a systematic treatment of issues otherwise mentioned in a variety of places in what seems to be a haphazard manner.

d) THE SECONDARY AIM : AN APPLICATION OF ISSUES TO MODERN ECOLOGY.
A final chapter with some preliminary remarks on the application of this scheme to Modern ecology is made.

e) A BRIEF STATEMENT OF AIMS.
Formally stated, the subsequent analysis aims at identifying systematically some issues in Classical Human Ecology and discussing them in the light of methodological criteria derived from the above mentioned sources. It is hoped that this discussion will contribute to a more systematic evaluation of criticisms or issues in Classical Human Ecology; prove to be of some use in providing constraints in contributions to Modern Ecology.

B: SOME UNFINISHED BUSINESS IN CLASSICAL HUMAN ECOLOGY.

a) CLASSICAL HUMAN ECOLOGY TODAY.
Considerable time has been spent digging a hole for the old model, and it would seem that for many Classical Human Ecology is well and truly buried. Schnore (1965:33) tells us that of the 4200 members of the American Sociological Association only 100 selected Human Ecology as a major interest - and this in 1960. More recently Wendell Bell (Greer et.al,1968) notes that "though it has been

revised it is not a dead horse even today - except in the sociological fraternity." However, even in the sociological fraternity the case is not finally sealed for there are still signs of continuing interest in Classical Human Ecology. Not unexpectedly perhaps, but still it is worth recording, that recent works in urban sociology[1] still reproduce what has become the Chicago school's badge of identification - the concentric zone diagram of Burgess (complete with river). But this is only symbolic. Other testimonies to an abiding interest in the C.H.E.s lie in the fourth posthumous publication of Robert E. Park (Turner (ed),1967);[2] and in the excellently received book by Coser we note that Park is among the twelve carefully chosen "masters" of sociological thought. Besides this there is the very interesting reference to Park by Buckley (1967:19) with regard to process analysis.

Mere interest though is perhaps too slight a reason for dragging someone up from limbo. There is, however, some unfinished business; and with the new interest in ecology it seems that this would be a good moment to look again at the old issues.

b) THE NEED FOR CLARIFYING THE ISSUES.

In a recent article reviewing "Theory and Research in Urban Sociology" (Hauser and Schnore, 1965:159) Sjoberg, speaking of the "historical accident" that in America early students of the city were heavily committed to ecology, makes this comment:

> Some theoretical dilemmas afford the urban sociologist with a unique opportunity to contribute to social theory more generally. For one thing, the urban field is a major battleground for those who stress the impact on urban life of "objective conditions" - the external environment, population structure, and the like - and those who emphasize, for instance, the role of social or cultural values as a key determinant of the so-called objective conditions and of human action in general. Urban sociologists could make a major contribution if they would clarify, perhaps even resolve, some of the issues that separate the antagonists: the "materialists" and "non-materialists". (My emphasis).

He goes on to say in a footnote (1965:183):

> The cleavage between the "materialists" and the "non-

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(1) e.g. Timms, D.W.G.: The Urban Mosaic. 1971.
Mann, P.H.: An Approach to Urban Sociology. 1965.
Pahl, R.E.: Patterns of Urban Life. 1970.

(2) A fifth publication, Elsner, H.Jr.(ed): Robert E. Park - The Crowd and the Public, 1972, has just been brought to my attention. It has not been possible to refer to this book in this text.

materialists" in sociology is generally ignored in survey studies dealing with social theory; see, for example, Don Martindale, The Nature and Types of Sociological Theory (Boston: Houghton Mifflin, 1960). But this neglect is not an index of its importance, for the differing assumptions about reality influence one's choice of research problem and explanatory variables. The "materialists," who differ to some degree among themselves, reject the study of values, attitudes, ideas, or beliefs or else seek to predict these by studying objective conditions. Moreover, they tend to examine the social order in highly mechanistic terms. A comparison of "materialists" and "non-materialists" is complicated by the heterogeneity of the latter.

It is interesting to note that when Hollingshead (1947, Theodorson, 1961:114) formally proposed a "withdrawal" from Human Ecology (i.e. C.H.E.) in 1947, he suggested a "surrogate" or substitute: "the cultural factor." While this need not concern us here the point is taken up later on. (Chapter Five).

Two points are made:

1. It would be pretentious to claim that any of these issues is finally resolved in this thesis. The preliminary tasks, so far as Classical Human Ecology is concerned, are primarily clarificatory and systematic, and it is this more limited task we aim at here.

2. So far as Modern Ecology is concerned the point is that there were clashes of opinion in the past, and I believe that one of the best contributions sociology can make to the present lies in digging up its own past.

C: DEFINING CLASSICAL HUMAN ECOLOGY

a) TWO POINTS NEED TO BE MADE:

First, it is proposed that Park's work be treated as of a piece. Park is singled out for special mention as he was undoubtedly the most persistent in his commitment to an ecological explanation. He is the generally acknowledged "father" of C.H.E., and it is to his writings more than to others that we turn to discover the ramifications of basic C.H.E. assumptions.

Second, following a now conventional description (cf. Bell and Newby, 1971:92), it is proposed that the writings of the C.H.E. be treated as though they were unified by the same general assumptions: "They are unified not so much by their methods, though they all tended at some stage to tramp the streets, as by the general ecological model of the city, first formulated by Park and elaborated by Burgess and by their field of interest: Chicago." Bell and Newby refer, as is frequently the case, to the C.H.E.s as a "school", again indicating thereby some common commitment or approach.

b) C.H.E. AS A "SCHOOL" OF THOUGHT.

The C.H.E.s themselves spent considerable energy in attempting to arrive at a definition of human ecology. The complexity of these discussions derives from the fact, as Alihan (1938:8-10; 108-135) noted so clearly, that "Characteristic of the ecological school is its tapping of many sources for its conceptual framework." Quinn (1950:3-11) has offered a convenient summary of the various individual approaches which he describes as "seven contrasting points of view." Basically what he does is to trace the commitments back to the original sciences from which a point of departure is made. While it is true that, for instance, Park (1916;1952:1-2)[1] started from a spatial and geographic point of view and later incorporated within this framework an ecological elaboration, it would be a mistake to regard these views as "contrasting." Also, while it is true that McKenzie's conception of human ecology appears to have had more of an economic orientation than Park's, again it would be a mistake to regard these as "contrasting" viewpoints, for they all shared in an interest in classical economics (cf. Sjoberg 1965:164) and were all fascinated by differences in land values. This is not to say that there were never any disagreements among them in emphases or even in particulars (e.g. cf. Park 1929; 1952:189), though generally speaking these are not prominent. Indeed, as Theodorson (1961:4) points out, "McKenzie did not criticize Park's exclusion of culture from ecological analysis, nor specifically challenge the basic tenets of classical ecological theory."

c) PARK'S THOUGHT REGARDED AS UNITIVE.

Park's work itself was not consistent, and over a period of some thirty years to expect that it would be, would seem to be unreasonable. Moreover, as Coser (1971:357)(cf. Janowitz 1969/70:xiv) points out,

(1) Where two year dates are referred to in the brackets, the first indicates the date of the original publication.

Park was not a tight theorist. Nevertheless, at the same time, from 1916 to 1939 (the period in which papers on ecology are produced) there is no dramatic break in his thought. It was only in 1938 that Alihan's book appeared which marked the onslaught of heavy criticism. As Alihan (1938:xi) stated, testifying to the general unity of approach,

> While certain changes and modifications in the ecological theory and methods may well be expected, it has been surmised from the analysis of the development of the school since its inception that it has persisted in its fundamentals and that whatever changes may occur will not markedly affect the essence or the direction of the school. There is apparent, moreover, continued adherence to these fundamental principles in the great majority of the individual factual studies.

This could be applied more specifically perhaps to Park than to any of the other writers.

d) THE BASIC ASSUMPTIONS.

Martindale (1958:22) remarks in a footnote, that "In 1918 Park borrowed some concepts from the plant ecologist and turned them into a unified explanation." This is undoubtedly a reference to the major work, Introduction to the Science of Sociology, 1921,1924, by Park and Burgess in which basic ecological concepts formed titles of important chapters: Competition, Conflict, Accommodation, Assimilation. Alihan (1938:9) succintly points out,

> As the name of their disciple indicates, they have leaned most heavily upon plant and animal ecologies, particularly the former, on the assumption that man is an organic creature and therefore subject to the general laws of the organic world and that the behavior in plant and animal communities is parallel to certain aspects of behavior in the human community. Thus Burgess claims that "the processes of competition, invasion, succession, and segregation described in elaborate detail for plant and animal communities seem to be strikingly similar to the operation of these processes in the human community."

Most of the writings to which we shall refer were written during a period, when, as Shils (1961:1439) puts it, "as children of their age, they came under the almost cosmic weight of Darwinian influence. They therefore believed in natural processes of evolutionary growth." The basic assumptions therefore could possibly be in short labelled Darwinist. Gettys' (1948; 1961:99) summing up of this situation is along this line: "The Darwinian formula appears extensively throughout the theoretical framework of the school," but adds that "the influences of certain geographers and economists is apparent."

e) DEFINITIONS OF CLASSICAL HUMAN ECOLOGY.

This impression (of a reliance on Darwinism or social Darwinism and upon classical economics as well as geography) is well attested in Park and Burgess' major work mentioned above. Interestingly though a major discussion of the nature of Human Ecology must be sought elsewhere (cf. e.g. Park,1916;1925:1-2; 1926;1952:165-166; 1936;1952:153-155; McKenzie,1925:63-64; 1926;1961:30; 1931). It is not the intention to enter into a major definitional discussion at this point, for this has been done elsewhere on several occasions (cf. Wirth, 1945;1961; Hollingshead ,1947;1961); and a discussion of definitions would raise issues more appropriately dealt with in other contexts in the thesis. Two definitions, however, illustrating the above discussion are mentioned. The first is perhaps more generally used to describe C.H.E.:

(1) McKenzie established as the aim of human ecology "to discover the principles and factors involved in the changing patterns of spatial arrangement of population and institutions, resulting from the interplay of living things in a continuously changing culture." The reference to spatial patterns is derived from a geographic reference. This definition is quoted by Reissman (1964:93-94).

(2) Park (1936;1952:158): "Human ecology is, fundamentally, an attempt to investigate the processes by which the biotic balance and the social equilibrium (1) are maintained once they are achieved and (2) the processes by which, when the biotic balance and the social equilibrium are disturbed, the transition is made from one relatively stable order to another." The explicit reference to the biotic factor is to be noted here. Implicit also is a reference to competition as a basic social process and thereby a reference to classical economics.

f) OTHER ASSUMPTIONS.

Other shared assumptions are derived from what we have termed loosely as Darwinism - the belief in natural laws as being of crucial explanatory significance, and the belief of their discoverability through empirical observation, a belief also in applying the methods and approach of the physical sciences in the social sciences (cf. Park and Burgess 1921, 1924; 1969/1970,Chapter 1). These assumptions are discussed in more detail in the following chapters.

It almost goes without saying that despite the interest in ecology the writers were primarily sociologists. Park (1926;1952:165) observed: "Human ecology, as the sociologists would like to use the term, is, however, not identical with geography, nor even with human geography. It is not man, but the community, not man's relation to the earth which he inhabits, but his relations to other men, that concerns us most."

g) A DUAL COMMITMENT.

Here then, we have a dual commitment, to ecology and to sociology. Man, as Hollingshead (1947;1961:109) points out occupies a "unique position...in the realm of living things: to wit, his place in nature as an animal and his role in societies as a possessor of culture... man, the animal, is inextricably tied in to the web of life along with all other creatures. Unlike them, though, he is connected with the nonorganic system of his socio-cultural heritage." The dilemma the C.H.E.s faced is this: He had to decide the extent to which human society is subject to the same principles that guide organization in plants and animals. It is this dilemma, and the solution to it proposed by the C.H.E.s that gives rise to the issues discussed.

D: A BRIEF INTRODUCTION TO THE BACKGROUND IN WHICH CLASSICAL HUMAN ECOLOGY EMERGED, FLOURISHED AND DECLINED.

While it will be of some interest in the last chapter to compare the motives and tactics of Modern and Classical ecologists, this section serves to introduce a number of important features which characterize the Classical school.

a) THE QUICK RISE TO FAME.

In 1921 Park and Burgess published their only major work, Introduction to the Science of Sociology; it was an "almost instantaneous" success (Janowitz, 1969/1970:xiv), and became the leading textbook for the next two decades. It is generally recognized that the authors exerted a longlasting and deep influence on American sociology.

Somehow Park and Burgess created a rare "atmosphere actively promoting first-hand research into various aspects of the city." For many ecological theory "was a sort of injunction: Go ye forth and gather facts" (Martindale in Weber, 1958:23,30). Burgess (1967:8) writing towards the end of his career and looking back on earlier days, records how "At one time we had so many research projects in the department, it was said that every graduate student had a project. That wasn't literally true, but there was enough truth in it to warrant the statement." This heavy emphasis on empirical studies in the earlier decades when sociology was seeking recognition in the academic community as an autonomous science, set the pattern for the future. (cf. Turner 1967:ix).

The point here is that within sociology at least, the ecological model or theory generated considerable enthusiasm, for it provided students with a ready framework within which their own interests could be studied and interwoven with others. Coser (1971:382) paints a picture of many students in consultation with Park in the development of realistic research problems: "His work thus evolved almost literally through an interplay between him and an audience of eager students."(1)

b) PRAGMATISM AND THE OBJECTIVE SCIENTIST.

The major driving force in the Chicago school was Park. Burgess (1967:3) describes his experience as a fellow worker with Park: "He lived and slept research. I never knew when I would get home for dinner." Park belonged to the general pragmatic movement of ideas (Coser, 1971:373) which led him to focus on the pathologies of society (cf. Turner,1967:xvi). It should be remembered that Park had been a newspaper man for a great number of years before he became a sociologist. This experience had taught him to ask of a situation, "What is the Big News"? The journalism in which he had participated had among other things concentrated on exposés of corruption in municipal affairs, but he learned that "while newspaper publicity aroused a great deal of interest and stirred the emotions of the public, it did not lead to constructive action."(Burgess,1967:3). Park's disillusionment in

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(1) See Coser (1971:372) for an "imposing roster" of presently well known sociologists who are among Park's students. (cf. Martindale in Weber, 1958:23).

in newspapers as an effective method of reforming the city and putting right the glaring wrongs led to his commitment to sociology, and to the discovering of the basic underlying "forces" or "processes" which moved the enormously complex city.

Reacting against moralists he became convinced that an objective approach was required. The notion though, that, because of a heavy commitment to empiricism Chicago sociology is devoid of value concerns is erroneous (cf. Janowitz,1969/70:xviii).

c) ACADEMIC RESPECTABILITY AND THEORY.

The Chicago sociologists were acutely aware that they had to offer more than the mere trappings of science (Coser,1971:333); they needed a recognized body of theory. It was to this end that in 1918 Park borrowed some concepts from plant ecology and turned them into a unified explanation.(1) The result was an imposing book of over 1000 pages which became known as the "green bible." The book was enthusiastically described by E.A. Ross (cf. Janowitz,1969/70:xv) as "the last word of perfection." While this attitude may not have been universal, the book came to be seen as representative of the conceptual apparatus used in the Chicago school. It was a book that was designed for the classroom - Janowitz (1969/70:xii) is no doubt accurate when he tells us that "for twenty years... [it] was the leading textbook in the discipline," though he possibly exaggerates when he says graduate students "throughout the country [used it] as they prepared for their doctoral examinations and research endeavours." The very success of American sociology today owes something to the recognition Park earned in the academic world in developing a set of concepts which allowed for systematic classification and analysis of social data.(2)

d) RESEARCH AND CORPORATE ACTION.

The City of Chicago held a great fascination for the Chicago sociologists. It was a city, which in the two decades in which the Human Ecologists flourished, grew by more than one half million per decade - and had

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(1) See Footnote 28 in Martindale,1958:22.

(2) See Coser (1971:357) for a biography of Park, and for a summary of Park's theoretical contribution.

done so, at that rate, for the previous five decades. In 1860 the population was 112,172; by 1930 it was 3,376,438. It was no wonder the attention of the sociologists was caught. Burgess (1967:4-5) has described this period in some detail and it is worth reproducing his description at length:

> Chicago had been flooded with wave after wave of immigrants from Europe. The number of new arrivals had been especially heavy from 1890 to 1910. World War I had caused this flow to cease, but immediately after the war there was great speculation that it would be renewed - with perhaps even greater activity. By the time our studies began, the various ethnic neighbourhoods were well established, with each ethnic group having its own churches, schools, newspapers, restaurants, stores, social clubs, politicians, and welfare stations. By this time, too, public sentiment had crystallized into rather firm prejudice and discrimination against the new arrivals from Eastern and Southern Europe. Anti-Jewish, anti-Polish, anti-Italian, and anti-Czech feelings were especially strong in particular neighbourhoods. In those days, even Germans, Irish, and Swedes were regarded by the old-line English families as being socially inferior...The public prejudice and desire for segregation of the foreign stock made it possible to maintain a housing shortage for these groups despite rapid building in other parts of the city...The children of immigrants, standing between two cultures, were loyal neither to their parents nor to America...They had formed street corner groups that were acting in open defiance of both the desires of their parents and the social rules of the community at large. The city administration was commonly regarded as being corrupt, and politicians were manipulating the ethnic neighborhoods for their own advantage. Many families were desperately poor; widows struggling to bring up a brood of children were very common in those days, since mortality rates were high and death of the breadwinner during the prime of life was not uncommon. There was much need for charitable social service in the ethnic neighborhoods.

Two titles of Park's essays express his attitude to Chicago and to sociology: "The City as a Natural Phenomenon" and "The City as a Social Laboratory." It seemed to Park (1929;1952:81) that Chicago constituted a "social laboratory" in which human nature was magnified and therefore more easily studied: "the city, with its natural regions, becomes a 'frame of reference,' i.e., a device for controlling our observations of social conditions in their relation to human behavior." It was only within this framework that a rapidly changing city could be grasped scientifically. Mostly the forces which were supposed to move the individuals and institutions, conceived discretely, were seen as somewhat beyond the control of man. In any event the way in

which problems like juvenile delinquency were to be controlled lay in the extent to which man could understand these forces. One of the main insights insisted on by the Classical Human Ecologists (Park, 1929;1952:197) lay in the notion of tackling problems within the framework of the natural areas.

The Chicago school had a great deal of success in convincing city authorities such as the Health Department of Chicago to invest great sums of money in researching the natural areas. Planners too, apart from sharing a liking for concepts such as neighbourhood, zones, natural areas, were happy to go along with the assumption that the city had a characteristic organization composed of natural areas, each area having its own distinctive institutions, groups, personalities, etc.(1)

Their success was complete when in the 1930's the City Council decided to adopt this scheme as a basis for regular census data gathering. Under the directorship of Chicago sociologists the now Chicago Community Inventory publishes the Local Community Fact Book of Chicago every decade when censuses are made. There are seventy-five community areas of Chicago and information useful to municipal business and welfare is to be discovered therein. It is no idle boast when Burgess (1967:12) can say after a lifetime's work: "At this university there is perhaps the greatest collection of basic social data of any city in the world" - and yet there is a gap which as the present Professor Donald Bogue of the Chicago Department of Sociology (1967:14), acknowledges: "A major gap in urban research had persisted for some decades at the university in the urban studies research program. This was lack of a facility for carrying out systematic research on more distinctively sociological and social psychological aspects of urban life." This "lack of facility" is of course a direct result of the ecological bias of the founders. Undoubtedly success in the earlier decades with the community leaders and the planners reinforced the drive in the direction of understanding and grasping "ecological principles" - and this is without a doubt a major source of its present continuing attraction.

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(1) See Burgess in Burgess and Bogue, 1964;1967:7-8.

e) THE DECADE OF CRITICISM AND DISILLUSIONMENT.

The authors of the major criticisms have already been identified (see footnote 1,page 3). What is attempted here is a brief indication of the depth of that disillusionment. Bell and Newby (1971:94) note quite calmly that "the approach of pursuing ecological studies of the community in conjunction with detailed fieldwork seemed to stop after the early 1930's."

This is to pass very lightly over the "devastating" blows which had "mounted up" against what has become known as Classical Human Ecology. Perhaps it was the suddenness of the collapse that caused the extreme frustration that can be discerned in Gettys' (1940;1961) article. The point to note is that it was only towards the end that Park and his colleagues had to face fierce criticism - it was evident that in the academic circles of the 20's and 30's Darwin's "heavy hand" offered considerable protection.

The end tale is told very briefly in two apt sentences abstracted from Reissman (1964:95,113):

> Ecology did not fail in this earliest period when it used biological principles as a stimulus for methodological purposes, however, but it failed later, for complex and uniquely sociological reasons.

And reviewing the movement as a whole:

> The enthusiasm born...of condensing urban complexity to a wondrously simple and orderly set of laws had disappeared, to be replaced by the inevitable cynicism that follows disappointment.

CHAPTER TWO

THE NATURAL AREA CONCEPT

A) Introduction.
B) The Urban Community Concept.
C) The Zonal Concept.
D) The Natural Area Concept.
E) Reviewing the "Strong".Points.
F) Issues and Conclusion.

A: INTRODUCTION

a) TWO PRELIMINARY REMARKS.

First, it is important to clear up a confusion which may otherwise arise. In these first two sections headed The Urban Community Concept, and The Zonal Concept, the term "natural area" is given its original meaning in which the term indicates no particular group or area. At this stage the term is used in a vague way. So far as Park was concerned his initial usage indicates a geographic type concept in which spatial elements and physiological elements were important. Later the term came to have an ecological or biological reference. As it eventually came to be used, though, it referred to a smaller area of cultural or social homogeneity within the city.

Second, it should be noted that no official definition of this important term was given by Park. The definition identified below is therefore my own interpretation of how Park saw the natural area. A full definition should not be sought - rather the characteristics or elements identified here are considered to be essential to the definition with which Park and his colleagues worked. This is not to say that other characteristics may not be identified - Nottridge's (1972:29-30) reconstruction should be consulted as another example,only that those identified here are: (a) essential; (b) given (a) additional characteristics would not alter the logic with which it was employed.

b) THE MATHEMATICAL BASIS OF THE NATURAL AREA CONCEPT.

There is little doubt that Park shared in the exciting possibilities of mathematical representation: "mathematics...has been the model of exactness to which the other sciences have invariably striven to attain" (1929;1952:178). Since Descartes, in his quest to establish the qualities of matter, chose as his criterion those conceptions which alone could be described as clear and distinct (like the truths of geometry), the mathematical concept has appealed to scientists. For Descartes the only ideas about matter which could be clearly and distinctly conceived were extension and motion. As other assumptions involved no such self-evident qualities no knowledge could be derived from them. Given these premises, then, we have in the concepts matter (extension) and motion: "all the data necessary for explaining the entire world in strictly mathematical terms."(Rogers,1929,1935:249-250). Descartes' example of the mountain and the valley is instructive. He states: "It appears that existence can no more be separated from the essence of God, than the idea of a mountain from that of a valley, or the equality of its three angles to two right angles from the essence of a rectilineal triangle."(Quoted by Versveld,1954:24).

In short, there are two steps in the argument above:
(1) Intuitive, whereby the world of things is grasped by the clear and distinct ideas, matter and motion;
(2) Deductive, whereby the concepts are related to one another in an invariable and ordered manner so that the one always implies the other just as a mountain implies a valley.

Park's argument with regard to the nature of the natural area and the urban community is accomplished in like fashion. First, the intuitive step, by which the clear and distinct idea - in this case the natural area is grasped. On the first page of the 1915 "bench mark" essay we have the following sentence:

> There are forces at work within the limits of the urban community - within the limits of any natural area of human habitation, in fact - which tend to bring about an orderly and typical grouping of its population and institutions. (1915;1925:1).

Asserted here is an identity between the urban community and the natural habitat (or area). In subsequent essays Park (1929;1952:181) claims that "Every community has a location" and that, at the very least "the community will always have a center and a circumference" (1925; 1952:66). Second, by the deductive step, by which it is argued

that every natural area because it has a location must also have a circumference; or because it has limits must contain within these limits natural forces operative therein; or because there are natural forces contained within limits, the limits themselves are shaped by the natural forces; etc.

c) A "WORKING" DEFINITION OF THE NATURAL AREA CONCEPT.

Without pursuing the matter any further it is assumed that the two essential elements constituting the natural area concept, and the urban community concept with which it is identified, are as follows:

(1) The most important characteristic of the natural area is its limits or boundaries.

(2) Within these limits "forces" are said to be operating in such a way that the constituent parts or elements are orderly and typically grouped.

d) THE NATURAL AREA CONCEPT AS A BASIS FOR THREE KEY C.H.E. CONCEPTS.

These are three concepts in which this "logic" is elaborated. They are regarded therefore as having equal logical status. They stand out as beacons in the writings of the C.H.E.s - they are:

(1) The Urban Community Concept.

(2) The Zonal Concept.

(3) The Natural Area Concept (cf. section A:a) above).

What will be said to apply in one case can be transferred with little problem to the other two cases. In the discussion that follows it has been convenient to single out different concepts for making certain points. This convenience arises out of the nature of the original material, and the quest for brevity.

B: THE URBAN COMMUNITY CONCEPT.

a) SUMMARY AND DIRECTION OF FURTHER INQUIRY.

As we have seen Park identified the natural area concept - a concept similar in character to Descartes' concepts of matter and motion - with the urban community. The terms "city," "urban community" or even "community" are used indiscriminently in identifying this concept. And while Park was not always consistent in his usage (Alihan,1938:13), it was a concept he employed throughout his leadership of the Classical Human Ecologists history. The question is not whether such a concept is legitimate - it is. It represents some reality. What we are interested in is: the manner in which it is held to be real; the adequacy with which such a concept can be said to represent the city; the degree of consensus among those who use the concept.

b) THE MANNER IN WHICH THE LIMITS OF THE URBAN COMMUNITY ARE SAID TO BE REAL.

A convenient place to begin is with Sjoberg (1965:162). He criticized the Classical Human Ecologists in general for their failure "to recognize that the city is shaped along certain lines by the broader, embracing society...much of its ecological and social structure is determined by social forces external to it." (Cf. Janowitz in Preface to Park and Burgess,1969/1970:xvii). This is an important criticism for the overall impression one gains from Park's writings is that he thought of the city as a fairly compact entity. Implied in his oft repeated notion of the city as a "social laboratory" (1929) is the idea that the city could be contained in such a thing as a laboratory. Of course Park never intended this extension to the metaphor. However, he did say (1936;1952:137) that "The city is the microcosm in which is reflected, often in advance of their actual appearance, changes impending in the macrocosm," and it was with cities especially that he was concerned - particularly Chicago.

While this is an important criticism, it is, I believe, one which Park was not totally unaware of, for he too maintained, on more than one occasion, that in the modern world "there are no longer any communities wholly detached or isolated" (1925;1952:66; 1936;1952). This statement is followed up by the following: "Within the limits

of any community the communal institutions - economic, political, and cultural - will tend to assume a more or less clearly defined and characteristic distribution. For example, the community will always have a center and a circumference, defining the position of each single community to every other."(My emphasis). It is not wholly explicit that the circumference is defined not only by internal forces operating within a given community but also by the relations between communities, but enough is given to allow us to see that in fact Park would have had little difficulty with this criticism of Sjoberg's.

This discussion serves to highlight the importance to which Park attached to "limits" and gives some idea of the extent to which his ideas of the city were influenced by the concept of the natural area.

The discussion is taken a step further by examining other ways in which Park used the key feature "limits." Two passages are quoted:

> The city itself has been identified with an administrative area, the municipality; but the city, with which we are here concerned, is not a formal and administrative entity. It is rather a product of natural forces, extending its own boundaries more or less independently of the limits imposed upon it for political and administrative purposes. This has become to such an extent a recognized fact that in any thorough-going study of the city, either as an economic or a social unit, it has been found necessary to take account of natural, rather than official, city boundaries. (1925;1952:167)

Speaking of the city as a natural phenomenon Park (1939;1952:118) says:

> Conceived in this way the limits of the urban community are not likely to be identified with the city as an administrative unit, but rather with the metropolitan region, the boundaries of which are not arbitrarily fixed but coextensive with the area within which the city, as a natural phenomenon, actually functions or, perhaps, with the area within which it excercises a dominant economic and a somewhat less obvious cultural influence.

A number of assertions are made in these two passages and can be listed as follows:

1. Unlike the formal, administrative and political boundaries the natural boundaries are extended "more or less independently." Park is more explicit about this in another context, e.g. speaking of the natural areas of the city, Park (1929;1952:196) says, "They are 'natural' because they are not planned, and because the order that they display is not the result of design, but rather of manifestation

of tendencies inherent in the urban situation." (See also Zorbaugh, 1926 in Theodorson,1961).

2. The formal administrative boundaries fixed by officialdom are "arbitrary." The term "formal" also carries this connotation.

3. For study purposes "as an economic or social unit" the natural boundaries are to be chosen rather than the administrative ones.

4. Natural boundaries can be measured by taking readings on economic and cultural factors which can be described as "dominant."

What we have here is a dispute between the appropriateness of one set of boundaries weighed against another. Let it be said right in the beginning that had Park maintained assertion 3 and left it at that, allowing the results of the various premises to answer for themselves in terms of insight gained, usefulness, etc., there would be no quarrel. However, he was not content to let the matter rest there and in the other assertions opens himself to the fallacy of reification. In the first assertion he asserts that the natural boundaries have an independence not found in the formal boundaries. The natural boundaries are more real, and exhibit more accurately the underlying forces of which people are compelled to take note - they would seem to be "out there" in a manner in which the formal boundaries are not. The nub of the matter is that he implies that the formal and political barriers are "artificial" without stating the criteria for either naturalness or artificiality. Gettys (1940; 1961:102) in commenting upon the C.H.E.s usage of "natural" appeals for the right of an experimental phenomenon as being "worthy of scientific investigation in its own right." The arbitrary assigning of naturalness to some things as flora and fauna and not to other things such as persons and attitudes and political barriers however formally or informally maintained, is to introduce into the sciences - and into this particular context a fallacious bifurcation.

We are presented here with a strange paradox. On the one hand there are the designed actions of men who seriously set formal and political boundaries which are "arbitrary" or "artificial." On the other hand

there are the natural forces which shape natural boundaries and compel men to pay attention to them, though some apparently do not.

The question is whether in fact the paradox holds or not. We must examine the basis on which Park could claim a greater reality for the natural boundaries.

c) BASES ON WHICH THE ADEQUACY OF THE CONCEPT IS TESTED.

The two passages and the derived points continue to be relevant here. We pick-up the assertion that the natural boundaries are "more or less" independent of the limits imposed upon it for political or administrative purposes. The question is on what basis is reality attributed to the natural area.

There is at least one occasion (1929;1952:182) when the reality of the natural areas, and as a matter of course this would include the boundaries as well, was justified on grounds of its "visibility": "... the fact that the community is a visible object. One can point it out, define its territorial limits." This, as Park puts it, is "one reason why sociological research may very properly begin with the community." Certainly the visibility of the city cannot be gain said. Gist and Fava (1964:95) tell us that "The high visibility both of the city and of the diversity within it makes it hardly surprising that one of the earliest and most widely-used approaches to understanding the city has been in terms of the interplay between physical and social conditions." Reissman's comment (1964:98-99) is even more pertinent: "The city evidently met the boundary requirement exceptionally well, which was, perhaps, why Park believed that an ecological study of the city held forth such promise for sociology." Reissman goes on to remind us that the physical and social limits of the city were more pronounced in his day than in our own. This is not denied, but it is one thing to claim that one's concepts have empirical backing, it is quite another to assume that on these grounds alone, one's own concept has more reality than another. Could not the political and formal boundaries, at least in some cases, be equally well attested on these grounds, say in the case of a river or a mountain range?

Again, if it is to economic and cultural dominance that Park appeals,

how are these excluded from the formal and political boundaries? Here it could be easily pointed out that the political and official boundaries could also be seen as a manifestation of the said internal tendencies. On what grounds does Park exclude the political decisions from these inherent tendencies - we are not told.

The point is not that Park's concepts do not have an empirical referent - but whether on this basis it is sufficient to claim so much for one's concept. There would seem to be, possibly, some hesitancy in Park's "one reason" (cf. Reissman, where the more qualified word "perhaps" is introduced) for making this the basis for his claims. And yet if it is not on empirical grounds that Park derives his certainty - and it is a strong certainty - from what source is it derived?

d) THE DEGREE OF CONSENSUS.

Here we return to the point from which we started - to the notion of Descartes' clear and distinct ideas, to the concept of the natural area as an example of this - and therefore to the two steps of intuition and deduction, upon which its reality is founded. The point that needs emphasising is that the certainty with which Park asserted the reality of the urban community concept was one and the same as the certainty with which he intuited the features of the natural area concept. That others agreed with this intuition meant a greater confidence. (For further discussion see page 31 of this chapter).

C: THE ZONAL CONCEPT

a) THE POSITION SO FAR.

What is clear so far is that the fallacy of reification was committed when visibility and naturalness was attributed to one set of concepts (Park's) but not to others (i.e. the official administrative boundaries) while offering no explanation for doing so. Also the certainty with which Park claimed reality (or a greater reality) for his own concepts lay not entirely on his claim to their empirical veracity. The degree of consensus he and his colleagues shared with regard to the mathematical assumptions upon which the natural area concept was based, as well as the deductive type of logic which proceeded from these assumptions, is of crucial importance in accounting for the confidence which Park had in his concept of the natural area - and with its identification with the city. However, the focus upon natural boundaries (shaped as they were by natural forces operative within the said natural boundaries) was not confined to the city. As they were applied to other concepts of smaller scale the nature of their reality must be further elaborated.

b) CONTROVERSY OVER THE ZONAL CONCEPT AS A MATHEMATICAL OBJECT.

A consideration of the implications of these assumptions extended to the Zonal concept by Ernest Burgess (1924,1925) in his famous article, The Growth of the City : an Introduction to a Research Project, can bring us nearer towards gaining clarification in this matter. A good place to start though is with a quotation by Park (1929;1952:182) referred to earlier, but this time we conclude the sentence and add another: "A more practical reason why sociological research begins with the community is the fact that the community is a visible object. One can point it out, define its territorial limits, and plot its constituent elements, its population, and its institutions on maps. Its characteristics are susceptible to statistical treatment." The excitement of being able to plot objects of observation on maps became something of a fetish (cf. Weber,1958:29). The point is that in using a map the Chicago sociologists were implicitly claiming something important about their data. Again this leads us back to the Cartesian notion of clear and distinct ideas. Burgess in fact describes the Zonal Concept as an "ideal" and as such could be expressed in an amazingly simple "chart." Some confusion and misleading controversy

arose as to what was claimed and what was not claimed in the "zonal hypothesis" as it frequently is termed. Much of the controversy is focused on the basic element, the circle. The circle drawn with a compass is a representation of a mathematical concept. Maurice Davie (1938;1961:92) was the first to voice a strong criticism of the zonal hypothesis. After discussing a number of the Chicago monographs in some detail, and after a painstaking study of his own in which he concluded that the Burgess hypothesis "clearly does not apply to New Haven," he maintained that both the studies of the Chicago sociologists and his own (New Haven) demonstrated a number of "natural areas" (so defined by their homogeneity) which did not form themselves into concentric circular zones. Burgess had anticipated this type of criticism right from the start for he had pointed out in the original document that the chart was an ideal construction. Not only was it not to be expected that the chart would perfectly fit every city - but it was carefully noted that Chicago itself, which was heavily used for illustration purposes, did not fit the chart due to a number of factors among which was for instance a lake front, and a river. It is obvious, as Quinn (1950;133) points out that Burgess' hypothesis does not depend on strict linear distance in the delimitation of the formal research zones. In fact, had a time-cost criterion been employed rather than lineal distance, the essentials of the circular pattern could be retained. What Quinn is saying on Burgess' behalf is this - the "hypothesis" does not fall to the ground on the criterion of perfect circularity. The fact that a compass was used was incidental - it was an instrument of convenience. Given a more sophisticated instrument, lines would still be drawn. True, they would not be perfectly circular - in this Davie's criticism is aknowledged - but, nevertheless, they would still be drawn. The representation by chart would not be challenged. Circularity might not be a characteristic of zones, but lines would do equally well, if not better; for lines are still representative of mathematical concepts. The clear and distinct notion of the zonal boundary is in essence not affected. If one looks for a definition of the zonal concept the specific elements which seem to constitute it are, in the first place boundaries and, in the second place the tendency due to forces within the zone, to overflow. In this latter idea an advance upon the city concept was made. So far we seem to have come no further than the position we arrived at in the last section. There is, however, one advance

which had great appeal. Given the notion that zones could be delimited by mathematical objects - for convenience by circles - the next step was to assume that they could serve as an index for measuring the forces of movement within the boundaries; or for that matter in their overflowing thereof. Once one has a sharply delineated cosmos - (derived as they are from axiomatic clear and distinct type of ideas) then other features deduced from or dependent upon it will automatically have an equivalent specificity, and consequently, measurability.

So far we know that there are limits or boundaries, and within them, or overflowing them, there are forces. These two features are related in such a way that they may be mathematically represented. They have equal specificity. For the moment we focus our attention more specifically on the forces - although these two features are so interdependent that the one always presupposes the other.

c) THERE ARE TWO QUESTIONS:

(i) What is measured? Burgess is careful to distinguish between what he calls routine movements and mobility. Routine movements are unchanging motions, whereas"mobility"are movements which are indicative of more significant changes. The latter are measured by a number of items. Most important, it would seem, are land values for they provide "one of the most sensitive indexes of mobility." Others mentioned are of a more complex nature. Mention is made of numbers of rides in vehicles of different kinds per given time period, and numbers of telephones. More importance, however, is attached to the number of telephone calls made. These items are significant only where a higher ratio obtains than would be indicated by a calculation based upon mere population increase.

(ii) What interpretation or inference is made from these measurements? On the basis of readings based on such factors we are told a number of items of information can be gained. Mentioned specifically are the degree of attachment of the person to his family or group; a person's wishes; and whether the persons acts integrally with his whole personality, or segmentally. This latter is another way of saying pathologically. In this context we are told the specific criterion upon which the inference is made; it is "where the mobility is greatest" that one discovers persons who are demoralized, delinquent, and promiscuous. In such areas persons who divorce their wives, commit

crimes, abandon their infants, etc. are to be found. In short, both the number and the kind of contacts a person may have, as well as the state of his or her moral life may be inferred.

d) FOUR MORE QUESTIONS:

Not surprisingly, there are some queries as to the procedure and the validity of the argument: (i) If a given area is noted as having rapid movements, or mobility, does this mean that all the persons living in that area are to be regarded as so characterized? Do all participate in "vice"? (ii) Is there a one-for-one correlation between movement and, say, degree of pathology in a person? (iii) Are all features or events to be so accounted for or are there some features or events which are not to be accounted for in terms of the movement of forces? (iv) What degree of generality can be inferred from the evidence?

The questions are discussed in order:

(i) The question of homogeneity. A convenient spokesman for the first question is König. He draws attention first of all to the distressing looseness with which the C.H.E.s used terms. "Community," "zones," "quarter," "natural area" and "neighbourhood" it would seem are used as equivalent words meaning more or less the same concept (König,1968:61-62). In the following comment König's (1968:64) remarks are directed in this instance to the problems which arise in terms of zones or quarters; his comment is largely based on an original study of his own:

> In an investigation of Zurich, the first town quarter...was first of all divided up into 132 sub-districts averaging thirteen buildings each. As these districts were too small to produce useful results in any classification of the residential population, a second analysis combined them into "zones" each having a structure as uniform as possible. Naturally, these zones did not have the same homogeneous traits as the groups of buildings from which they were formed, but nevertheless their structure was surprisingly uniform. But precisely here there were such great deviations, both up and down, of certain statistical averages that they could no longer be explained by the usual statistical variations.

König's point is that apparent (visible) homogeneity of zones may be misleading. He maintains that as soon as a micro-analysis is undertaken house by house, street by street, block by block, then the statistically recorded homogeneity disappears. This criticism corresponds very closely to that of Davie's mentioned earlier. The main difference lies in the focus. Davie was concerned about the

"fit" with regard to the concentric zones and König is concerned with the assumed homogeneity of the "forces" within the specified area.

(ii) Is there a one-to-one correlation between movement and, say, degree of pathology in a person? There are really two problems of inference here - and both questions reflect choice of unit considered to be reflected in the measured features.

First, Burgess refers indifferently to persons, areas, and populations. This as we shall see is questionable. Alihan points out the problem by focusing on the manner in which a cut-off point for a given area or zone, supposed to be either homogeneous or at least distinguishable from other areas or zones, is made. She points out that in actual fact the readings presented in the Chicago monographs are all gradients.(1) For instance, some elements are more mobile than others, and it is the degree of mobility that is measured. Similarly land values too are gradients - they decrease in value from the centre to the periphery. But if the gradients, as the term implies, are continuous, then the zonal cut-off points could be drawn at any radius from the centre. It would be as logical to have twenty zones as five. (Cf. Gist and Fava,1964:112). In other words the zones established by Burgess are arbitrary or at any rate have an important element of subjectivity attached to them. The problem is that if such significant findings as those Burgess supposed could be "measured" are to be inferred, then at least there should be some discernible difference in quality reflected in the measurable elements. Where it is a matter of degree of mobility - or of land values we deal with elements of the same kind. Zones thus are not of different kinds: "The zone can have significance only if it marks a distinction of gradients or between gradients."(Alihan, 1938:225 - my emphasis). Besides this, there is the point that different criteria will show different gradients of phenomena within the urban area - no single system of composite zones will suffice for all purposes. (Cf. Quinn,1950:135).

If Alihan's criticism holds water, then the claim that Burgess can, on the basis of measuring external visible features of the urban population in gradients, discern between persons who act integrally with their whole personality and those who act segmentally is far-fetched - for such differences in action are, one imagines, not merely

(1) The concept of gradient refers to the regular rate of increase or decrease of a variable across a given distance (cf. Quinn,1950:275).

a matter of degree but a matter of difference in quality. At any rate where such a claim is made explicitness with regard to criteria upon which such a judgement is made is essential: degree in "mobility" would not seem to be a sufficient basis upon which such judgements could be made. This point is picked up again later on in another context. (See Chapter Three, Section B and C).

Second, the point is further clarified by Robinson (1950, Theodorson, 1961) who drew attention to the difference between individual correlations which are based upon persons as units, and ecological correlations which are made on the basis of groups of persons as a unit. Menzel (1950, cf. Theodorson, 1961), a commentator, illustrates the point made and is used here for convenience. Briefly, the point is that some correlations made in terms of a population or an area are meaningless when applied to persons. For instance, it would be erroneous on the basis of a population analysis in which there was a high correlation between number of arrests and number of divorces to argue that individuals, in that population, who were arrested were particularly prone to divorces. Nevertheless, though agreeing with Robinson that ecological and individual correlations should not be confused, Menzel maintains that ecological correlations still have a great value. He does not say what the value is. Another recent discussion in which Robinson's "ecological fallacy" is referred to is to be found in Bell and Newby (1971:32-35,99). In their opinion the practice of relating "community structure" to geographic and spatial variables while providing "a truly impressive amount of factual detail on Chicago" did "little else." The theoretical advances were "slight."

(iii) The question of a residual category. If there is some query about the process of arguing from ecological variables to persons the next question to ask is whether Burgess made any allowances for exceptions - phenomena which his hypothesis was not expected to account for. While, after mentioning a number of items which he claimed as elements "entering into" mobility, a global claim is made in the words, "All these factors may be expressed numerically" (1925:60), he does create what may be termed a residual category which as we have seen he used to beneficial effect: it effectively provided immunity from the criticism of lack of empirical corroboration (see p.25). Among

the items mentioned occur two which are non-physical: historical factors in the location of industry, and the relative degree of the resistence of communities to invasion. With the introduction of these factors in this residual capacity - i.e. operating, as it were, independently of the forces identified as significant in the hypothesis - it becomes evident that there are alternative explanations; also the attribution of primacy to one set of "independent variables" becomes a matter of subjective judgement. Firey's (1945,Theodorson,1961) article in fact is a strong argument for giving primacy to cultural factors. What he demonstrates in terms of the impact of symbol-sentiment upon land use in Boston as independent variables should, he says, not be regarded as "mere ecological 'sports'." Many other American cities present similar locational characteristics, and this means that a different order of concepts from those prevailing in ecology need to be used.

With this criticism we have pinpointed an issue which at a more implicit level provided the essential dynamic to the Classical Human Ecologists. Basically, and especially in Park's writings, we see how two commitments are juxtaposed. On the one hand the commitment to ecological concepts in providing an explanatory model or theory; and on the other a commitment to sociology, and therefore to what is unique about man - his ability to create a culture with the aid of which he could act voluntarily. While they were not wholly consistent, and argued on occasion for the primacy of the cultural factor, the bulk of their writings exhibit a marked preference for the ecological factors as primary. The manner in which these two commitments were balanced is worked out with some delicacy, and we will be considering this further when we deal with the Natural Area concept. A more direct treatment of dichotomous concepts will be made in Chapter Four.

(iv) A question of generality. So far our questions and discussion follows more or less the Schnore (Hauser and Schnore,1965:355-356) summary of broad types of criticism of both newer and older issues with regard to the Burgess zonal hypothesis. The first three with which we have dealt so far were described as closely related, and have been treated here as such. The remaining issue is the question of generality.

Of concepts in sociology few have fared as well as the Zonal Concept of Ernest Burgess. Having been reproduced in many general textbooks (though of late the reproduction has been relegated to the more specialized textbooks), the five-zone diagram, complete with river cutting through the centre, has become not merely familiar - it has become a badge or symbol of the Classical school. Recently (Timms, 1971) it appeared in the attractive form of a cover design for a book. It would seem that the diagram itself carries some self-authentication, almost as though it had a life of its own.(1) The sheer success of this concept is impressive. But, it is asked, upon what is it based? If we examine the original document we see that Burgess says, "If this chart is applied to Chicago" (my emphasis) meaning that the idea is to use Chicago for purely illustrative purposes. Nevertheless the point does arise that while he puts forward a general theory it is to Chicago alone that he seems to appeal. Shortly after the publication of the article Zorbaugh suggested a restriction in the application of the concept to the modern American commercial and industrial city. This was later accepted by Burgess (1930) himself. (Quoted by Schnore in Hauser and Schnore, 1965:353).

Similarly, so far as the Classical Human Ecology monographs are concerned - those mentioned, for instance in the footnote below, Gettys (1940;1961:101) was of the opinion that "their values... are derived from concrete studies too narrowly confined to a single and somewhat unique area, namely, the large American city." Bell and

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(1) This was not surprising when one considers the use to which the concept has been put. Some of the earlier classics connected with the Classical school may be listed as follows: E.R. Mowrer's Family Disorganization, 1927; F.M. Thrasher's The Gang : A Study of 1313 Gangs in Chicago; 1927; C. Shaw's Delinquency Areas : A Study of the Geographic Distribution of School Truants, Juvenile Delinquents, and Adult Offenders in Chicago, 1929; W.C. Reckless's "The Distribution of Commercialized Vice in the City : A Sociological Analysis" Publications of the American Sociological Society, July, 1926; H.W. Zorbaugh's The Gold Coast and the City Slum, 1929; E.F. Frazier's The Negro Family in Chicago, 1932; R.E.L. Faris and H.W. Dunham's Mental Disorders in Urban Areas : An Ecological Study of Schizophrenia and Other Psychoses, 1939; etc. All these (Quinn, 1950:126) "accepted the hypothesis more-or-less uncritically and have used it as an aid in interpreting the spatial distributions of various types of human phenomena." These studies mark only a beginning. Schnore (Hauser and Schnore, 1965:356) tells us that "Even restricting attention to the American sociological literature, one can find an account of the 'ecology' of at least one city in every major region of the world."

Newby (1971:92) draw out the criticism, seen from an English vantage point: "This [unified approach] is both the schools greatest strength, for their data is wonderfully rich, and its greatest weakness for all their data is on one city at one time. Despite their historical investigations like many other American community studies they can be charged with 'localism', with having a curios local ethnocentricity notwithstanding the fact that they were the most cosmopolitan and worldly-wise of men." (For further detail see Quinn,1950:120-123).

What is of interest here, especially in the light of the previous discussion with regard to the "urban community" concept of Park, is that Burgess lived long enough to react to the criticism. He took care to point out that his concept had no claim to having a greater reality to that of competing concepts. In 1953, following the continued usage of the concentric zone hypothesis despite the criticism (though not without reference to qualifications such as those suggested by Homer and Hoyt, cf. Mann,1965,1968:95-96; Nottridge, 1972:31), Burgess (quoted by Schnore in Hauser and Schnore,1965:352) made a reply to his critics as follows: "At no time in advancing this ideal construct of the effect of radial growth have I denied the existence of other possible factors which might also be regarded as ideal constructs." The points made earlier (p.23) may be reproduced here. The question of its reality, and the causal relations presupposed in it (i.e. from an expansion from the city centre giving rise to a concentric zonal pattern of growth), derive not so much from the empirical evidence, as from the degree of consensus among sociologists as to its usefulness or suggestiveness on the one hand, and on the other from the nature of the concept itself based as it was upon the (mathematical) natural area concept originally championed by Park.

While Reissman (1964:105) regards the Burgess hypothesis as a "high point of ecological argument" it is argued here (see p.14) that an even higher point was reached in the natural area concept.

D: THE NATURAL AREA CONCEPT

a) ZORBAUGH'S CONTRIBUTION.

Burgess (1964:7) recently reviewing the history of the C.H.E.s tells us that one of their most important contributions lay in their assumption "that the city had a characteristic organization...composed of natural areas, each having a particular function in the whole economy and the life of the city, each area having its distinctive institutions, groups, and personalities." Barely two years had passed since the publication of Burgess' original paper before Zorbaugh proposed a major qualification. Describing the "generalized zones" as "gross" he suggested that in actual fact physical factors, some of which were mentioned by Burgess in what we suggested was a residual capacity, broke the city up into numerous smaller areas, which he termed "natural areas." (1926;1961:46)(1) Gathering support from historians (Ibid:47) who are regarded in general as being of the opinion that "state lines were not drawn with reference to natural groupings of population and natural geographic units" - an obvious harping back to Park's method of argument - he applies the same logic to the smaller administrative areas in the city, i.e. areas or "wards" used for convenience by education, police, and medical bodies. These he found were deficient in a number of respects. They were regarded as equals when in fact the underlying natural areas, not taken note of, showed differential adaptive capacity; furthermore wards cut right across natural areas and produced a stalemate in local voting patterns - consequently "the real issues...that make up the city rarely get into politics" (Ibid:48). The point is that no allowance was made for the existence of distinct and natural areas within the city, and the efforts of the community organizers who had set out to remedy the situation by substituting one administrative area for another - totally oblivious of the existence and significance of the natural areas - were doomed to failure. Rather than expecting that the neighbourliness of the Golden Age of the village should miraculously emerge within administrative areas they should have paid attention to the natural areas - it is these that constituted the "real" units of the city: "They can be accurately defined. Facts that have a position

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(1) See clarificatory note on p.

and can be plotted serve to characterize them" (Ibid:49). Zorbaugh built up to a magnificent conclusion. Pointing out the meaninglessness of the statistics based upon the administrative areas, he pointed to the "crying needs in planning for...significant statistics...based upon units that are actual factors in the process under examination." (Ibid).

Zorbaugh's plea and argumentation did not go unheeded. In 1929 Park (1929;1952:196-198) declared:

> The urban community turns out, upon closer scrutiny, to be a mosaic of minor communities, many of them strikingly different one from another, but all more or less typical...
> They are the products of forces that are constantly at work to effect an orderly distribution of populations and functions within the urban complex. They are "natural" because they are not planned, and...the order they display is not the result of design, but rather a manifestation of tendencies inherent in the urban situation...
> Now, the fact of primary importance here is that social statistics - births and deaths, marriage and divorce, suicide and crime - assume a new significance when they are collected and distributed in such ways as to characterize these natural areas...
> Perhaps, [says Park wistfully] not all but most facts that can be stated statistically once they have been plotted in this conceptual scheme, - this ecological frame of reference, - can be made the basis of general statements which may be eventually reduced to abstract formulae and scientific generalizations.

b) THE NATURAL AREAS AS A "FRAME OF REFERENCE".

Taken together then these natural areas were seen by the leaders of the C.H.E.s as constituting a "frame of reference" in which statistical facts would gain a new and more general significance. While there is no need here to repeat in detail the kinds of criticism which were made with regard to the assumptions, such as those with regard to city boundaries and the homogeneous composition of specified areas, there is some point in showing the degree of commitment which was given to this final conceptual formulation. Bell and Newby (1971:98) highlight this when they point out "Their [i.e. the C.H.E.s] concentration on 'natural areas' prevented them always from viewing the city as a whole. If they had stepped back a bit, as it were, it might have been possible for them to consider where those who were living in the rooming house district had come from and where they were moving to." This criticism would almost certainly have surprised the C.HE.s for their whole object was to understand the basic forces which moved

a discrete mass of individuals and institutions into the patterns they believed they could perceive. In short, because of their ecological commitment they took up a community perspective (cf. Janowitz,1969/70:xvii). Besides, arising out of the same commitment, with their concentration on "overflowing" and "expansion" and "invasion" the notion that they did not "consider where those...in the rooming house district had come from or where they were moving to" is, while not altogether unjust, perhaps misleading (see Zorbaugh,1926;1961:47-48).

Where the criticism would undoubtedly be fair is in the received and unquestioned treatment of the cultural factor. As in the case of Burgess' concept an important part depends upon the manner in which the boundaries are said to emerge. Zorbaugh (1926;1961:47) makes a token gesture when, after saying that "Land values, characterizing the various natural areas, tend to sift and sort the population," he adds, "Cultural factors also play a part in this segregation, creating repulsions and attractions." The point is that land values were seen to operate unconsciously and automatically like the robot which goes its "own way indifferent to the will of its creator."(Ibid:45). Cultural values "and all social attitudes" on the other hand, belong among those "subtler phases of city life" (Ibid:49) and may usefully be studied "within the area" - i.e. areas which are, as it were, ecologically "givens."

There is a more basic point to the Bell and Newby criticism however, and that is that so often the C.H.E.s spoke of individuals and institutions and yet their sociological or socio-psychological contribution is brought in through the back-door. Sirjamaki (1964:203) points out that "most" of the Chicago monographs in fact start off by locating certain groups using ecological principles, but then having done this, substitute a sociological analysis for an ecological one. He points out that an unintended consequence of these studies was that they demonstrated that the natural area concept was "hard to use in cities." While this explanation suggests a reason for the classical status accorded in sociological circles to many of these monographs, the importance and effect of one's starting point must be recognized. It not only determines what comes second, but in fact colours the rest of the material. Thus the real point to Bell and Newby's remark lies in the inflexibility of approach. The high degree of consensus and commitment to their formulations made an impression

on others. It would seem though that the City Council's acceptance of their definitions for multi-purpose planning had the effect of fossilizing the concepts, and taking away the individuality of approach needed in the study of sub-communities. At any rate when Hatt (1946;1961:108) says, "No obeisance need be made to the natural areas of a city" (author's emphasis) he is making a point against the reification of concepts, for to reiterate a point made earlier on, the fallacy of reification is committed where a concept, narrowly defined, is regarded as an exhaustive representation of an entity (the city) conceived in its broader sense. The point is that individuals must be allowed to "step back" and view the city continually afresh, using old concepts to be sure, but also deciding anew what the purposes of their individual studies are, and making alterations accordingly.

We are now in a position to build on a point made earlier. Alihan pointed out that the concentric zones were arbitrary in that, because they were based on gradients, there was no reason why there could not as easily be twenty, or any number for that matter, as the five specified by Burgess. What Hatt and Sirjamaki wish to stress with regard to the natural area concept, is that, in a similar fashion, the size of the natural area exists by virtue of the definition imposed on it by the investigator. Both the number and the size of natural areas as well as their location in the city varies with the scale chosen by the investigator (Sirjamaki,1964:204). And this in turn is dependent "entirely on the problem defined by the student"(Hatt,1946; 1961:107). Once this freedom of individual definition is taken away, once the student can no longer "step back" both from his own and other's concepts, the door is open to dogmatism, and objectivity is lost. Then the argument depends on prestige rather than upon criteria of scientific judgement. Such concepts have no great survival capacity in a university though, and König is right in his designation of it as the "questionable" natural area. Sirjamaki's (1964:203) remark forms a fitting conclusion: "By now ecologists have given up the concept of natural area."

c) ZORBAUGH'S CONTRIBUTION AGAIN.

In the light of the above discussion the question is not "Why was it necessary to develop the natural area framework"? but rather, "For whom was it necessary"? And, as it was Zorbaugh who championed the

natural area concept so soon after the Burgess hypothesis had been published, a clue, surely, will be found in the purposes of Zorbaugh. His monograph The Gold Coast and the City Slum, was published in 1929. The focus of the study is on two "communities" of contrast - the one marked by the highest residential land values, the other marked by the lowest. The Gold Coast was the lake side, and a few blocks away, behind, were "Little Italy" and "Little Sicily" - the slums. This interest can be traced back to the 1926 paper on which much of the discussion above was based - both the Gold Coast (p.48) and the Lower North Side (p.47) are sited as examples. Given this interest in smaller "communities" we have the key to the estimate of the Burgess zones as "gross." We have here an illustration of that freedom necessary for the advancement of science - the freedom to build on the conceptual advances of others, and to redefine their concepts if necessary for one's own particular purposes. No doubt in championing so strongly the cause of the natural area concept Zorbaugh did not mean to deny others the freedom he himself enjoyed.

There is a point implicit in Zorbaugh's choice of the natural area concept which needs teasing out. On what basis did he decide upon the smaller units? No doubt the land values are suggestive. And yet, having begun with a physical description of the locality, Zorbaugh turns to his impressions gained of cultural and social contrasts. It is suggested that it is this latter quality which gives his monograph its survival capacity. The fact that social and cultural groupings are (and were) intermingled with one another (Hatt,1946;1961; Sirjamaki, 1964:203; König,1968:62-63) is beside the point - for in this respect the contrasts chosen by Zorbaugh were at the same time extreme enough to be clearly definable, and yet compact enough for one researcher to handle on an impressionistic basis. Bell and Newby (1971:96) identify his method in the paragraphs which begin "As one walks..." and quote an instance as follows: "One has but to walk the streets of the Near North Side to sense the cultural isolation beneath these contrasts." One cannot escape the conclusion that Zorbaugh's prime interest lies here rather than in the land values - the point at which he started. It was these cultural and social factors and the contrasts he perceived that created the fascination. In order to draw contrasts the areas needed to be small so that he as researcher could walk the streets and

register impressions. It is suggested that "the human scale" factor played a large if not critical part in the development of the natural area framework as it was conceived by the Classical Human Ecologists.

E: REVIEWING THE "STRONG" POINTS

Park started in the very beginning by identifying the urban community or the city with the natural area concept. This made room for the development of the zonal and natural area concepts. It was the latter which were to have the greatest success - yet the very success enjoyed by the concepts created a stumbling block of no mean proportion.

Towards the end of his career Park (1952:118) wrote a paper (unpublished) criticizing a work of Thorndike's. This is one of the most interesting of Park's writings, for it not only contains the same kind of penetrating criticisms which were later directed at his own work, but it also tells us, by inference, what Park thought the strong points of Human Ecology were. A short resumé therefore of this paper serves as an overview or summary of the main points.

Thorndike (1939) compared 310 cities in the United States using various statistical readings. Based on the number of dentists, cigar stores, home ownerships, birthrate, etc. he developed a scale in which the general goodness or excellence of a city could be measured.

There are four major criticisms Park brings to bear on the study:

a) ARTIFICIALITY OF SCALE OF MEASUREMENT.

> The fundamental objection to this sort of procedure is, as it seems to me, that it necessitates the substitution of a frigid and artificial construction, a sort of logical artifact, like the economic man, for the actual living object in which we are interested. Such artificial constructions may, perhaps, serve the purposes of an administrative agency for whom the "goodness of life," and particularly collective life, has no mysteries. It cannot serve the purpose of a science that is not satisfied with a precision that is gained by definition, merely, or with a procedure that substitutes correlations and logical relations for real causes. (1952:125)

b) STATISTICAL INFERENCE MISLEADING.

> The manipulation of statistical data by which such scales are contrived and applied has always impressed me a good deal like parlor magic. One is frequently startled by the results but is mainly interested to discover by what sleight of hand the trick was turned. (1952:123-124)
> It is this that tends to give social studies based on statistics the character of a purely scholastic exercise in which the answers to all the questions are already implicit in the conceptions and assumptions with which the inquiry started. (1952:125)

c) LACK OF PRACTICAL APPLICATION.

> What does he tell us finally? Does he tell us now just how, in view of the conditions under which this unequal, unwholesome and, I suspect uneconomic, distributions of peoples and the goods of life took place, how we could, if at all, change the situation? No... (1952:127)

d) LACK OF UNIQUE INSIGHT.

> All that we seem to get out of all these ingenious statistics in which the author has contrived to put down with some show of precision, but not with any sort of completeness [is] what we already in a general way know. (1952:127)

We are now in a position to sum up on a basis of inference from above, what Park thought were the strong points of the concepts of Classical Human Ecology. First, he supposed that the concepts were,in some sense independent of their creators,real - or rather that they mediated reality in a way which other concepts did not. They in short, exposed real causes. Second, he valued the empirical basis of their work. He walked the streets as did Zorbaugh and the rest. Their approach was regarded as superior to a "purely scholastic" one. Third, because their work exposed the underlying forces, their concepts and statistics were policy producing. Reliable decisions could be based upon them - problems could be tackled and perhaps solved. Fourth, their concepts led to unexpected results and new inferences.

F: SUMMARY AND CONCLUSION

The above discussion forms the material from which a number of issues are identified. In defining the issues and referring in summary fashion to the above discussion, some additional comment is made.

1. SUBJECTIVISM.[1] See pages 19-23,30-31,36-38

Subjectivism, according to Theodorson and Theodorson (1970:424) is "the philosophic view that our knowledge of reality is determined entirely by our subjective experience or mind." While Park would undoubtedly repudiate that he stood for such a doctrine, seeing that he gave a high priority to an empirical method in the search for knowledge, the two points of view are not really separable. Concepts act as blinkers, and the natural area concept which focused Park's view upon the boundaries of, and the forces within, the city, meant that at important stages the broader society and its part in shaping the city was disregarded. Park was not wholly unaware of these forces, the fact therefore that on critical occasions he could disregard them entirely demonstrates the blinker effect of concepts. It is important to recognize the subjective element in cognition -

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(1) NOTE ON -ISM. According to The Oxford Dictionary of English Etymology, 1966 the Greek root is -ismos, forming nouns of action for verbs. A frequent use of -ismos was to express the sense of acting like or adopting the habits of a body of people, as Attikismos, which meant siding with Athenians, or Attic fashion or idiom...on this model the medieval Latin usage was derived e.g. paganismus.

There are four chief uses in English:
(1) To form a noun of action naming the process, the completed action or its results, e.g. criticism, nepotism, ostracism;
(2) with emphasis on conduct, habit, character, e.g. barbarism, despotism, heroism, etc.
(3) forming the name of a system of theory or practice, based on the name of its subject or object, or on the founders name, e.g. Arianism, Epicureanism positivism; and by extension to designations of doctrines or principles e.g. agnosticism, altruism, deism, hedonism, romantism, universalism, etc.
(4) forming a term denoting a trait or peculiarity as of language, e.g. Americanism, Gallicism, Hellenism, Solecism.

It would seem that these categories are not mutually exclusive. Of the sixteeen issues identified and discussed in this thesis the majority fall in (3), more particularly in the extension where the usage designates a doctrine or principle. There are three issues which possibly designate a behavioural trait (and therefore fall in (2) or (4) viz. semnotism, pessimism and dogmatism, however, these traits are so closely linked with the system of theory propounded that the drawing of lines of this nature seems unimportant.

concepts are chosen. As in the case of Park's city concept, so too in the cases of both the zonal and natural area concepts, an important element in their establishment was subjective judgement. In itself there is no problem about this. The problem was the lack of recognition of this element.

Theodorson and Theodorson (1970:424-425) tell us that "when a number of individuals agree that their separate subjective experiences coincide, then subjective experience becomes shared, culturally objective reality. Social agreement, of course, is not necessarily final truth or reality, but what is real is known to man only in terms of what other people agree is real. The objective is necessarily a truncation of the subjective experiences of many individuals, because it consists only of what a number of people share and can agree to be in common." As we have seen above the degree of consensus in which both the zonal concept and the natural area concept was held by the C.H.E.s was impressive.

2. REALISM AND REIFICATION. See pages 17-18,21-22,34-36.
According to Theodorson and Theodorson (1970:342) the "fallacy of reification" consists in "The error of regarding an abstraction as a real phenomenon. The source of the error lies in the fact that in analysis it is necessary to simplify the complex phenomena of the real world, and in developing analytic concepts certain aspects of a given phenomenon must be ignored in order to focus on other aspects. There may be a deliberate exaggeration of certain characteristics in order to formulate a useful conceptual model..."

Of course, deliberate exaggeration of certain characteristics of a given object or phenomenon, in order to come to some understanding of it, is part and parcel of all scientific thinking. It is by a process of selection and emphasis of certain considered significant characteristics - and a corresponding de-emphasis of others considered unimportant or of no significance - that scientific thinking must needs take place. Of critical importance is the degree of deliberateness and of self-consciousness. As pointed out in the first chapter with regard to Classical Human Ecology it would seem that that fierceness of the critical spirit "mounted up" only towards the end. Possibly

because of this the C.H.E.s offer a fruitful bed in which the fallacy of reification can be demonstrated.

If what I have said above is to be accepted then there is little fault with supposing, for the sake of argument, that a particular concept which indeed enables us to abstract significant features of a phenomenon, be regarded as real. Park (1929;1952:179) is surely speaking in a true scientific spirit when he says: "Every science more or less creates its own objects out of events which are a part of the common experience of mankind. The first task of every science is to convert events into things, the particular things it proposes to study." In as much as he succeeded in (a) formulating concepts by which certain components of a complex phenomenon (the city) could be identified; (b) convincing others of their usefulness and appropriateness, Park can be said to have both rightly reified his concepts and advanced the process of science - i.e. if "reified" here means the regarding of his concepts as having "reality."

While Park would undoubtedly repudiate the metaphysical doctrine of realism "that universals, or abstract concepts, have a real existence as entities" (Theodorson and Theodorson,1970:337) in favour of the opposing nominalist point of view, for his empiricism led him to view the city as consisting of particulars, the fact that he attributed a "naturalness" to his own concepts led him to claim that they had a real existence. Paul Hatt (1946;1961:107) sees this as a general problem in the works of Park, McKenzie, Hawley and Quinn: "These views of ecology seem to imply the existence of a real kind of data, or a real series of forces, which then produce real areas and other ecological phenomena. The conclusion suggested by analysis of the data in this paper, however, is that ecology consists in a way of looking at data without assuming any inherent qualities of those data." In that Park's concepts consist in "a way of looking at data" they can be said to rightly constitute a reality. The problem arises when other alternatives are automatically excluded or regarded as artificial.

3. DOGMATISM OR THE FOSSILIZATION OF CONCEPTS. See pages 35-36
This issue is closely related to the above, and the last sentence can be seen as constituting a definition of it. There seems to be some good reason though in separating the two - for Realism can be seen

as arising from axiomatic or self-evident presuppositions, whereas the fossilization of concepts, it is suggested, arose from their official recognition by public authorities, and the notion that the natural areas identified by the C.H.E.s could serve multi-purpose planning. The point to be made is that each subject for research needs to be treated on its own merits.

4. TRANSFERENCE FALLACY OR CONCEPT CONFUSION. See pages 17-18,22-23,26-27,34-36
A key word in Theodorson and Theodorson's definition of Reification (above) is the word "phenomenon" (which in Park's terms corresponds with "event"). It would appear that Theodorson and Theodorson are saying that only phenomena (or "events") are "real." This is questionable. However, fallacy would arise where characteristics belonging to a larger entity are transferred incorrectly to a smaller, abstracted, but no less real, portion. Softness rightly belongs to oranges and can be transferred without too much violation to segments, but not to pips. Perhaps reification, in this sense, is best described as a transference fallacy - i.e. a problem of identity. (Cf. Archibald,1970:4).

This problem is noted originally by Alihan (1938:13) who points out that when technical meanings are given to everyday terms, such as community or urban community, "it is not easy to divorce them from their usual significance." When Park extended the clear and distinct characteristics derived from the natural area concept to the urban community and regarded these as an adequate description of "the city," a confusion of concepts, or transference fallacy may be said to have taken place. Bell and Newby (see p.34) recommend that the scientist should be able to "step back" as it were from his concepts. This requires, of course, the prior commitment to doing so.

5. POSITIVISM. See pages 22-27
According to Theodorson and Theodorson (1970:306) positivism is the "philosophical position holding that knowledge can be derived only from sensory experience." Janowitz speculates that had Park and his colleagues been alive today they would have participated in the efforts of contemporary sociologists in creating new formulations in sociology, "But they would not have abandoned their commitment to concrete and

specific data." (Janowitz in Park and Burgess,1969/1970:xviii). There are two consequences of this commitment which are important here:

(a) Method. "The methods of the physical sciences are regarded as the only accurate means of obtaining knowledge, and therefore the social sciences should be limited to the use of these methods and modeled after the physical sciences" (Theodorson and Theodorson 1970: 306). Thus, the importance of demonstrating the importance in sociology of the scientists' tools. "Too many of the charts, maps, overlay maps, diagrams, and statistical rates and ratios were present for their own sake" (Martindale in Weber,1958:29). A commitment to a specific method can also lead to fallacy.

(b) This self-conscious attempt to gain recognition for sociology as a science (Park and Burgess,1921;1969/70:Chapter 1) answered another need, and that was to think about social problems and the city in objective and non-moralist terms. Park felt that the "arm-chair moralists" and "intellectuals" contributed very little to solving the problems. However, there was a pragmatist bias to Park's writings which while not self-consciously asserted (cf. Alihan,1938:4-6; Coser,1971:373), was nevertheless strongly present in all his writings. "Park was not free from community being used as normative prescription for he clearly cherished a vision of a developed science of the community which could chart patterns of change so that men might finally fashion their social environments to conform more closely with their ideals" (Bell and Newby,1971:94). Theodorson and Theodorson (1970:310) tell us that pragmatism is the doctrine "in which the empirically ascertainable consequences implied by an idea or statement are held to constitute the meaning of the statement and (in some forms of pragmatism) also to be the criterion for the truth of the statement." The truth of the matter was that Park was substituting one set of value judgements (anti-urbanist) with another in which utility was regarded as the chief criterion of value.

The problem is not that these values should be held by a sociologist, but that they should be presented under the guise of empiricism (or positivism)

6. THE "ECOLOGICAL FALLACY" See pages 28-29.

Robinson has coined the term "ecological fallacy," which arises out of the demand to give to statistical measurements some object which corresponds to the reading. Two fallacies were identified. First, the attribution of homogeneity to an area which looked at more closely turns out in fact not to have the supposed homogeneity. Second, the supposition that qualitative inference can be based on quantitative data; or the notion that statistical readings based on groups as units can be taken as giving accurate information about individuals.

7. LOCALISM OR GENERALITY. See pages 30-32

The problem here concerns the inductive method, which is "the process of reasoning from individual instances to general principles" (Theodorson and Theodorson, 1970:199). The problem is that the C.H.E.s concentrated their attention on only one city, Chicago - yet they claimed a generality for their concepts. While the empirical base was weak, the degree of consensus was strong. Subsequently other empirical studies using the same concepts, more or less, have been used in examining many other cities. The point was made that provided no exclusive claims were made, other concepts explaining or focusing on elements either within the ambit of a given concept or adjacent to them, could exist alongside one another - both could be found useful in coming to grips with a given phenomenon or problem. It was suggested that the question of a concept's reality derives not so mcuh from the empirical evidence adduced in its favour, as from the degree of consensus among sociologists as to the usefulness or suggestiveness of the same. This should not be taken to mean that empirical evidence need not be used in determining the validity of a concept.

8. MATERIALISM (OR BIOLOGISM). See pages 26,29-30,33-34,34-39.

Materialism is taken to mean the notion that "all patterns are reducible to the primary pattern of the structure of inanimate bodies. The phenomena of life and mind are no different in kind from those of inanimate nature, and there is no need to posit any intervention from outside the mechanical order to account for phenomena like cathedrals. Matter has an inner tendency to tumble into complicated combinations like the human body, a restlessness which produces ever new systems

of equilibrium..." (Versveld,1954:47)

While it is recognized that the key C.H.E. theorists would undoubtedly repudiate a strict materialism, and while it is realized that not all were equally committed to the idea of attributing potency to material or biological phenomena, enough was said for such a case to be made of their position.

The point made in the above pages is basically as follows. It was noted that a marked preference was given to ecological terms. Park's initial commitment was to spatial factors. This level of analysis carried through and is evident in both the zonal and the natural area concepts. This can be said to be a materialistic level of analysis and is evident in the concept "movement" or mobility (a notion reminiscent of Hobbes' and Descartes' conceptions of the external world). Superimposed upon this and interwoven with it was an ecological commitment in terms of which human behaviour was interpreted. At this level a biologistic analysis could be said to be given primacy. The major problem with this is that institutional analysis is made to take a back seat. The social patterns detected are seen to be the result of ecological forces.

CHAPTER THREE

THE ECOLOGICAL CONCEPT : ARGUMENT BY PLANT AND ANIMAL ANALOGY

A) Introduction.
B) The Case of the Boll Weevil and the Voortrekker.
C) The Case of the Mindless Vegetable and the Vocationless Hobo.
D) The Case of the Tall Pine and the Dominant C.B.D.
E) Reviewing the Three Cases.
F) Issues and Conclusion.

A: INTRODUCTION

a) PRELIMINARY REMARKS.

As we have seen mathematical objects by their very purity and distinctness have a very special appeal. They have one disadvantage though, they are quite abstract in quality. It would seem that Burgess and McKenzie felt more at home with this type of concept. Park, perhaps because of his journalistic background, developed a rich repertoire of more concrete images. It is these which add colour to his writings, and it was through these images and concepts that he reached out to grasp that highly complex entity in which he was involved, the city. A great deal of the argumentation proceeds from these concrete analogies. Virtually every aspect of their thinking has its support from an analogy.

It should be understood that the division introduced here between analogies based on mathematical type concepts - and those based on more concrete images taken from plant and animal ecology is a conceptual one. In the writings there is undoubtedly an interrelationship between the two types. The natural area concept for instance was, as we have suggested above, a mathematical type of concept - but it also had its more concrete illustrations, and the easy transference of qualities from one to the other, as we may surmise from Park's treatment of "naturalness" and "visibility" (see p.22) could lead to fallacious thinking.

What we will be concerned to show here is the logic behind the usage of the more concrete types of analogies: those based on plants and animals. The basic assumption upon which these analogies are built isthat there is a common element in the animal(or plant)/environment relationship and in the man/environment relationship. There are certain basic ecological processes discernible in both sets of relationships or communities. So far as human society is concerned the ecological element is designated the biotic or sub-social aspect.

It should be remembered that there was in Park's time much prestige attached to the "young" sciences of plant and animal ecology which had become "fairly well established." The frequent and prominent mention of this fact in the introductory paragraphs of a number of the C.H.E. articles is highly suggestive. There was a tacit acknowledgement among them that the biological model "seemed to hold the best promise as a guide for sociology into the world of science" (Reissman,1964:96). No doubt a vicious circle phenomenon operated. The more analogies were drawn, the more authentic the argument by analogy seemed. What Park supplied, though, was not merely a series of well-chosen metaphors. His genius was to create out of a "suggestive analogy" a "socially relevant theory." "Park's purpose was to develop a rationale that would simplify the study of organization and render it more amenable to analysis."(Reissman,1964:101). What we wish to do here is to expose this rationale.

b) DEFINITION AND ILLUSTRATION OF THREE TYPES OF ANALOGOUS ARGUMENT.

Thouless (1953;1958) distinguishes between three types or stages of analogous argument. These will be followed here. Thouless' definitions are illustrated here with examples from C.H.E. While the main purpose of this section is definitional, the examples illustrate the logic of the Classical Human Ecologists.

First, there is the Metaphor or Illustrative Analogy. This is the type of argument in which an analogy is used more or less explicitly merely for illustrative purposes. Park does this on occasion, for instance when he says (1925:156): "the human creature is a good deal of vegetable. This is evident in the invincible attachment of mankind to localities and places; in man's...inveterate and irrational ambition

to have a home...in which to live and vegetate." What he wishes to do here is to illustrate concretely man's attachment to specific places - and he does this, one imagines with a goodly portion of humour. No one (it is imagined) can seriously say "the human creature is a good deal of vegetable" without seeming to be making a joke. As we shall see, however, Park takes this analogy much further than this.

While one can never be certain with Park, there does seem to be one instance at least where an analogy was used at a purely metaphorical level. Writing of the social origin of institutions, Park (1939;1952: 245) held that "every institution may in turn be described as a movement that was once active and eruptive, like a volcano, but has since settled down to something like routine activity." What he wishes to do here is merely to illustrate concretely the way in which institutions have arisen. While analogy is used on this level there is little harm done - in fact, just the opposite, for it makes for entertainment and also for easier understanding. Pictures are more readily grasped than abstract concepts; and the argument about institutions arising from "emergencies",then becoming "movements" and finally "institutions" is made that much more easy to follow. Had the metaphor been taken a stage further, for instance if it was argued that because erupting volcanoes are harmful to human lives <u>just so</u> are "social movements" harmful, the analogy would have been pushed too far. Some social movements are harmful but a reference to an erupting volcano in this context would be grossly misleading.

Generally there is a serious side to Park's analogies, for he was not only a journalist, but a social scientist. In otherwords there was more to it than mere entertainment and illustration - and this <u>more</u> leads us to consider the next stage.

Second, <u>Imperfect Analogy</u>. In a sense all analogies are imperfect by nature, for as Chambers (1966:34) has it, analogy means "an agreement or correspondence in certain respects between things otherwise different." Involved in making an analogy is a reasoning from apparently similar cases. One would not use an analogy to explain identical cases.

Let us follow Thouless' definition (1958:140):

> When...we use a concrete illustration in order to deduce new conclusions, it is no longer a mere illustration, it is an argument by analogy...Reduced to its bare bones, it can be expressed as the argument that because N has properties a and b which belong to M, it must have the property c which also belongs to M. Displayed like this, the argument does not sound a very convincing one.

We have a good illustration of this stage or type of analogous argument in the vegetable analogy mentioned above. Man has on occasion the property "place stability." He has a home. There is nothing spectacular about this. In this respect he can be likened to a carrot in a vegetable patch. To go on to say or imply that because the carrot did not consciously choose that particular vegetable patch, just so, in a similar mindless manner is a man attached to his home, is to draw an inference which does not square with reality. Certainly, men have sometimes strong ambitions to have a home - and their actions in acquiring one may seem "irrational" - but men do not relate to homes in a mindless manner. A man may choose to live in a particular place because that's where his friends stay. To those who wish to live in semi-isolation this may seem "irrational." He may even live in a particular place because his wife wishes to be near her mother - and there may be a general shaking of the heads of disapproval. If for argument's sake he has only one house to which he can go - even then his staying there will not be mindless. He might choose to stay there rather than sleep in the street or leave town - but the point is that he does have the choice. Similar points could be made in the case of the man who has a home and for various reasons refuses to leave. The main point is that the man has a choice in a way that the carrot does not. The carrot has a reciprocal relationship with the soil, it takes and, if it is not used in the cooking pot, it stays and dies - it gives. Man too takes and gives - and has a reciprocal relationship with his environment; but, unlike the carrot, he knows he does. "Human beings differ from plants and animals, not only in that they control their environment, but also in that they desire to conrol it and that with this desire they consciously seek and find the means to create a new environment."(Alihan,1938:87).

Sometimes the argument by analogy has durability. Other times the analogy breaks down early on in the argument. In this case the argument

seems to break down early. The point is that for the author it is not always easy to detect error. As we shall see Park stretched this analogy even further than this.

Third, Forced Analogy. These Thouless (1958:148) tells us occur often in the course of public speeches when emotions are likely to be high - under these circumstances there is a greater readiness to accept "immediately any vivid metaphorical or analogical presentation of a matter." In ordinary conversation their looseness of association is more likely to be challenged and exposed.

There was one famous occasion when Park used a forced analogy in circumstances similar to those described above Park, well-known for his commitment to Negro civil rights, was once faced with a number of students who wished to take action against racial discrimination. Burgess (Coser,1971:372) relates how he "told them flatly that the world was full of crusaders. Their role instead was to be that of the calm, detached scientist who investigates race relations with the same objectivity and detachment with which the zoologist dissects the potato bug." Thouless(1958:146) tells us, and we can see how it operated here, that "The mere fact that the argument is in the form of an analogy is often enough to force immediate irrational acceptance."

It may be objected that the underlying factor which gave weight to Park's words lay in his well-known sympathy for the cause for which the students wished to take action. This is not denied. What we are interested in is the manner in which this authority was conveyed. The point is that the use of analogy in this context of roused feelings was effective. The irrationality of the argument - the point that the way the zoologist studies the potato bug may have very little to do with the way a sociologist studies race relations does not seem to have been raised. It may well be that by objective thinking the sociologist is performing a vital role - this is not the point - the point is that the justification of such action by reference to the zoologist is not only unhelpful, it is misleading. The sociologist studying race relations may feel, for some reason, that intervention on his part in a given situation may be justified - the zoologist would hardly ever feel the same compunction on behalf of his potato bug.

One imagines that this particular analogy would carry little weight in todays campuses - for a variety of reasons not relevant here. There is little doubt though that "forced analogies" have taken their place in the service of other causes, and that they are found to be as effective.

So much for an initial definition and illustration. It should be pointed out that Park and his colleagues hardly ever used analogies as, in the latter illustration, mainly for effect. In their academic work there is always a more serious intention - and a more elaborate one. We will have occasion to point out the use of this type of analogy in the more serious work, however.

B: THE CASE OF THE BOLL WEEVIL AND THE VOORTREKKERS.

It should be remembered that Park's basic concern was explaining the phenomenon of the modern city, particularly Chicago. And one of Chicago's most impressive features was its growth by immigration. We have already had call to mention Burgess' impressions of this (see p.13); the title too of his 1924/1925 paper, The Growth of the City reflects this same concern. Park (1929;1952:184), gave expression to this same phenomenon of the growing city in the following words:

> In the great cities to which the tide of immigration, particularly in these later years, so irresistibly tends, great and revolutionary changes, not only in the form but in the content of our social life, are evidently taking place.

It is really with this picture of a rapidly expanding Chicago at the back of his mind that Park views the historical scene in South Africa. It was as he contemplated the successive invasions and settlements, Bushmen, Hottentots, Bantu, Boers and English that a (to my mind) fanciful analogy occured to him. This analogy occurs in his perhaps most authoritative paper on Human Ecology (1936).

The description is somewhat elaborate (1936;1952:149):

> The boll weevil crossed the Rio-Grand at Brownsville in the summer of 1892. By 1894 the pest had spread to a dozen countries in Texas...by 1928 it had covered practically all the cotton producing area in the United States.

Park (1936;1952:149) goes on to say, not, one suspects, without some approval:

> [it brought] destruction to the cotton and great losses to the planters...The consequences to agriculture were catastrophic but not wholly for the worse, since they served to give an impulse to changes in the organization of the industry long overdue. It also hastened the northward migration of the Negro tenant farmer.

In terms of our formula for "argument by analogy" Park's logic can be represented as follows:

Because the boll weevil has properties:

(a) movement:	"[it] crossed the Rio-Grand at Brownsville... [and] spread to a dozen countries in Texas"
(b) speed:	within a period of 28 years the boll weevil had "covered practically all the cotton producing area in the United States."
(c) dominance:	"[it brought] destruction to the cotton... the consequences to agriculture were catastrophic..."
(d) numerical superiority:	"incidently multiplying its population to the limit of the territories and resources" (Ibid:150).

Which also belong to the "Boer trekkers" (Ibid:150):

(a) movement:	"[they trekked] out into the high veldt of the central South African plateau..."
(b) speed:	"...within a period of one hundred years..."
(c) dominance:	"filling it...with a population of their own descendants."
(d) numerical superiority:	(implied) "filling it";

it follows that the impersonality and inexorability and disruption with which the boll weevil became dominant and populous in Texas also belongs ("not unlike") to the Boers who settled at one stage in the central and northern parts of South Africa. But is this in fact so?

Let us examine the points in order:

(a) The inexorable movement imputed to the boll weevil as it "crossed" the Rio-Grand, etc. has, in fact, if one thinks about it, very little likeness to the Boers who "trekked" to the north in South Africa. In a general comment in the same paper introducing the section dealing with the boll weevil analogy we are told that (Ibid:148), "When the pressure of population upon natural resources of the habitat reaches a certain degree of intensity, something invariable happens...the population may swarm and relieve the pressure of population by migration." No doubt this is an accurate description and explanation of why the boll weevil crossed the Rio-Grand - but there is nothing here which has any parallel with why the Boers trekked into the interior. It was by no means a matter of "pressure of population" that motivated the trekboers to move away from their easily acquired farms in the Cape. Rather it was a mixture of boredom with farming and frustration with the cussedness of the Company and its officials, as well as the promise of adventure that led them to discover new fields, or even to join in the commandos in promoting their interests in land and cattle. The causes behind the historic movement of the Voortrekkers which ended in their setting up Republics in the North are too well known to be mentioned in any great detail here. But by no stretch of the imagination was it a matter of "population pressure" - it was rather a matter of escaping British rule and a desire for independence and internal control of their own affairs.

Just as it would be absurd to reverse the analogy and argue that the boll weevil had Republican sentiments,[1] so is it absurd to argue from the inexorability of "pressure of population" seen to be operative in the Mexican weevil. There is nothing inexorable about the attitudes of the Afrikaners at a particular stage in history - were they inexorable there could be no social change - nor could there be any hopes or regrets.[2]

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(1) Park in a later essay (1939;1952:253-4) says "Plant communities do not, of course, act collectively as animals do, but the associations they form... do, by diminishing competition within and by resisting invasion from without, make more secure the life of the community and of the individuals of which it is composed." It would seem that Park argues both for and against himself here - this issue is pursued in "The Case of the Mindless Vegetable ...etc."

(2) Park (cf. Turner in Park,1967:xxxviii) shared this belief but does not apply it consistently: "The fact that men can look back with regret to their past, and forward with lively expectation to their future, suggests that there is...an amount of tension and sustained suspense which tends to break up established habits." As Turner points out this contrasts with the lives of animals.

Cultural variability as well as the self-consciousness of a responsible act are part of the nature of man. The nature of the boll weevil is neither variable in the same manner nor are its acts self-conscious.

(b) Impersonality. The speed with which the boll weevil moved in and took over the cotton fields of America is impressive. Nothing it seemed could stand in its way - nor - however much Park may have approved of some of the effects - is there any notion that the boll weevil concealed within its bosom any rejoicings or regrets at the "catastrophic" consequences wrought upon Texan agriculture. And yet if the impersonality of this "movement" of "forces" is not greatly explicit here it is certainly implicit.

The notion that "social forces" "may be, and sometimes are, impersonal in character" (1936;1952:135) is certainly one of the important beliefs of the Chicago school, and is seen in the more revealing analogies drawn by other colleagues. Thus Zorbaugh (1926;1961:45) for instance, likens the movement of the city to that of a robot which "goes its own way indifferent to the will of its creator." The fact that this is a forced analogy (for robots are by definition totally obedient to man's control - nothing could happen which was not pre-planned) only adds to the real point of the analogy, namely the mechanical and automatic action which is inherently impersonal. Zorbaugh (Ibid) tells us therefore, "Candid recognition of the role of these persons and groups [in the city] led writers on social, political and economic questions to give them the impersonal designation of 'social forces'." Other analogies include, crystal growth (Ibid:42), theatre tickets (McKenzie,1926:31-33), the magnet (McKenzie,1925:70,77) - all illustrate the impersonality of "social forces" especially that of growth. This search for impersonal law-like principles of course goes back to Malthus (Bowen,1954:87) and is in fact a corrollary of the first assumption, that of inexorability in the course of human affairs.

However much the Boers' trek to the North may seem inevitable the designation of their actions as impersonal cannot be so easily made. For assumed in the argument that the Boers are "not unlike" the boll weevil is the inherent capacity of human beings to be reflective and rational. Were this not so the argument could not proceed - nor would the effort to challenge his statement be of any use. It is something

of a contradiction therefore to argue from the inherent impersonal properties of the boll weevil to similar characteristics in any group of human beings - for the very argument by which it proceeds is its own disclaimer. It is not argued here that all men are equally self-conscious or responsible but it is argued that any description of human action, whether corporate or individual, which axiomatically omits self-consciousness and therefore choice as a characteristic, is erroneous.

Thus when Park (1936;1952:226) argues that there is an ecological "principle" "that the land eventually goes to the race or people that can get the most out of it" we have here an example of a commitment to ecology pushed to a logical and absurd conclusion. Similarly Park (Ibid:226) is surely sadly misled when he argues that "The thing which makes the settlement of South Africa relevant and significant, as an example of succession, is the fact that it seems to represent not a casual sequence of events but the consequences of an inexorable historical process." In the first place the real bite of the "principle" is taken away by the reference to the time factor: "eventually." Vagueness at this point contrasts sharply with the many precise references to dates and times when describing the advent of the boll weevil in Texas. The point is that vagueness here is the price of maintaining the principle. It takes away the conditions under which such a principle could be tested. If for instance it was argued, as it might be argued today (cf. Whisson,1971), that the !Kung bushmen get the most out of the land <u>in the long run</u> because of their policy of preservation, rather than the short term extractionist policies apparent in certain cases of modern industrialized man's activities and that therefore they will "eventually" inherit the earth, the absurdity of this is readily seen. If they have not possession of it now, is it only a matter of time?

Secondly, while the sequence of events by which Europeans established themselves in South Africa may, correctly, not be described as "casual," commitment to the idea of colonization was by no means constant nor was it inexorable. Were it so the anti-colonial policies recently pursued would be an axiomatic impossibility. The reference to the Hottentots who "drove," or the Boers who "conquered," or to the English

who "forced," cannot be adequately reduced to impersonal forces at the ecological level, for they are inherently personal. Pressed to its logical conclusions the ecological explanation here illustrated is, to say the least, misleading.

(c) Disruption. To return to a point made in the very beginning of this example, it must be remembered that while speaking about the boll weevil and South African history the real focus of attention was Chicago. A number of critics note that Park and his colleagues concentrated too heavily upon the forces of disorganization - forces which because they were natural were considered beyond the complete control of man. It was under impact of these "subversive" forces,(1) seen in the continuous in-migrations of group upon group of people that, for instance, family life was seen to be disrupted, neighbourhoods lacking in informal social controls were seen to give rise to crime, delinquency, etc., conflict between generations and the breaking down of age old traditions was seen to give rise to individualism, and so on. Writing about Juvenile Delinquency Park (1925:107) gave a heartfelt expression to this situation.

> We are living in such a period of individualization and social disorganization. Everything is in a state of agitation - everything seems to be undergoing a change. Society is, apparently, not much more than a congeries and constellation of social atoms.

The question is whether, "the catastrophic theory of history" set forth in the analogy of the boll weevil and the Voortrekkers should be elevated to a universal law level: i.e. whether the particular sequences of conflicts and of invasion in South Africa has any universal status. Alihan, and we agree with her, (1938:181) thinks not:

> Whether the reversal of this type of sequence, such as the succession of Barbarians in ancient Rome or the Tartar invasion of Europe, could also be termed as part of an "orderly and irreversible series of events" and as "the consequences of an inexorable historical process," or whether these would lie outside the process of succession, we have no way of telling. No more reason is there to maintain that the order of sequence described above [i.e. referring to the South African sequence] is of universal validity.

(1) Burgess (1925:47): "The profound and 'subversive' forces which have wrought these changes are measured in the physical growth and expansion of cities."

But whatever likenesses Park saw between the particular sequences in Texan agriculture, or in the succession of South African races, there is one thing which both phenomena had in common,which, one suspects, was a key feature in their attraction for Park. Both situations could be described by the word "catastrophy." It was the conflict and disruptive element which authenticated the analogy. One may query whether this focus, or this particular excercise, helped Park in coming to grips with Chicago's situation. Possibly it no more than reflects the assumptions and impressions Park made of the business and economic world; a world in which individualism and the profit motive were characteristic of this period.

C: THE CASE OF THE MINDLESS VEGETABLE AND THE VOCATIONLESS HOBO.

The case discussed above is by no means an exception. The impression is gained that analogies are paired so that the opposite case could be argued on the basis of another analogy. Thus, for instance, while the boll weevil can be used to illustrate mobility and action - the vegetable in the garden patch is used to illustrate stability and permanence. The present example is chosen because we have here a self-contained illustration, and the sequence of arguments by analogies is shown more clearly. Also in chosing to discuss it at this point it serves to illustrate the complementariness in analogies just noted.

We have already introduced the preliminaries of this analogy (pp.50-51) - its general structure - and have pointed out where it breaks down. We pick up the story from there - so far the argument is pitched at a general level. In fact the argument so far was a stepping stone to drawing inferences about the "mind of the Hobo" - a subject of one of their earliest C.H.E. monographs (Anderson,1923). After the introduction in which it is asserted that man is attached by nature in a stable fashion to places, particularly his home, Park (1925:156) goes

on to state:

> I mention these things merely to emphasize a single point, namely, mind is an incident of locomotion. The first and most convincing indication of mind is not motion merely, but, as I have said, locomotion. The plants don't locomote, don't move through space... And when they do move, they have no goal, no destination, and that is because they have no imagination.

In terms of our formula for argument by analogy, Park's argument (Ibid:157-158) proceeds as follows:

Because vegetables have properties:

(a) mindlessness: "If the plants have minds, as some people assume they do, they must be of that brooding vegetative sort... absorbed in the contemplation of their own inner processes."

(b) not a great deal to contribute: "...like mystics who, quite forgetful of the active world..."

which also belong to some men, notably Hobos:

(a) dullness of mind: "Why is it that with all the variety of his experiences he still has so many dull days? Why, with so much leisure, has he so little philosophy?

(b) so little to contribute: "Why, with so wide an acquaintance with regions, with men...etc...has he been able to contribute so little to our actual knowledge of life?"

it follows that goallessness and the having of "no destination" in plants is also characteristic of Hobos. But is this not going too far? Plants have no destination by virtue of the fact that they are "invincibly" rooted in the soil. The fact is that by nature they cannot have destinations. But this tells us very little about the Hobo who has no destination not because he cannot, but because he "lacks a vocation." In fact the only reason why it is at all worth pointing out that the Hobo has no vocation or destination is by virtue of the fact that it is not impossible that he, by nature, should have these qualities.

A basic problem arises because of an ambiguous definition of movement. Plants "move" (albeit purposelessly) but as Park pointed out "the most convincing indication of mind is not merely motion, but, locomotion." However, we are given no clear indication as to how we are to distinguish

these two types of movement. Later (1929;1952:189), Park was to acknowledge this problem:

> There is, of course, more than one way in which mobility may be measured and interpreted. As a matter of fact, no wholly satisfactory units or formulas for describing these more complex population movements in quantitative terms has yet been devised.

The point is that Park, as well as the other C.H.E.s had committed themselves to the notion that movement was an index of social change (1925;1952:174). Just how so general a concept as "movement" could be used to differentiate qualitative distinctions necessarily involved in the analysis of human behaviour was the problem. The distinctions suggested by Burgess have already been discussed (cf.pp. 26-30). It was shown that the attempt to draw a distinction between "routine movements" and "mobility" broke down for lack of qualitative distinctions between variables. The same criticism, despite Park's confidence in the above quotation ("of course"), can be applied to Park's attempt to draw a distinction between "motion" and "locomotion," as well as McKenzie's (1925) suggested distinction between "fluidity" and "mobility", the latter being dismissed by Park himself (1929;1952:189). In any event, with regard to Park's distinction between mobility and locomotion, the analogy drawn between the moving vegetable and the Hobo must fall to the ground, as Park seems to indicate himself, by pointing out so firmly that plants have no imagination, for only Hobos had minds, and "mind is an incident of locomotion."

Park had the wisdom not only to write the conditions for this analogy's death warrant into the introductory formulations - for the analogy is obviously a forced one - but he also had the wisdom not to press it that extra step further and assert a necessary connection between the manner in which the vegetable absorbs sustenance from its surroundings and the manner in which the Hobo relied on casual labour provided by modern industry. But it is significant that a new analogy is introduced in place of this one at the close of the article: "Nothing could better express the spirit of the old frontier which, more than any other feature in American life, has served to characterize American institutions and American mores. The hobo is, in fact, merely a belated frontiersman, a frontiersman at a time and in a place when the frontier is passing or no longer exists."

Here the old analogy is discarded for a new one expressing the radically opposite case. While it serves, possibly, as a fine literary conclusion, it is ill-chosen, for while the Hobo and the frontiersman are marked, no doubt, by a common "restlessness" they differ in precisely the quality upon which Park focused in the previous analogy: vocation; for the frontiersman is characteristically a man with a vocation. His restlessness arises directly out of it. Had Park used the frontiersman as an analogy of the modern businessman he would have been nearer the mark. It is Alihan's (1938:6) opinion that "although the frontier had given way to a metropolitan economy, the pioneer spirit and tradition still persisted. It was a tradition of...conquest." Attention is drawn here to the fact that the cultural heritage played an important part in defining the situation for the modern businessman. The image of the cowboy is that of the violent self-regarding man. The fact that Park could attribute this to the Hobo bespeaks his misreading of that situation.

The question is whether the analogies, especially the vegetable analogy with which he started and provided the platform for the discussion, in fact gave any new insights in the ways of the Hobo. There is an undoubted value at the metaphorical level of these analogies, although they are by no means new ones. But the seriousness of tone and the manner in which they were used is in fact counter-productive. Because they are far-fetched, and because the unlikenesses are not mentioned, the elaboration in fact serves to obfuscate and confuse what understanding he undoubtedly had concerning the Hobo.

What is of interest in this example is the manner in which two analogies, which can be described as complementary, were used. When the first analogy no longer could be used to carry the subject matter any further, a new one was brought in to replace it. Argument by forced analogy in a way generates more of its own kind.

D: THE CASE OF THE TALL PINE AND THE DOMINANT C.B.D. (Central Business District)

Unlike the previous two cases the argument based on the analogy of the tall pine - a convenient abbreviation for the plant community - is spread throughout the writings of the C.H.E.s. In reproducing the argument therefore there is not only the danger that violence is done to the context in which various passages occur, but also the selection of passages can be subject to bias. Previous writers dealing with the C.H.E. approach have felt the same difficulty. Alihan (1938: xii), for instance, while testifying to a great difficulty in "seeking a coherence between the different concepts" nevertheless notes that because of generally shared assumptions that it was "essential to deal with the school as a whole rather than with the individual contributions." There are various methods of coping with this. For instance, one can limit one's references to one author as I have tended to do here, although in doing so the representativeness of the solidarity with which a view was held suffers in consequence. Perhaps, it is worth noting, therefore, in parenthesis, that so far as this analogy was concerned, its impact can be felt in the references and the types of argument in other writers: e.g. McKenzie,1925;74; Zorbaugh,1926;1961:47.

Another more important note must be made - in following the logical course we have set ourselves in which argument based on major theory generating concepts is traced, the argument shown here is artificially simplified. Following the ecological line of argument we have abstracted one half of a complex presentation. In doing so we have followed Hollingshead (1947, in Theodorson,1961:111) who noted that the "impersonal competitive relations as defined by classical ecologists are so intertwined with personal cooperative ones it is only by abstraction that we are able to separate the one from the other." Furthermore, this separation is based on the dichotomous distinction Park himself drew between competition and the other social processes, conflict, accomodation, and assimilation which were said to be culturally and consciously conditioned. Park is bewildering because at times he tries to say two things at the same time. On the one hand he affirmed that competition could be equally discerned in plant and human communities, on the other he maintained that competition was always veiled by a

cultural overlay (more particularly discerned in the other three social processes). For the moment though we follow the ecological line of argument in which impersonal competition, which was held to flourish in naked form in the plant community, was also seen to flourish in the city, more particularly in the economic sector. Much attention was given to this phenomenon and there is little difficulty in abstracting the argument - this suggests, possibly, that little, if any, injustice to the C.H.E.s is done in such a representation.

The assertion of similarity between the plant and human communities is more or less tacitly assumed. Thus in the chapter on "Competition" in Park and Burgess' Introduction to the Social Sciences, 1921;1969/1970: 185, we are told in the opening sentence in a matter of fact way that "Competition, as a universal phenomenon, was the first clearly conceived and adequately described by the biologists." Here again, (cf. p.36 above) it would seem that it is an argument by prestige. Upon this basis the inevitable consequences are merely observed - that the "struggle for existence" formula has become a commonplace; and that the economists of the eighteenth century were the first to attempt to rationalize and justify a social order based on competition.

Another step in the logic is at the same time implicitly argued - and that is the association or identity between the competition of the economic theorists and the competition of the biologists. In the same chapter Park (Ibid:188) can conclude a section in which the focus of attention has been on impersonal relations obtaining in the business world with these words:

> The plant community is the best illustration of the type of social organization that is created by competitive co-operation because in the plant community competition is unrestricted.

So far our observations have been based on the 1921 chapter. That this was a view which Park maintained throughout his subsequent career can be judged from the following words taken from an article published nearly twenty years later:

> In fact one thing that makes the study of plant and animal associations interesting is that plant and animal communities so frequently exhibit, in strangely different contexts, forms of association that are fundamentally like those with which we are familiar in human society. (1939;1952:253)(my emphasis).

While the likeness suggested above is accomplished in remarkably short space the degree of detail concerning the features of the plant community and the business community is not skimped on. Passages from various writers, mostly biologists and economists are quoted at some length, exhibiting their views on competition and its functions. In an Appendix [1] the authors, and their works, and the manner in which they were classified is reproduced. It should be born in mind, in receiving an impression on this basis, that these "adaptations" are all taken from one chapter. Other chapters have a similar composition. Throughout Park's subsequent writings particularly those published in the Thirties, reference is made to these authors and quotations from their writings is reproduced and incorporated into Park's thought in an even more integrated fashion.

There are a number of grounds upon which a likeness between plant and human communities seem to suggest themselves. Had Park been more explicit about the basis of this analogy he might have been more hesitant in his argumentation. For instance, both the city and the plant community, especially the forest community, are apparently sharply bounded; again, both the city and the forest community are marked by various strata or layers or types: trees at the top and ferns growing beneath suggested, it would seem, the same sort of superordinate-subordinate relationships between the "top dogs" of the business world, and the workers.

The three passages below are chosen as being suggestive of the above interpretation. The first passage is a more general reference - the following two are more particular.

> The plant ecologist is aware of the effect of the struggle for space, food, and light upon the nature of a plant formation, but the sociologist has failed to recognize that the same processes of competition and accomodation are at work determining the size and ecological organization of the human community. (McKenzie,1925:64)

An explicit linkage should not be sought for in the two following passages; as we have mentioned this was largely assumed. These two passages are singled out for mention as they both focus on the

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(1) See Appendix on page 144.

importance of tallness. Reissman (1964:100) has summarized the association as follows: "The tallest trees...are the dominants in a biotic community. In the urban community, industry and commerce are dominants in much the same way."

> In a plant community this dominance [of one species] is ordinarily the result of struggle among the different species for light. In a climate which supports a forest the dominant species will invariably be trees..."Light being the main necessity of plants, the dominant plant of a community is the tallest member, which can spread its green energy-trap above the heads of others..." (Park,1936;1961:25)

> There seems to be a very direct relation between the size of the city and the area which it dominates, politically, culturally, or commercially. In fact, cities as well as the area of which they are the centers grow at the same time and in something like the same extent on the peripheries and at the centers. Thus there is a very definite relation between the height of buildings at the business center and the limits of the surrounding suburban areas, between land values and trading areas. (Park,1936;1952:136).

There is little doubt that Park welcomed the "impersonal competition" which he identified with "the struggle for existence" doctrine suggested by Darwin as obtaining in plant and animals. Setting aside the qualification that competition was reduced by a cultural overlay, Park (1936;1952:228) explicitly states: "Economic competition, as one meets it in human society, is the struggle for existence, as Darwin conceived it,...it is not different from competition as it exists in plant and animal communities."

As Park saw it (1936;1952:25) competition gave rise to two principles, or functions - dominance and succession - and these operated to establish communal order. Park honoured each of these ecological processes with individual articles - both published in the Thirties. Reference to these processes are however found throughout his writings. Succession was the subject of the first case considered in this chapter, and we pass over it without further comment. Dominance, however, was more closely linked with the economic aspect of the industrialized city and occupies our attention in this case. The question is: what was it about dominance that Park found attractive? There are a number of features: "The fundamental function of dominance seems to be

everywhere the same. It is to stabilize, to maintain order, and permit the growth of structure in which that order and the corresponding functions are embodied"(1934;1952:162 see also 1934;1952:160).

These may be conveniently reduced to two, and will be considered in reverse order:

(a) The permitance of growth of structure:

Perhaps the most important feature which attracted Park lay on the other side of competition - the Darwinian doctrine of natural selection. Because of the "struggle for existence" an adaptation took place whereby any variation however small which had proved useful to the individual in this struggle against his fellows or the environment, was preserved in the line of evolution and passed on to its offspring. In short, it was the fittest that survived. Applied to the modern city this meant, because of the competition, a search for new forms, for better adaptations, could take place. Writing about juvenile delinquency (1925:109) and how it should be tackled he says:

> In order to meet and deal with the problems that have been created by the rapid changes of modern life, new organizations and agencies have sprung into existence. The older social agencies, the church, the school, and the courts, have not always been able to meet the problems which new conditions of life have created...New agencies have been necessary to meet new conditions. Among these...are the juvenile courts, juvenile protective associations, parent-teachers' associations, Boy Scouts, Young Men's Christian Associations settlements, boys' clubs of various sorts...playgrounds and playground associations...Largely on the basis of the experiments which these new agencies are making, a new social science is coming into existence...sociology is ceasing to be a mere philosophy and is assuming more and more the character of an empirical, if not an exact, science.

The excitement, with which the biologist observed new forms emerging in a long line of evolution, was passed on to the sociologists. The idea that new agencies had "sprung into existence" to meet new conditions was certainly inspiring - and in this spirit of adventure Park made encouraging remarks with regard to the energies expended in the setting up of playgrounds. Reference is made to "experiments" which carries with it the notion of inventiveness - sociology in its emergence is seen as interrelated with the other new forms. And yet, it may be asked, if these new forms sprung into existence as it were on its own steam, was it really necessary to experiment and research

and investigate? If the problem was one which had "its sources in conditions over which...we have litte control"(Ibid:110) what difference would increasing our "present knowledge" make?

One's optimism or pessimism is no doubt a function of one's own experience. After all, Park was not (it is presumed) personally involved in running the playgrounds. He could pursue the logic of his premises more thoroughly (and devastatingly) in terms of the newspaper to which he had earlier committed himself in an idealistic fashion. There is the possibility that he subsequently thought better of an activist approach.(1) It was in terms of the newspaper that he argued with admirable consistency on the basis of the plant and animal analogy that competition was a non-conscious process.

The consequence of this belief led to adopting a passive stance with regard to the organization of economic structures - and, more broadly, city governmental organization. This contrasted strongly with his life style. Two things should be born in mind about this:
(1) We are dealing here with only one half - albeit a predominant half - of his more complex overall stance;
(2) His career actions, especially with regard to establishing sociology as an autonomous discipline with recognition in the academic and public worlds can hardly de described as passive! As so many authors testify, he took the bull by the horns. (Cf. Coser,1971:381-384).

The manner in which the ecological commitment skewed Park's institutional analysis is well displayed in his analysis of the modern newspaper. He writes (1923;1925:80) as follows:

> The press, as it exists, is not, as our moralists sometimes seem to assume, the wilful product of any little group of living men. On the contrary, it is the outcome of a historic process in which many individuals participated without foreseeing what the ultimate product of their labours was to be.

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(1) Park (1921;1969/1970:47): "We have been seeking to reform human nature while at the same time we refused to reckon with it. It has been assumed that we could bring about social changes by merely formulating our wishes, that is, by 'arousing' public opinion and formulating legislation. This is the 'democratic' method of effecting reforms...What reconciled men to it was that, like Christian Science, it frequently worked." The point is that, as Burgess noted (p.11 above) it more frequently did not. See also the advice he gave to student would-be-activists (p.51 above).

At face value he starts with what would appear to be a contradiction of what is obviously the case; and as án introductory statement, it has the merit of rousing interest. This is of course commendable - provided that the initial "cognitive dissonance" is immediately dispelled. And this, in good journalistic style, is what Park appears to proceed to do. Having claimed that the newspaper is not the product of a group of living men, he goes on to qualify this by stating that it is, on the contrary, the outcome of a historical process. The reader would then conclude that the phrases "as it exists" and "living men" were meant to be taken in a specialized sense - and as such there is little to quarrel with. Certainly it would be generally accepted that the present product is in fact the result of a cumulative effort of generations of men - and that the status quo does not merely represent the achievement of those presently involved; for they did not build it up from scratch, but rather entered into a tradition. The reaction of the ordinary reader would possibly be - so what?

But Park's intention is deeper than this, for, as one reads further, he appears to be saying that the newspaper is not the outcome of the conscious efforts of men, period. And it is this assumption that needs to be questioned. To be sure, "No <u>one</u> sought to make it what it is" (Ibid:80)(my emphasis), but this does not mean, necessarily, that <u>no</u> one did. It may indeed be true that not all involved knew what the "ultimate product" would be, but this does not necessarily mean that some men in previous generations did not have a vision of what the newspaper might one day become. It may be agreed that this vision, when it is boiled down to certain specific thinkers, only roughly approximates what now obtains, but this is no reason for dismissing what was surely an essential contribution to what came to be. Yet this is precisely what Park does: "In spite of all the efforts of individual men and generations of men to control it and to make it something after their own heart, it has continued to grow and change in its own incalculable ways."(Ibid:80).

In marked contrast to the discussion which emerged when thinking about playgrounds, we see what it really means when a new form or organization springs into existence. Instead of the emphasis falling

on experimentation and innovation, we are told that the new form grows and changes in ways despite the control attempts of men. As Alihan (1938:86) remarks: "Even when ecologists do distinguish between the natural and the planned, it seems that the planned phenomena eventually take their natural course of development." It is plain that the C.H.E.s lost sight of the volitional aspect of human behaviour.

(b) To maintain order and stability.

So far we have seen how a commitment to Darwinian notions not only led Park to search for new structures, but it also led him away from a direct and conscious involvement in the creating of new institutional structures. We noted a similar orientation in the second chapter when dealing with natural areas. Park's ecological commitment led him to seek solutions to the political malfunctioning of city government in the redefinition of voting areas - and not with the political institutional structures themselves. Apart from the intellectual commitment to ecology, there would seem to be a further reason why Park would only go "so far and no further" in his search for new structures. Mention has already been made with regard to the sense of alarm felt by the C.H.E.s (see p. 57) and their consequent focus on social disorganization. In the midst of a society in flux an appropriate response might well be to search for stability and order. Inventiveness and creativity would seem to require a certain security from which to launch out. What with the old traditions dying, or seeming to, a sudden death, and new social movements springing-up alongside like volcanoes, any search for new forms would require a prophet-like insight into what of the old would endure - and what of the new would become institutionalized into the order of the future.

This stability Park saw as emerging from the forces of competition and domination:

> Under the influence of an intensified competition, and the increased activity which competition involves, every individual and every species, each for itself, tends to discover the particular niche in the physical and living environment where it can survive and flourish with the greatest possible expansiveness consistent with its necessary dependence upon its neighbours. (1936;1961:27).

In other words, as Park (1939;1952:253) observed in terms of the plant community: "as each species finds its niche in the community, competition is diminished." Having discovered its niche and so reduced competition,

a "passive resistance" may be noted to operate so as to reinforce the structure, "resisting invasion from without" and reinforcing the accommodative relationships established within. In plants we are told, this "limitation of competition" is "purely external."

There are a number of passages in which this argument is extended by analogy:

(a) to the city as a whole (1936;1961:25-26):

> The area of dominance in any community is usually the area of highest land values. Ordinarily there are in every large city two such positions of highest land value - one in the central shopping district, the other in the central banking area. From these points land values decline at first precipitantly and then more gradually toward the periphery of the urban community. It is these land values that determine the location of social institutions and business enterprises...
> The so-called natural or functional areas of a metropolitan community - for example, the slum, the rooming-house area, the central shopping section and the banking center - each and all owe their existence directly to the factor of dominance, and indirectly to competition. The struggle of industries and commercial institutions for a strategic location determines in the long run the main outlines of the urban community...
> Thus the principle of dominance, operating within the limits imposed by the terrain and other natural features of the location, tends to determine the general ecological pattern of the city and the functional relation of each of the different areas of the city to all others.
> (For further detail see 1929;1952:190-191; 1939,1952:119; McKenzie,1925:73-79; Park 1939;1952:119f).

(b) Not only were the locations of whole "natural areas" determined by this force but also "every individual member of the community is driven, as a result of competition with every other, to do the thing he <u>can do</u> rather than the thing he <u>would like to do</u> (1925;1952:67) (authors emphasis). In short, dominance operated across the whole macro-micro range.

A possible summary of the above argumentation might be as follows: The greater the competition, the greater (in the long run) the dominance; the greater the dominance, the greater (in the long run) the consequent order and stability. Assuming this summary to be accurate two rather interesting passages are explained. Writing in 1939 when there was considerable concern about the outbreak of World War II (it is presumed

that this is the "turmoil" to which he refers) Park states:

> The human is not essentially different from the plant community. I should like to add, if the comment were not wholly irrelevant, that it is a comfort in these days of turmoil and strife to realize that society and human beings, when in repose, do retain and exhibit some of the dignity and serenity of plants. (1939;1952:241).

In other words Park would appear to be arguing that inasmuch as the present turmoil is the result of "competition" comfort may be gained from the fact that in a well dominated organic community peace is always the end result. A time of turmoil thus, when settled, leads to "dignity and serenity."

Similarly, after noting that in the business world competition meant "interaction without social contact," he goes on to affirm that there is some substance in the popular sayings that one "must not mix business with sentiment" or that "business is business," or that "corporations are heartless." In fact "it is just because corporations are 'heartless' that is to say, impersonal, that they represent the most advanced, efficient, and responsible form of business organization." (1921;1969/1970:188). The linking of efficiency to responsibility is explained by the general approval Park gave to order. The greater the efficiency and therefore impersonal competition, the greater the resultant interdependent co-operation (symbiosis) or "common welfare."

Four questions may be asked of the assumptions and argumentation in the above analogy.

(1) Can the competition of the biologists be identified with the competition which obtains in human society particularly that noted to occur in commerce and industry?

This question is usefully tackled in two stages:

(a) Is the transference of the impersonality of relationship supposedly characteristic of plant and animal life to relationships among human beings in the economic sector of society, legitimate? The question of impersonality as an appropriate description of human action has already been discussed in this chapter (pp55-56) and the points raised there can be equally transferred to this case. What is new in this case is the specific reference to the business sector which has often been said to be marked by impersonal relationships - though it is

a commonplace that sociologists have drawn attention to the importance of informal and personal relationships in the most formal of structures.

A background note is pertinent at this point. It should be remembered that in large part the theorizing of the C.H.E.s can be said to represent the confluence of two streams of thought- Social Darwinism and Classical Economics. Both gained prominence in the nineteenth century, and both explain human actions in terms of impersonal competition (as Park himself indicated, see p.63). Darwinism provided the aspect of unrestrained fierceness in the competition, either among individuals of the same species, or between species, in the battle for survival in the face of scarce resources. Classical Economics provided a view of "economic man" in which individuals or groups of individuals sought always to maximize profits, and in doing so rationally by division of labour and specialization. Prominent also was the laissez-faire thesis, a belief that a stable equilibrium of social and economic interests would automatically arise - or that given the elimination of government or political interference a perfect equilibrium of power would develop. This was argued on the grounds of a belief that an interdependency among different parts would make for the benefit of the whole while at the same time allowing the individual parts to flourish. These two doctrines combined in the thinking of the C.H.E.s in such a way that an easy transference from ecological competition and dominance, to competition in commerce and industry, was made.

A basic problem about this implied identity in the transference may be raised by conceding for the sake of argument that there may be a difference in degree in impersonal relationships going from plants to animals to humans in an ever increasing degree of complexity. But at some stage the question must be raised, would there not also be a difference in kind as well? Alihan (1938:87) points out that the Darwinist "absolutist assumption" is that "of a constant unchanging nature, where evolution is approached as a simple additive process...Can reality," she asks, "social reality in particular, be reasonably interpreted in terms of 'more' or 'less', especially if we seek to interpret the 'more' by the 'less' and not vice versa?" In other words the basic objection to the identification of business

relations to those said to obtain in plants and animals is that it is reductionist, the more evolved aspect been seen as rooted in the less evolved. What is missed is that "cultural factors play a role in the point where impersonality makes its appearance in human affairs" (Martindale,1958:50). Even were it conceded that there may be a difference in degree, so far as "impersonal competition" was concerned, the total situation and not only the struggle, would be different. This means that impersonal or unconscious relationships at the animal or plant level when fused with consciousness at the human level (at varying degrees) involves so great a transformation that the analogy becomes "worthless." Alihan's (1938:87) conclusion is worth quoting in full:

> The competition of plants for soil and water has no corresponding factual process in the competition of human beings within any physical area. Since any crowding is translated into conscious struggle in human groupings, where the very expression and methods of competition are not only conditioned and complicated by consciousness but also are actually determined by it, is it possible to speak of biotic competition among men?

(b) Is it possible, on the basis of an analogy drawn from plant and animal life, to abstract certain common external manifestations from human behaviour? In the first place the point must needs be made that there is no objection to this suggestion in principle though the difficulties involved would be great. Alihan's (1938:88) opinion is that were this to be done a "civilizational aspect of society as against its cultural facets" might be studied. Whether it would be possible to do this in such a way that the impersonal elements in a relationship be identified and the volitional aspects be left on one side is another question - and one which so far as the attempt made by the C.H.E.s are concerned, must be answered in the negative. (Cf. Alihan,1938:161).

(2) Can any social institution arise despite "the efforts of individual men and generations of men to control it"?

One's point of departure is crucial. If potency is given to non-conscious factors in explaining the emergence of social structures then as we saw in the previous chapter in the case of Zorbaugh (p. 35), Burgess (pp. 26-30) and Park (pp20-23), cultural factors would seem, as a corollary

of this position to assume either a weak ameliorative role or a purely dependent and passive one. The crucial consequence of this bias, which we see strongly put in Park's analysis of the modern newspaper is that, as Janowitx (1969/1970:xvi) has it "they viewed these political elements as derivative or epiphenomenological. They could not see political institutions as having independent consequences." As we pointed out earlier, this view though was seldom expressed in pure form - hence the defensive remarks with regard to categorizing Park as a biological determinist.

Coser's (1971:363) defence is perhaps the mildest. He merely points out that Park was fully aware "that while human communities exhibited an ecological or symbiotic order quite similar to that of nonhuman communities, they also participated in a social and moral order that had no counterpart on the nonhuman level." Reissman (1964:95) states that "Park, turned to the biological sciences with cautious enthusiasm" and unlike some, the C.H.E.s were "never carried away completely by a view that social phenomena could be explained by biological concepts." This opinion is however qualified immediately afterwards by noting that while Park was not among those who "became slaves" of a popular Darwinism - nevertheless "he came close to them at times in his ecological theory, and these instances were responsible for the final weakness of his theory"(Ibid:96). What is evident in these remarks is a reluctance to make Park out to be a simple biologizer. The point is that it should not be denied, as Coser indicates, that Park or the C.H.E.s had an awareness of social and cultural phenomena - this point will be dealt with in the next chapter. But it is surely possible to have both a high awareness of social and cultural phenomena, and at the same time to give a primacy to ecological principles in their interpretation. Reissman's remark draws attention to the dilemma which the C.H.E.s faced as being sociologists committed to ecological principles. At any rate there is little doubt that they regarded the ecological aspect as an excellent starting-off point. The point is that this can make all the difference - for it is difficult to see how, once potency is given to non-cultural or non-consensus elements, a biological determinism can be avoided;

> [It is not] easy to see how the ecologists can avoid the trap of biological determinism. So long as the ecologist insists upon viewing human society primarily as subject to

> the same principles that guide organization in plant and animal aggregates, he confronts the same choice he has always faced: either he must be content to use ecology as a method subsidiary to a more sociologically based theory, or he must revert to some form of biological determinism. The dilemma cannot be avoided, given the primary assumptions upon which ecology depends for its identity. (Reissman,1964:119).

(3) Does efficiency in competition and domination always mean responsible action?

Writing about the modern ("as it exists") newspaper Park maintains that it is the "outcome of a historic process in which many individuals participated without foreseeing what the ultimate product would be." The question to be asked here is whether the modern newspaper - as it exists - is the "ultimate product"? Should this be answered in the affirmative, the question would then be - in what sense is it "ultimate"? Has it stopped developing? Has it reached perfection? Has it reached an all time high? If the answer is answered in the negative, the question then is by what criteria will the "ultimate product" be judged?

The reason why these questions are asked is that it would seem that what we are presented with here is a doctrine of progress which was popular in the nineteenth century and can be closely related with Darwinism - the notion that what comes later in time is necessarily better. The unsatisfactoriness of this type of proposition may be judged from the fact that despite the increasing efficiency of the newspaper ("Humanly speaking the present newspapers are about as good as they can be."1925:97) - Park decided to leave. In Burgess' (1964;1967:3) words: "Dr. Park found that, while newspaper publicity aroused a great deal of interest and stirred the emotions of the public, it did not lead to constructive action. He decided that something more than news was needed." His break with newspaper reporting led eventually to a successful academic career. Unfortunately "constructive action" apart from suggesting efficiency (!) is not very enlightening, but one is left with the impression that it was not merely on grounds of efficiency alone that the modern newspaper was being judged.

The problem about this position is that instead of tackling head-on the problem of where the process is progressing to, process itself is absolutized. Had this problem been tackled more weight might have

been attached to the visions, however paltry, of earlier generations and the power they exercised in terms of prophesy fulfilment. Just as it is impossible to tell whether progress or retrogress is being made without a fixed point of reference or an end in terms of which advancement can be reckoned, so it is with responsibility. Apart from a nostalgic looking-back to the past in which the village newspaper served the function of gossip and therefore the building up of community, we are not given any idea of what in the present circumstances the newspaper might become. There is the vague reference to the effect that "if the newspapers are to be improved, it will come through the education of the people and the organization of political information and intelligence" (1925:97). However, this point is left hanging in the air. It is thus that he ends on a defeatist note: "What then is the remedy for the existing condition of the newspapers? There is no remedy."(Ibid). It would seem that efficient progress by competition was questioned, yet there seems to be no reason why experiments and inventors which had marked the history of the newspaper for two centuries (of which Park had given an admirable account in this very article) should suddenly come to an end.

(4) Does it make sense to speak of plants being in "passive resistence"? Does it make sense to describe what is by definition an impersonal force as "responsible"?

The strength of the Darwinian influence is not to be underestimated, nor the potency attached to the "competition" concept. Schnore (1965:10) defending Durkheim (who was seen to occupy a similar position to that of Park as a macro-sociologist) queries whether, in Durkheim's reference to competition as a vital mechanism in the process of differentiation, there is any substance in the allegation that he was guilty of "biological reductionism." The defence is most enlightening:

> This question can be answered best by recalling the explanatory concepts that he employed (i.e. dynamic density and competition). Both refer to interaction and can hardly be called intrinsically biological constructs without stretching the meaning of "biological" to the point where it loses all discriminatory value. If anything, these are clearly sociological concepts.

If Schnore can defend Durkheim with such an argument in 1965 then how more potent was the Park's claim in the 1930's when he argued in similar vein?

In what is often taken to be Park's most authorative statement on "Human Ecology"(1936) he speaks of "competitive co-operation" as being a "sociological principle." Thus for Darwin this sociological principle constituted the "first clue to the formulation of his theory of evolution"; and Thompson is quoted as saying, "He [Darwin] projected on organic life a sociological idea...thus vindicated the relevancy and utility of a sociological idea within the biological realm" (1936; 1961:23). In a section headed The Web of Life he uses Darwin's illustration of the cats and clover to give substance to the interlinkedness (co-operation) and the "struggle-for-existence" (competition) therein discerned. And it is within this context that he claims these principles to be "sociological."

A possible explanation of this extension of the term sociological to biological referents lies in the notion of evolution wherein all reality is reduced to an amorphous flow - and what applies to one stage applies to all. Should this be the case then what is indicated is a possible extension of the discussion arising out of the third question above. What, it may be asked, are the criteria used in establishing the progression of evolution? If plant and animal relationships can be described as "social" then in what way can the emergence of man (for instance) be said to mark an advancement? Alihan (1938:80-81) spells out the confusion and inconsistency with which Park employed the term "social."

Our formula for argument by analogy can be employed here for purposes of clarification. It would seem that the argument proceeds as follows:

(a) Because the human community has properties

(1) interdependence
(2) mutual benefit of individual units through interaction,

also to be found in plants and animals, it therefore follows that responsible action, and self-conscious reaction such as passive resistence, found in huamn communities, can also be extended to plant and animal communities.

Before raising objections let us note that what is not being objected to is the fact that such a term should be extended in this way. For the biologist it may indeed be useful to suppose that an observed

interdependency meant a sharing of community spirit. The fact that a given species while taking from the web-of-life, which constitutes its environment, sustenance which allows it to grow to full potentiality, yet at the same time in one way or another, contributes to the sustenance of other organisms in the food cycle, and promotes the increase in the energy flow and complexity, may well be seen as a "community."

Furthermore the analogy once extended may be reversed so that an argument as such may develop:

(b) Because plant and animal communities which are seen to flourish have properties

(1) equilibrium
(2) domination,

which are also noted to occur in human communities, it follows that peace, dignity and tranquility found in plant communities can also be found to emerge in human communities in the same way. Again, it needs to be said that, while the reverse extension of the concept from plant to human communities may be more suspect, there is in principle no objection to this argument.

While there is no objection to argument by analogy in principle there is always the danger of fallacy and the following objections may be raised against Park's usage:

(i) Gettys (1940;1961:100) accuses Park of a "crude anthropomorphism." Here he objects to the first of the arguments from humans to plants. The point he makes is that in the borrowing process the concept is "stripped down until it remains barren of all those qualities considered as social":

> Piercing together fragmentary definitions we are led to conclude that "community" is essentially a population, territorially distributed and arranged, "rooted in the soil," and having its individual units living in a symbiotic relationship (state of mutual interdependence) with each other. Paradoxically, it is devoid of communication and consensus. It is characterized by competition on the level of struggle for existence, very much as it is found in the plant and animal level.

It may well be true that the greater the complexity in plant communities the greater its survival capacity - but to argue that the members of which it is composed exhibit "passive resistence" when under attack is to argue fallaciously. Passive resistence may or may not occur

depending on the circumstances and the personalities involved, whereas feedback systems operate automatically in plant communities.

Similarly in the use of the term "community." It may well be that interdependency and mutual benefit between certain species may occur - but to argue that plants and animals in such relationships have shared values and "consensus" is to loose sight of what is involved in these terms at the human level. As Gettys points out the plant community is devoid of communication - at least, let it be said, the type of symbolic verbal communication ordinarily presupposed as necessarily involved in reaching consensus based upon shared values.

Fallacy arises, not at the point where the term is used within a specific discipline, but when the term is used indiscriminately and interchangeably.

(ii) Similar objections may be raised against the reverse argument in which a concept having been altered in its essential meaning in an initial borrowing is used to throw light on the original image. Thus in the case of the "equilibrium" noted to arise as a consequence of "dominance" in plant communities it may well be appropriate, because of the increased energy flow and the consequent "flourishing" of the participating members, to speak of "peace" and "dignity" and "tranquility"; applied to human communities such thinking is suspect. Certainly it will not be denied that where "dominance" occurs in human society there may well be a stable order; but to go on to speak of peace, tranquility, and dignity may well be anathema. In human communities great disproportions of power may lead to efficiency, to "increased energy flow" and complexity, as in the slave economy in the old American South (or in the system of migratory labour in our own country); but such a community may also be said to be unjust. Such a term could hardly be used in terms of the plant community. Could the tall pines by "hogging" the major portion of the sunlight, be said to be perpetrating an injustice on the ferns below?

Again, while it may be desirable in plant communities to "manage" an equilibrium, nothing equivalent to democracy could ever be said to take place - for democracy is a self-conscious act. No plant community could ever be said to have worked out a constitution so as to prevent tyranny,

to work towards a balance of powers so as to promote peace, or to work out a system of incorporation so thatall its members might have dignity. In human communities, unlike plant communities, such political devices could never emerge unself-consciously; in short, humans are, unlike plants, political creatures.

E: REVIEWING THE POSITIVE ASPECTS OF THE THREE CASES

However fanciful the analogies may seem to us, they do have metaphoric value. Reissman (1964:93) bears witness to this in the opening words of his critical chapter: "Human ecologists, by the productivity of their research and by the caliber of their theoretical essays, have contributed much to our understanding of the city. In spite of its errors, ecology still is the closest we have come to a systematic theory of the city. So potent and so pervasive was the ecological point of view that it is fair to say that urban sociology in America really began with the ecologists."

Three positive aspects might be enumberated as follows:
(a) It aided Park and his fellow C.H.E.s to articulate their ideas about the city in which they lived. However clumsy the articulation it marked an essential beginning point.

(b) The ecological framework was not only popular, but it provided the vehicle for objective thinking - or at least the desire or goal of thinking objectively. The notion that there were basic underlying laws which needed only to be discovered leant an enthusiasm to their strivings. Another positive aspect of this approach was the determination not to lapse into mere moralism.

(c) The ecological framework provided a context within which research workers from many diverse backgrounds could work and share points of view. It provided, in otherwords, a language of discourse.

F: ISSUES AND CONCLUSION

The above discussion forms the material from which a number of issues are identified. In defining the issues and referring in summary fashion to the above discussion, some additional comment is made. The numerical order follows on from the previous chapter.

9. SEMNOTISM[1] (OR SERIOUSNESS) See pages 49,52,61.

There are a number of indications that Park as a scientist needed to have, not only the ability to excogitate concepts and to think systematically, but also the ability to be highly reflexive about his thinking, so that where the system lost touch with reality it could be broken down and built up again on a surer foundation. Thus Coser (1971:357) explains that Park was included among the masters because he was a systematic thinker - and yet quotes Everett Hughes' estimation that "[Park] had no desire to form a system." System building for its own sake was not Park's goal. Rather we are presented with a man who in constant dialogue with his students created concepts for that particular job: "There are often very considerable differences between early and late formulations, which can be accounted for by the fact that Park rarely set out deliberately to write a theoretical essay. It was rather his custom to think about a conceptual issue in terms of concrete research problems raised by his students in those long sessions when he plotted out their areas of research and helped them devise the theoretical tools they needed for accomplishing their task." (Coser,1971:382). We are presented here with a dynamic figure always

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(1) Semnotism. For the sake of consistency an attempt was made to discover an appropriate word ending in -ism designating the trait serious. There are a number of synonums - solemnity, grave, earnestness - none of which lent themselves to this usage. The word Semnotism was derived from the Greek adjective semnos, which means august, venerable honourable, reputable, grave, serious, dignified. The noun, semnotēs, means majesty, gravity, dignity. Semnotism as used here denotes an attitude, or behavioural trait, or set of behavioural traits described by the words serious, grave, solemn, dignified. A biblical example in which semnos is used is as follows: "Deacons in like manner must be grave, not double-tongued, not given to much wine, not greedy of filthy lucre." (I Tim.3:8).
In establishing this lack in the English language I wish to thank especially the Rev. I.H. Eve. Thanks also to him, and to Mrs. H. Batson for assuring me that there was no such word (semnotism) in the English language.

reaching out to grasp new concepts and "ever open to grasp novel experience."

Again, we are told of a typical reaction of Park's, - in the face of a concept which in his opinion did not sift the significant from the insignificant - was to proclaim that it was "not worth a damn." An important part of the scientist's work consists also in knocking down a system of thought in which the situation it sought to explain was explained away.

Furthermore, we are told how impressed Park had been by an essay William James once read to his class "On a Certain Blindness in Human Beings." James we are told spoke of a "personal secret" that makes life boring to one person and full of zest to another. As Park saw it: "What sociologists most need to know is what goes on behind the faces of men, what it is that makes life for each of us either dull or thrilling." (Quoted in Coser,1971:368).

Despite this high value placed on reflexiveness it would seem, as Shils (cf.p.8) has pointed out, that Park shared a certain blindness with his contemporaries, as far as Darwinism is concerned - nowhere is this more evident than in the seriousness with which the arguments by analogy were developed. It is not merely in the degree of elaboration in which the argument was pursued but in the uncritical belief that it was via this process that truth was to be found - to the point where the assertion of the argument was itself a denial of the truth. In this respect Reissman's (1964:113) observation that "Park's own denial, in a 1939 review of Alihan's critical book, Social Ecology, that he and the other ecologists were even attempting to construct a theory" as being "tragic" deserves a comment. What was not tragic in this denial was the assertion that their attempt at theory construction was never meant to be final - possibly the tragic element lay in the non-recognition of those moments of "blindness" in which it was imagined that "explanation" had been achieved.

10. PESSIMISM See pages 57-58,67-68,75-76

Chamber's Dictionary (1966:811) defines this as "the doctrine that the world is bad rather than good: a temper of mind that looks on the dark side of things." Certainly, Park's view of the city was not

one of total darkness, for there was a value shared by all the C.H.E.s in the freedom gained by the individual in the city. Yet the stress on the disruptive aspect is noted as characteristic. As suggested the key attraction in the linkage of the boll weevil to the history of South Africa lies in the catastrophic elements. Whether this served to promote understanding of the social disruptions in Chicago may be queried. A possible negative effect would be the reinforcing of a pessimistic view of things. This is suggested in the raising of the particular sequences of conflicts in South Africa to a universal level.

In the elaboration of the natural history of the newspaper a defeatist note is struck; but the outlook is not purely negative. The Darwinian commitment led Park to search for new forms, but also led him to adopt a passive stance in terms of the emergence of these forms which were seen to arise out of the ecological forces automatically. The phrase "so far but no further" is suggested as descriptive of this stance.

What is of interest here is the explicit repudiation of moralism (cf. Turner;1967:xvii). It would seem that gains in one direction (thinking in objective terms) were offset by losses in another. The necessity of "moralizing" and the taking of active steps in reforming the present are not necessarily two separate activities.

11. REDUCTIONISM OR OVERSIMPLIFICATION. See pages 50,56-57,59-60,72-73,79-80. If it is legitimate, for the sake of argument, to treat one's concepts, and the objects they identify as real (see discussion in Realism and Reification, Issue 2, p.41) then it is also part of the scientist's task to simplify. Theodorson and Theodorson (1970:342) do tell us though, so far as the fallacy of reification is concerned, that "The source of the error lies in the fact that in analysis it is necessary to simplify the complex phenomena of the real world." Setting aside the problem of what is meant by "the complex phenomena of the real world," the question to be discussed here is when does simplification, a legitimate scientific activity, become "oversimplification" - or when does this activity become fallaciousness?

Hollingshead (1947;1961:110) is surely correct when is speaking of "oversimplified abstraction" he speaks of the selecting of an assumption

and elevating it "into a universal, all-pervading arbiter." Martindale (1958:29) in a similar fashion complains of the "unnecessary 'primitivism'" of C.H.E.s. crucial concepts. Elaborating on this he says: "The difficulty was that it [civic social life] could not be sufficiently differentiated in those terms. They could account as easily for rural life as for city life. They could apply to social life in the past or the present. They could apply to non-human animal life as well as to man's life; or to plant life as well as to animal life." Reissman (1964:98), on the other hand spells out why in terms of human nature the ecological concept is an oversimplification: "Questions of purpose, motivation or human will could, in a sense, be set aside," yet (1964:109) it was "the facts of culture and human volition [that] transformed man's relationship to his environment." Such a strategy was suspect: "The ecologists wanted to find a scientific excuse to avoid the obstacle of studying the complexity of culture. Park's contention that cultural forces find their way into the more primitive ecological level may be true, but the relationship was too muddy to be understood."(Ibid).

What is objected to above is not mere simplification, for this is an inherent property of all concepts, but the absolutist reference in Hollingshead for example, or the implications of exhaustiveness of explanation in Martindale and Reissman. Nottridge (1972:29) has the opinion that "The analogy was too tempting to resist." It is not that concepts or arguments should not be "tempting" or "tantalizing" (cf. Reissman,1964:95) - indeed scientists are legitimately and desirably moved by such, but an unreserved commitment, or an overwhelmed intellect must needs be challenged in the academic setting.

12. ANTHROPOMORPHISM. See pages 76-80.
This is what Park (1923;1952:104) identifies "as the 'pathetic fallacy', the mistake of attributing...to physical nature and to things alive and dead, the sentiments and the motives which they inspire in him." Theodorson and Theodorson (1970:14) more simply defined anthropomorphism as "The attribution of human characteristics to that which is not human."

Anthropomorphism it is evident is a special type of fallacious argument by analogy. In a sense anthropomorphism arises out of the conditions

of human knowledge - all arguments originate from man and from their experience (this statement assumes that human knowledge originates in sense experience) of the world. "Man is the measure of all things." It is easy to see how this conditioning can lead to the assumption that man occupies, in the universe of his experience, a place of central importance.

In as much as Darwinism showed that man could be no exception to the rule that different species had arisen by natural evolutionary development the place of man's position as central in the natural order was questioned. On this basis Darwin argued that there was only a quantitative difference between man and beast both physically and psychically. "There is a far greater gulf, he maintains, between the mental capacities of one of the lowest vertebrate animals (the eel or river-lamprey) and those of the highest ape, than between the intellectual endowment of the ape and man. And he points out how difficult it is to draw a line between mere instinct and reason proper. The fact that animals can learn by experience suffices to show that we cannot altogether deny them reason." (Höffding,1900:446). Here we have the original justification for collapsing the gulf between the human and the non-human; A discussion of this argument need not be repeated here (cf. p.24). What we wish to draw attention to is the fact that Park was much taken with Darwinism and the notion that much could be gained from a study of plants and animals in the understanding of human behaviour (cf.p.65 etc.).

The chief difficulties with this assumption are:
(a) the tendency to simplify human nature, and to dismiss the cultural complexities within which man operates (cf.p.70f.).
(b) the tendency to attribute human characteristics to plant and animal actions (cf.p.73-80).

It is in terms of this latter of which Gettys accuses Park of "crude anthropomorphism." It is necessary to point out that there is in itself nothing wrong with an anthropomorphic argument provided due recognition is given to the nature of the argument when it is used. Inasmuch as Park did not clarify his usage of key terms such as "community" and "social" and the various senses in which they were used - or confused (cf.p.77) - Gettys criticism is correct.

13. DETERMINISM. See pages 55-57,73-75.

Bell and Newby (1971:92-93) offer the following summary of C.H.E. theory: "Here is a central paradox in the formulations of the Chicago school: they stress the freedom that results from living in large, dense, socially hetrogeneous and anonymous cities...and yet also posit a rather narrow determinism that is too crude for geographers let alone sociologists. They most certainly relate types of social behaviour in communities to a precise and specific ecology..."

Determinism Theodorson and Theodorson (1970:110) tell us is "The theory or doctrine that all human behavior is determined by antecedent conditions and events. Determinism is based upon the conception of cause and effect. All events, including all human actions, are seen as the result of a preceding cause or causes. Since effect invariably follows the cause, all the events of nature, including those involving man, are an invariable series of consequences, each resulting from the preceding and inevitably leading to the following. Man's behavior is determined by the events of the past which resulted in his biological heredity and social and cultural environment."

What should be observed, both in Bell and Newby's statement above, and the Reissman statement (cf. p74-75) is that it is not determinism which is itself as such attacked but rather a specific type of determinism, in the one case a "narrow" type, and in the other a "biological" type. Generally speaking, from the sociological point of view, a purely biological determinism is regarded as narrow.

A general problem with any deterministic theory would arise where claims to exhaustiveness in explanation are made.

In a purely biological determinism for instance the assumption is that the biological basis for conditioning the behaviour of human beings is exhaustively fathomed. As we have seen (p.73) it is precisely in the ability to specify the biological aspect that the chief difficulty lies.

This is the first difficulty with a biological determinism. The second arises in a stage beyond this - and that lies in the assumption that biological factors should be given a priority in explanatory value.

There is no causal reason why preference should be given to biological factors (cf.p.55), though there is no objection, in principle, to the conceptual basis upon which such an argument proceeds.

The only legitimate objection lies in any claims to exhaustiveness or absoluteness in explanation. A socio-cultural determinism would possibly be preferred by a sociologist, though here again any claim to exhaustiveness in explanatory value must needs be challenged.

CHAPTER FOUR

THE SOCIO-CULTURAL CONCEPT : ARGUMENT BY DICHOTOMY

A) Introduction.
B) Park's Reaction to Mannheim's Challenge.
C) Wirth's Reaction to Mannheim's Challenge.
D) Two Comments.
E) Reviewing the Dichotomies.
F) Issues and Conclusion.

A: INTRODUCTION

a) THE DICHOTOMY.

Gettys (1940;1961:99), in a rather scathing article has provided a fairly extensive catalogue of the dichotomies employed in C.H.E.s writings:

> In an apparent attempt to effect some sort of reconciliation between man, the animal, and man as a human being and the possessor of culture, the "human" ecologists adopted a familiar device, namely, the dichotomy. Dichotomizing is not unique, of course, with the biologists and the ecologists; it is a common affliction of the social sciences. Illustrative of the dichotomies employed extensively by the ecologists [i.e. the C.H.E.s] are those of "community" and "society," "individual" and "person," "natural" and "cultural," "biotic" and "social," "ecological order" and "social order," "ecological (competitive) interaction" and "social interaction."

Let us begin by defining what we mean by "the dichotomy." This we define as an argument which proceeds by drawing a polar distinction between two points of reference regarded as antithetical or mutually exclusive. Whether or not "dichotomizing" can legitimately be described as an "affliction" is a matter of debate. As a technique in logical thinking it is neither good nor bad; it has been used fruitfully in the past. The manner in which it has been employed in a particular case though needs to be weighed. Gettys' statement is surely not against the usage of the technique itself - were this the case the argument that binary distinctions are too simple for the analysis of complex phenomena might have been pertinent, but this is not argued.

However, when he argues that the usage of the dichotomy was made in an "apparent attempt to effect some sort of reconciliation between man, the animal, and man, as a human being and the possessor of culture" (my emphasis) it would seem that the criticism is directed against the misuse of the technique of dichotomizing. While some of the misuses (viz. looseness in usage of terminology; reductionism) of the dichotomous classification are pointed out this remains a secondary concern of this chapter. It is a necessary one, however, and important to our more fundamental interest: reaction to the Mannheimian challenge.

b) A COMMENT ABOUT OUR ANALYSIS OF DICHOTOMIES.

(i) The major point : Mannheim. The discussion does not pretend to be exhaustive - indeed such an undertaking would be superfluous, for Alihan has already performed this service. Hatt's (1946;1961:107-108) remark is pertinent:

> The "orthodox" ecologists, by reification, set for themselves the task of delimiting human interaction into levels that are mutually exclusive; traditionally, community and society, and the symbiotic and the social. This series of distinctions was convincingly demolished by Alihan's work...It should be unnecessary here after Alihan's careful work to point out the difficulties inherent in this dichotomy.

Rather what we are interested in doing here is to present only those parts of the argument, and the criticism, insofar as they bear upon our major point, which is that the third and final stage, is marked by a reaction to Mannheim's challenge to a greater self-reflection.

(ii) The relation of the third to the previous two "stages".

The previous two chapters mark two definite stages in the development of Classical Human Ecology (cf. Turner,1967:xxvi). So far as beginnings are concerned definite dates can be fixed to their entrance on to the scene. Thus the 1915 "bench mark" essay of Park's marks the first stage in which the "natural area" as a spatial and geographic concept was applied to the city. Important related concepts were distribution and mobility. Following this, in the 1921 "magnum opus", the "green bible" by Park and Burgess marks the second stage in which ecological concepts (particularly prominent were competition and symbiosis) were used in the further elucidation of the urban community. We argue that a third stage in which attention was given to the problems of a bifocal approach was reached in the latter half of the 1930's.

This arose by reason of the desire to attribute to the socio-cultural half of the dichotomy a greater autonomy. The 1939 article, "Symbiosis and Socialization" by Park is pointed to as marking this stage, together with Wirth's famous 1938 article, "Urbanism as a Way of Life." The important 1936 paper "Human Ecology" by Park ends with a section titled: "Symbiosis and Society" and we discern here the beginnings of this last stage.

It must again be pointed out that a neat dividing line between the three stages should not be looked for - in all there is not only overlapping but also an interdependency and interweaving of concepts. The third stage is possibly more dependent on the previous two stages for its existence. And references to the argument by dichotomy noted earlier in the discussion can now be usefully recalled. First, in Chapter Two it was noted (pp.29-30) in dealing with the Zonal concept that a Residual category arose into which cultural elements were relegated.(1) Again, in dealing with the Natural Area concept as expounded by Zorbaugh, it was noted (pp.34-36) that despite the initial usage of ecological concepts, socio-cultural elements in fact enjoyed the focus of attention. Second, in Chapter Three, it will be recalled that an ecological line of argument was pursued as opposed to a socio-cultural one (p62). It was pointed out that this division was based upon a dichotomous line drawn by Park between the four social processes, competition being singled out as ecological while the other three were regarded as being influenced culturally, that is, at the human level. In other words what should be evident is that in the application of either a more mathematical concept, as in the case of the Natural Area concept, or in the application of ecological concept, a line of demarcation is made between what is specified by that concept and the residue. In the case of human behaviour the "residue" was difficult, if not impossible to dispose of, for in it was contained that which more particularly distinguished the nature of man. Given the sociological interest in human behaviour (and an ecological committment) a bifocal approach was bound to develop.

While this third stage is heavily dependent upon the previous two stages,

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(1) Not only cultural elements in this case.

there is an extraneous factor which gives it a character of its own, viz. the reaction to Mannheim. In this way all three stages then can be seen as being growth points in theory development, the stimulation in each case derivingfrom outside the discipline: Geography, Ecology (or Biology) and last of all, "Sociology of Knowledge."

(ii) The nature of Mannheim's challenge.

Karl Mannheim's Ideology and Utopia, 1936, was edited and translated by Louis Wirth and Edward Shils. Louis Wirth was possibly Park's best pupil. The challenge, as we see it, is spelled out by Wirth in the introductory editorial to Mannheim's work. The long editorial or "Preface" ends with a direct reference to "intellectuals":

> Finally, and in all of its aspects, the sociology of knowledge is concerned with the persons who are the bearers of intellectual activity, namely the intellectuals. In every society there are individuals whose special function it is to accumulate, preserve, reformulate, and disseminate the intellectual heritage of the group. The composition of this group, their social derivation and the method by which they are recruited, their organization, their class affiliation, the rewards and prestige they receive, their participation in other spheres of social life, constitute some of the more crucial questions to which the sociology of knowledge seeks answers.
> One of the primary obligations of the sociology of knowledge consists, therefore, in a systematic analysis of the institutional organization within the framework of which intellectual activity is carried on. (Reiss (ed),1964:145)

In other words Mannheim, as Coser (1971:429) tell us, "was concerned in all phases of his work with considering ideas in relation to structures in which they are variously embedded...he stressed that thinking was an activity that must be related to other social activity within a structural frame."

In other words it was a challenge to trace out the social origins in which the C.H.E.s came to exist as a "school," the social origins of the leading thinkers, the values they used in selecting models of explanation, the social origins of their students, the particular position of sociology relative to the other departments in the university, the position of the department of Sociology in Chicago relative to the community in general, etc.

As we noted in dealing with the semnotic (Issue 9, p81) aspect of Park's character, there were certain values which were simply assumed as basic unquestionable "facts." The point which Mannheim challenges is the

the idea that "facts," or the models of explanation in terms of which the facts are derived, can exist, without a prior social history. In other words "truth" is moulded by the value system in terms of which models of explanation are chosen or questions asked and therefore answers received. While this challenge was not taken up directly some response to Mannheim was needed. The response was, as we shall see, to expand the socio-cultural aspect, as against the ecological, and hence the focus upon the dichotomy in this final stage of C.H.E.

B: PARK'S REACTION TO MANNHEIM'S CHALLENGE.

a) FOCUS ON "SYMBIOSIS AND SOCIALIZATION", 1939.

We refer here, more specifically, though not exclusively, to the 1939 paper mentioned above in which Mannheim's contribution to sociology is discussed by Park. Basically, Park is seen here to react by

reaffirming and defending his basic assumptions;

extending, within the ecological framework, more attention to the "social" (societal) or "socio-cultural," "cultural" or "moral" (all taken as equivalent terms as opposed to the "ecological," "sub-social," "communal") aspect.

b) REAFFIRMING THE BASIC ASSUMPTIONS.

Park took care to prepare his ground carefully. Three closely related points needed to be made before Mannheim could be safely brought on to the stage:

(i) A dichotomy between the ecological and cultural aspects had to be reaffirmed. Thus the article is introduced by a brief rehearsal of the "point of view of human ecology." It opens (1939;1952:240) with a firm statement in the belief that to the "disinterested observer" human society presents itself in two divergent aspects. While there may be many divergent aspects it is obvious that at least one aspect, the ecological, could be singled out. On this basis the dichotomy is used to sort out what is from what is not: "Society is obviously a collection of individuals living together, like plants and animals within the limits of a common habitat, and it is, of course, something more" (i.e. my emphasised section = what is not). This line of argument goes back to the very beginning for on a number of occasions Park

disarmed his readers by saying that he began by viewing things from the "ordinary" (1915;1925:2) point of view of the "casual observer" (1928;1952:100). It is not suggested here that Park was a sly character, trying to deceive his readers by a clever trick of logic, for he was, on the contrary, a man of robust honesty (cf. Coser). But these remarks do serve to point out Park's unquestioned starting point: the externalities of the urban environment. It was upon this basis that in his earliest (1915;1925:1) essay a neat line was drawn between the city as "a state of mind, a body of customs and traditions, and of the organized attitudes and sentiments that inhere in these customs" and the non-human or physical aspects of the city, which seen "from the point of view of its geography," included, "transportation and communication, tramways, and telephones, newspapers and advertizing, steel construction and elevators...", and his last essay on the subject reflected exactly the same approach.

(ii) The primacy of the ecological aspect needed to be asserted. This is done in a rather roundabout way. Sumner (1939;1952:246-247) is referred to as maintaining that "property, marriage, and religion are still almost entirely in the mores." With this in mind it is argued that "implicit in every institution is a concept and a philosophy" which like an iceberg "remain[s] more or less completely submerged in the 'collective unconscious," whatever that is." (My emphasis). Furthermore, the sentiments beneath the surface of every institution are spoken of in terms of a "philosophy" or "what might be described as the institution's apologia pro vita sua." This, as he saw it, "may take the form of a rationalization or justification for the institution's existence." Having reduced the "mores," "sentiments," etc. underpining institutions to "rationalizations" he was on familiar ground, for he was able to argue that "mankind has never been completely rational in either its behavior or its thinking as was once supposed." In other words something more important than the "rational" element must be taken into consideration in explaining human behaviour. In this way the ecological aspect is safeguarded.

(iii) The corollary, of the above, the dependent or lesser role of the cultural aspect needed to be reiterated: This point is made simultaneously with the above - for in the distinction between rational

and non-rational behaviour the more "traditional" dichotomous line between conscious and non-conscious behaviour is affirmed. Institutions and collective behaviour thus are held to arise from "movements" which in turn originate in the realm of the non-conscious: "the pressure of some necessity - a flood, a famine, a war - anything which makes collective action urgent." This, of course, is where the sheer struggle for existence, or "competition" is given supreme potency. The rational actions are those which emerge immediately above this level, (cf.1939;1952:258) i.e. the economic and political sectors: "Sociology...is primarily concerned with the nature and natural history of institutions; with the processes by which institutions develop and eventually evolve the specific and stable forms in which we know them. But customary cultural and moral relations are notoriously dependent on, and responsive to, political, economic, and, ultimately, those more elementary associations brought about by the sheer struggle for existence." (1939;1952:244)(my emphasis).

Having set the background scenery in position Mannheim can be brought on to the stage. Park is now ready to cross swords with him over the question of the origin of social institutions. All that is required is that he should be slotted-in to the cultural half (or the social aspect i.e. as opposed to the ecological) of the dichotomy for him to remain quite harmless. And this is done with the opening sentence (1939;1952:247), in which he is represented as "one of the recent extensions of the realm of the social..." Having done this Park can generously present the essence of his position as follows: "'The principle thesis of a sociology of knowledge is,' as Mannheim has stated it, 'that there are modes of thought which cannot be adequately understood as long as their social origins remain obscured.' This means that...the ideology of a society or of a social group is, like its customs and its folkways, an integral part of its social structure." Park could concede that the cultural (social) aspect was "integral," for this in no way posed a threat to the attribution of primacy to an ecological interpretation. Certainly the social/cultural aspect was "integral" but this was not to say it was fundamental.

c) EXTENDING, WITHIN THE ECOLOGICAL FRAMEWORK, MORE ATTENTION TO THE "SOCIAL" OR "SOCIO-CULTURAL" OR "MORAL" ASPECT.

(i) The bulk of the article is, as one would expect from a defensive position, taken up with the question of attributing primacy to the ecological while trying to concede as much as possible to the social. This is what Hollingshead (1947;1961:109) terms Park's "philosophical" attempt to connect the "ecological" and the "social" by "his version of the timeworn concept of a hierarchy of orders - the ecological, the economic, the political, and the moral." While the double bibe against the hierarchy-of-orders concept as being "philosophical" and "timeworn" may be disregarded as irrelevant, the point that Park could attribute with equinimity primacy to the ecological order, and relegate the social/cultural order to an epiphenomenological status as a "superstructure" may be taken. Reissman's (1964:102) comment is more to the point. He points out that the "recognition" on Park's part that there was a relationship between the said orders was not sufficient in itself: "The relationship had to be specified, but that was really as difficult as studying the cultural level itself."

It should come as not too much of a surprise when even in the final section of the 1939 paper, titled "Socialization," Park is still concerned with the relationship between the various levels (or orders) rather than with a purely socio-cultural or institutional analysis. While there is a gesture of equivalence in the statement (1939:258) that "socialization and social organization seem at any rate to be brought about by the co-operation of two fundamental types of interaction," a point Turner (1967:xxiv) emphasized, nevertheless (a) it is the ecological which is seen as initiating the "new type of solidarity"; (b) this solidarity is seen emerging in a dependent fashion upon ecological forces once a "relatively stable equilibrium" is achieved in both animal and human societies. In human societies the new type of solidarity is "more intimate" because it is based on "communication, consensus, and custom."

It remains to be pointed out that the attention given to socialization is in fact very slight. This can be located in the penultimate paragraph, potently in one sentence: "The process of individuation ordinarily continues with his participation in an ever wider circle of political

and economic association." This is, of course, an extremely vague reference compared with that which Mannheim's challenge might have stimulated.

(ii) It should be remembered that the point over which Park takes up the cudgels with Mannheim is in the accounting for the emergence of social institutions. He was convinced that one must resort in final analysis to the ecological processes as fundamental. It would be tedious to examine in detail how Park proceeds to do this. Suffice it to say that the elaborate milling-herd analogy which he resorts to follows the basic pattern as elaborated in Chapter Three (cf. The Case of the Boll Weevil and the Voortrekkers). The same impersonal an inexorable laws are appealed to - the sheer visibility and destructiveness implicit in the (cattle) stampede is overwhelming.

(iii) Four points need to be made about the milling-herd analogy.
(a) The sheer forcefulness of the metaphor is surely a pointed polemic against the more "ethereal" concerns of Mannheim.
(b) The time factor is a crucial element in the argument (cf.p.56 above; also for earlier examples cf. Burgess,1925:148; Park,1915;1925:6) for it provides a loophole for any questioning of the reality of the potentiality and non-potentiality, of the ecological and cultural forces respectively. Should there, for instance, be a case where boundaries between neighbourhoods were hazy or unsettled, or which did not conform to ecological theory, the cause for the "abberation" could always be laid at the door of "time." Thus in the conclusion to the milling herd analogy Park (1939;1952:258) can end by saying: "Institutions, however, seem to be, finally, the product of the type of dialectical or rational communication which is the peculiar characteristic of human beings."(my emphasis). The qualifying phrase "seem to be" possibly indicates the lack of definiteness appropriate in the face of the more ephemeral social aspects.
(c) Another point already made but which could bear with repeating is the fact that the reality of the ecological variables rests to a large extent on their visibility - the "look and see" appeal of the "ordinary" man. The appeal is to a criterion of testibility supposedly employed in the physical and biological sciences. Only what is visible is real - or really real. The idea that potency

could be attributed to non-visible phenomena, and that a scientifically disciplined inquiry could be valid where the testing was indirect, as must needs be in the case of values sentiments and ideologies hidden below the surface of things, was not easily countenanced. But the call to do this, and to move away from a narrowing empiricism, was a part of the Mannheimian challenge as spelled out by Wirth: "some aspects of all social events...can be viewed externally as if they were things...this should not lead to the inference that only those manifestations of social life which find expression in material things are real. It would be a very narrow conception of social science to limit it to those concrete things which are externally perceivable and measureable." (1964:134) (my emphasis). So far as Park was concerned, however, the bite to this challenge did not make an impression, for as he had stated earlier (1921;1969/1970:15): "there is no indication that science has begun to exhaust the sources or significance of concrete experience"; the field was wide open!

The real question of Mannheim's challenge was entirely missed. The question was not merely, as Martindale (in Weber,1958:29) observed with appropriate disapproval, that the C.H.E.s venture "started analysis off on the wrong track by orienting it to the geo-physical aspects of the city rather than to its social life," or as Alihan (1938:6) observed that having fixed their attention on the "salient manifestations, such as the growth of the cities, the spread of industry, the extension of railways and highways...etc...their universe of discourse became limited to externalities, and the interpretation of social life hinged upon its most concrete aspects," but the further question implicit in the appeal to a common sense empiricism, viz. the assumption of a rigid separation between the observer and the thing observed. In the last chapter we mentioned as an example of a forced analogy Park's comparison between the zoologist and the social scientist (cf. Chapter Three, p.51). We pointed out that the sociologist must needs relate to his "object" of study in a different manner to that of the zoologist in relation to his object of study. The point is that unlike the zoologist, the sociologist's point of view enters irrevocably into the observation he makes - the very process of observation affects, or is liable to affect, what is being observed (as well as the observer). It is not, as was presupposed in the eighteenth and nineteenth centuries, merely a matter of the impact of data upon

a passive consciousness. Mannheim's sociology of knowledge is a direct challenge to this. Far from setting the subject and object sharply apart, the sociologist must needs acquire knowledge by being involved in an interrelationship in which both the subject and the object are involved. The recognition of the processes of interrelation and interaction between "facts" and values means the foregoing of absolute certainty in knowledge or the claim to be in a position to settle all disputed issues once and for all.(1)

In short, the "look and see" method of testibility which Park assumed would appeal to the "ordinary" man was not only narrowing, as Wirth pointed out, for only the simplest kind of statements about reality can be absolutely true for all time, but also basically, especially so far as social science is concerned, misleading.

(d) The point that the C.H.E.s lived through a period of rapid social change needs to be rehearsed. It is against the background of deep impressions of the unco-ordinatedness of the events of the day that the milling-herd analogy is to be understood. Its most notable feature, milling, points to the underlying concern of Park - the question of social control. The milling phenomenon which invariably precedes a stampede was likened to the ceremonial war dance of "primitive man" which invariably mobilizes the fighting forces to action: "By reviving the memories of an earlier war, it mobilizes the warriors for a new one" (1969/1970:371).. Unlike cattle though who having been triggered off by their "primitive form" of the dance or ceremony, humans react in collective behaviour or by forming institutions. Park's voicing of surprise ("The milling herd is in so many respects like the organized crowd...that one wonders that it does not, as in the case of a mob, express its excitement in a collective act" 1939,1952:256) at the cattle, having performed their "ritual ceremony" of milling, not producing institutionalized acts, would seem to indicate, possibly, a disappointment in not being able to apply the analogy as far as he would have liked.

The point is that the formation of institutions did not happen automatically - for, as he had pointed out (1921;1969/1970:34) earlier,

(1) I am indebted to E.H. Carr, What is History? 1961 for some of the insights used in this paragraph.

"men in a state of panic...although equally under the influence of the mass excitement, act not corporately but individually, each individual wildly seeking to save his own skin. Men in a state of panic have like purposes but no common purpose." Social controls were necessary if the fierce, individualistic, and disorganized forces (cf. Chapter Three, p. 57) were to be brought into any coherence.

It may be recalled that a prime motivation in Park's life (cf. Burgess, 1964;1967:3; Chapter One, p. 11) was a concern with exposing and rectifying public corruption or graft.(1) Martindale (1958:42-44) puts forward the view that the American commitment to democratic principles, applied as they were to city governments (an innovation in terms of European history), led to the "tolerance of almost unbelievable quantities of graft." Park (1969/1970:186) himself noted in 1921 that "'unfair competition' is an expression that is heard at the present time with increasing frequency."

Here we must point out an internal contradiction in Park's thinking: This concern with unrestrained individualistic assertion focused upon competition, particularly in the economic sector. As we have seen this lined up with an explicit ecological interest. This in turn led in a direction in which competition was seen to give rise to a symbiosis, a differentiated structure and interacting organization which automatically produced an equilibrium or a "diminished competition" or peace itself. (Cf. Chapter Three, p. 71). The fact that Park could argue a positive outcome in the face of "heartless competition" is some testimony to his objectivity, and to his ideological commitment. (Cf. Issue 9 p.81).

However, no doubt under pressure from the point of view of the ordinary man (Martindale, Ibid : "the popular attitude toward the city in America was marked by the serious concern with current problems of urban corruption") Park resorted to the other half of the dichotomy, the socio-cultural aspect. Reaction to the graft - as opposed to the "heartless competition" - led to the development of the notion of social control. Social control was linked to the main purpose of

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(1) Graft is an American term signifying profit made illicitly by corrupt means, especially in public life.

society[1] which was corporate action, i.e. as opposed to unrestrained individual competitive action: "One might, perhaps, say that the function of society was everywhere to restrict competition and by so doing bring about a more effective co-operation of the organic units of which society was composed (1936;1952:157). That this general statement in fact arose from a more particular city experience can be discerned from the following statement: "The social problem is fundamentally a city problem...of achieving in the freedom of the city a social order and a social control equivalent to that which grew up naturally in the family, the clan, and the tribe" (1929;1952:74). The point was that for Park the "freedom in the city" had to be controlled, and the controls were provided by "culture" i.e. "this freedom of the individual to compete is restricted by conventions, understandings, and law" (1936;1952:157).

The question is how can "heartless competition" on the one hand, following an ecological line or argument, lead to peace, stability and growth of structure (cf. Chapter Three, p. 71); and on the other hand following a cultural line of argument, be controlled or muted so as to promote corporate and co-operative action? It is necessary to know that the dichotomy drawn so far between the ecological and cultural orders was elaborated in two similar concepts, "community" and "society" respectively. A key distinguishing feature was "competition" which was often held to characterize "community." The point is that the C.H.E.s used this concept so inconsistently (cf. Alihan, 1938:29-40)[2] that Alihan (1938:36-37) can conclude in the following terms:

> Since human ecologists regard and treat competition as the central process in the ecological "organization," its comprehension is of utmost importance. The very validity of the distinction between

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(1) For purposes of clarification the concepts society, culture, control may be regarded as a set, as opposed to community, competition, freedom.

(2) The detail of the argument is not necessary to reproduce. The basic point is this: Park often identified biotic and economic competition (as we have seen in Chapter Three pp. 72f.). The basic question hinges around the impersonal, and unconsciousness aspect of economic competition. Alihan demonstrates at great length the inconsistencies in this assumption. It was difficult to hold consistently that economic competition was non-conscious.

> "community" and "society" and the delimitation of the scope of human ecology depend upon the definition of this process. It is evident, however, that the ecologists have not formed a full understanding of the concept of competition. They have not uniformly differentiated between biotic and economic competition, and they have not satisfactorily indicated the relation of the two processes either to "community" or to "society." What puts a particular difficulty in the path of the reader is the loose use of the term competition... *To* cite only one example, Park and Burgess state in the same text that (a) "competition among men...has been very largely converted into rivalry and conflict," or "competition has been restricted by custom, tradition, and law"; and (b) "the freedom which commerce sought and gained upon the principle of laissez faire has enormously extended the area of competition and in doing so has created a world-economy where previously there were only local markets." These two statements can only be reconciled if we assume that the term competition has a different meaning in each of the two contexts. (Alihan's emphasis).

Earlier, Alihan (1938:13), in a more summary fashion, had pointed out that "the economic organizations comprise the ecological 'no man's land' between 'community' and 'society,' so that they are at once part of the 'community,'[and] constituent parts of 'society'."

This discussion and conclusion serves to illustrate that again the "argument by dichotomy" broke down, this time by a looseness in terminology. A logical interpretation would be along the lines of the following formula: a basic requirement in the setting up and maintenance of any dichotomous classification is the observance of the "law of the excluded middle" which states that A is either B or not B. It is unnecessary after the long quotation from Alihan's book to spell this out in any further detail.

C: WIRTH'S REACTION TO THE CHALLENGE OF MANNHEIM

a) FOCUS ON "URBANISM AS A WAY OF LIFE", 1938.

While this paucity of institutional (socio-cultural) analysis is to be generally discerned in the C.H.E.'s writings[1] Louis Wirth's (1938) attempt deserves special mention.

Wirth's article has been described as the flower of Classical Human Ecology. A recent tribute to the merits of this article is to be found in Bell and Newby's (1971:91) comment that Louis Wirth was "the author of arguably the single most famous paper ever written in sociology." Without wishing to argue for or against the matter here, it is worth noting that what Wirth has to say in this article may be regarded in many respects as a summary of the C.H.E. position.

Thus the three key concepts, Size, Density and Heterogeneity may be seen to follow the conceptual stages outlined in the three chapters of this thesis. But it is not a mere summary, for not only is it a definite selection, but it is conceived, by and large, on a more generalized level. Furthermore, it may be seen to mark the beginnings of a new stage in the theoretical development of Human Ecology, what Reissman had dubbed Neo-Ecology (a development dating from the 1950's).[2]

b) WIRTH NOT ESSENTIALLY DIFFERENT FROM PARK.

The above remarks, however, should not be taken as indicative of any abrupt change. Wirth's position in fact is essentially the same as Park's

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(1) For general comments cf.: Alihan,1938,Dh.9; Martindale in Weber,1958: 28-30,39; Reissman,1964:109-110; Bell and Newby,1971:99. For references in which such a neglect may be discerned cf.: Park,1936;1952:230-231; McKenzie,1925:73; also 1926:35; Burgess,1925:53; Zorbaugh,1926:46; etc. The point is either mentioned or implied in Chapters 2 and 3 of this thesis. However, see also, despite this lack, the remarks made by Sirjamaki referred to on p.35 above.

(2) A consideration of the recent refinements of the basic C.H.E. position is beyond the scope of this thesis. Reissman (1964:111-121) interestingly enough regards the modern statements as having (a) withdrawn to defend a smaller area of Human Ecology, and/or (b) "simply rephrased" the C.H.E. position (with possibly more delicacy). In any event, "The criticisms that were once made are still valid today." For a summary treatment see Chapter 5, pp. 125-126.

in "Symbiosis and Socialization" just dealt with, excepting that (1) Wirth pointedly debunks the achievements of C.H.E. whereas Park, as we noted, takes up a rather defensive and "traditional" stance. Both Martindale (1958:41) and Reissman (1964:113-114) are of the opinion that in this article Wirth was attempting, not so much to make a new beginning, as to "correct the simple-minded physics of ecological theory," or, at least to be "more cautious...in keeping ecology in bounds"; (2) Wirth's attention to institutional analysis is greater in substance than in Park's.(1) Wirth's starting point helped here, for he emphatically declared that ecological theory (C.H.E.) was lacking in sociological orientation (cf. Martindale, 1958:38-39; Reissman,1964:139). The conscious aim of the article is as follows: "The central problem of the sociologist of the city is to discover the forms of social action and organization that typically emerge in relatively permanent, compact settlements of large numbers of heterogeneous individuals" (1938;1964:68).

c) THE FOLK-URBAN POLAR-TYPES MODEL.

The elaboration of an institutional analysis of the city was facilitated by adopting a Folk-Urban Polar-types model: "the city and the country may be regarded as two poles, in reference to one or the other of which all human settlements tend to arrange themselves" (1938;1964:62). Attention thus was drawn to different types of social structures and the contrast between them.

d) CONCLUSION.

Despite what has been said in favour of Wirth's article it must be noted that he followed the traditional reductionist solution in that size and density, (ecological variables) were seen as independent variables. True, heterogeneity is brought into the picture on the grounds that the other two variables could not wholly account for the socio-cultural variation adequately. Nevertheless, as Reissman (1964: 140) points out, "heterogeneity does not really qualify as an assumption as do size and density, inasmuch as it can itself be deduced as a consequence of the latter two."

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(1) The uniqueness lay in the seriousness with which Wirth elaborated the socio-cultural dimension within an ecological "framework of knowledge" (cf.1945:76). The Folk-Urban polarity was well known. Park (1923;1952:108) for instance, had noted "The culture of modern man is characteristically urban, as distinguished from the folk culture, which rests on personal relations and direct participation in the common life of the family, tribe, and the village community."

D: TWO COMMENTS.

a) AN AHISTORICAL STANDARD.

One of the important criticisms (cf. Mann,1965:4-5) with regard to this Folk-Urban device is that it tends to be employed in an ahistorical fashion. The result has been a rather romanticized version of a folk settlement in terms of which the modern city is seen as instable and disorganized. Bell and Newby (1971:100) state: "If sociologists approach the study of community with an ideal typical community in mind, it can but only be always disintegrating...It is not helpful to identify a particular way of life with a particular ecological space."

Apart from a connection between romanticism and pessimism which may be traced to the folk society concept, the idealized version of the folk society itself is subject to the influence of a particular social and cultural viewpoint. Unless this is recognized the very ahistoricism of the concept lends itself to a dogmaticism which we noted previously as connected with the positing of a belief in ahistorical ecological laws (Chapter Two, p.42). While credit must be given to Wirth for a richer base institutional analysis, it is only one step nearer to a fuller sociological analysis. With the positing of a static framework (the folk society) the challenge to analysing the genesis of new ideas and new syntheses in terms of which the society of the future would be organized is escaped.

b) AN INDIVIDUALIST RATHER THAN SOCIAL INTERPRETATION.

While the C.H.E.s cherished the positive aspects of city life - it contributed to human dignity in giving greater individual freedom, more interdependence, a greater tolerance for divergent ways of other persons or groups, etc. - at the same time there is very little idea that the mass of individual working men could really gain economic and social freedom. Wirth (1938;1964:73) comes nearest to this view when he notes that "Typically in the city, interests are made effective through representation...the voice of the representative is heard with a deference roughly proportional to the numbers for whom he speaks." However his remarks (Ibid:82) with regard to "organizations" being able to really serve the interests of the masses, are pessimistic. They are

subject to corruption and bossism: "Self-government either in the economic, or political, or the cultural realm is under these circumstances reduced to a mere figure of speech." In effect the C.H.E.s saw the mass of working men as poor, exploited, and at the mercy of the captains of commerce and industry and city politics. The only solution to the superordinate-subordinate relationship seemed to lie in controlling and curtailing the exploitative drives of those in power, for they in biotic-like fashion pressed their advantage to the utmost. True, it was in the city that "man was compelled to live by his wits" as Park put it, but this was conceived of chiefly at the individual level (cf. Park,1929;1952:74). The idea that the subordinate members of industrial society would unite and exert a counter pressure so as to gain a balance of power and thus a measure of greater freedom in the structures of commerce and industry, does not seem to have been considered as a historical possibility. On the contrary, Turner (1967:xiii) tells us, it is when "Park leaves the abstract treatment of social control to examine concrete problems" that he writes "bitterly" about man who seems to be "so ill-adapted...to the social order into which he is born" and to "the demands which society imposes" that his "recreations will very likely turn out to be some sort of vacation and escape from this same social order to which he has finally learned to accommodate." This is a very pessimistic view, that of an individualistic search for freedom only during vacation time. Such a view, however, should not be taken as typical. A more general C.H.E. response though was the demand for a redefinition of the electoral wards along "natural area" boundaries. This was undoubtedly a move to give more power to the working masses and to minority groups. While attention to divisions was not unimportant the real issue, the idea of the workers discovering a new identity and of exerting a counter-pressure was it seems, not seen.

This means that in fact there were two "social movements" afoot during this time which went unperceived.

First, it would seem that the C.H.E.s were unaware that they were part of a general reform movement which Dentler (1968:50) has dated as being alive during the period 1870 to 1935. Despite Park's anti-moralist stance (cf. p.12 and p. 44 above) the fact that he stressed

the need for social control in coping with unfair competition (cf.p.99) meant that he was part of a movement which led to the "depoliticalization" (Dentler Ibid) of city governments. One of the new forms which gets no mention at all, possibly because it occured in places beyond Chicago's boundaries, is the commission form of government (started in 1902 in Galveston, Texas). A more professionalized version of this was the City Management Plan (started in Dayton, Ohio in 1913). By 1932 Dentler (1968:51) tells us there were 800 cities using this new form of city management.

Second, following Warner (1963;1972:62f), the rise in the early decades of the century of the craft and apprenticeship unions which finally were superceded by large industrial unions "with tens and hundreds of thousands of workers throughout the country combining their strength to assert their interests against management." Far from seeking freedom only in vacation time on an individualistic basis, new corporate identities were evolved and the subordinate members of the industrial society mounted a successful counter-pressure to gain greater freedom within the structures of the commercial and industrial worlds. This movement which has been such a distinguishing landmark in American history is either passed over very lightly (Wirth) or not mentioned at all. Possibly, despite Warner's focus on a city, the national dimension to labour bargaining made possible by state democracy, was a critical feature, and a more localized vision would no doubt be more liable to pass it by.

In short, both Park's emphasis of ecological laws and Wirth's positing of an ideal folk society are both ahistorical. This led in each case to a passive analysis of society - the challenge of Mannheim was to the realization of a dynamic analytic model of analysis in which not only a mobile society may be measured, but in which the measuring framework itself is seen as being shaped constantly by the social and cultural environment. A new alertness is demanded, not only to what is happening "out there" but also to what effect one's own presuppositions are having upon one's vision.

E: REVIEWING THE DICHOTOMIES.

As Gettys (1940;1961:99) pointed out Park hoped to effect some sort of reconciliation between man, the animal, and man the human being, by means of the dichotomy.

The dilemma provoked by Mannheim consisted in acknowledging the socio-cultural component as independent of ecological laws. But if the ecological laws were sufficient in explanatory value was it not inevitable that the socio-cultural component would be immediately subsumed under these laws?

The dilemma can be pinpointed in the concept rationality. If the ecological laws are taken as having fundamental explanatory value, then they must be by definition, rational. A logical consequence of this is that cultural factors not subsumed under the ecological laws, because of their supposed independence, are, thus, irrational. On the other hand, if the socio-cultural rationalizations or ideologies are taken as "rational" (Park,1939;1952:258) then, reversing the argument, the ecological "laws" are irrational. A solution seemed to lie in trying to embrace both aspects in a larger theory - but it is at this point that Classical Human Ecology for various reasons fails to cope.

Mannheim's challenge was to break down the subject-object divide pre-supposed in the empiricism upon which this dichotomous thinking was based. However, the idea of questioning the explanatory value of ecological laws by exploring the subjective and social aspects of all cognition, including their own, seemed to be asking too much. The laws taken as absolutes (cf. p.96 above); besides these other realities, including the historical, paled in significance.

F: ISSUES AND CONCLUSION

The above discussion forms the material from which a number of issues are identified. In defining and referring in summary fashion to the above discussion, some additional comment is made. The numerical order follows on from the previous chapter.

14. ROMANTICISM See pages 100,103-104,106, Chapter 3,76.
A dictionary (Oxford, Pocket,1924;1946:708) definition of romanticism refers to the following terms: imagination, visionary, fantastic. Mann (1965:5) draws attention to what are often implicit value judgements in many writers on urban themes - these may be described briefly as "anti-urban," and "pro-rural." "By this we mean that in comparing village and city there is a glorification of rural life which at times is based purely on sentiment." Bell and Newby (1971:100) suggest that an important dimension to C.H.E. thinking lay in an anti-urbanist approach stimulated by the fact (or supposition) that they "were presiding over the total eclipse of some past rural community." It was in the light of a rather romantic view of the rural community (in which the past by its very remoteness became glamorous) that the urban world came to be estimated.

Both Park[1] (cf. Coser,1971:366) and Wirth (cf. Marvick in Reiss (ed), 1964:333) grew up in rural areas (cf. Stein,1960:15). Martindale (1958:36-38) points out the dependency of Park on Spengler who, it is suggested, recast Simmel's description of the city within a frame of agrarian mysticism. Interestingly, despite his village background, Wirth rejected this interpretation and returned to Simmel for a less idealistic viewpoint. The indication is that Park's view, because of his dependence upon Spengler (cf.1915;1925:1), is more romantic than Wirth's. Despite this estimation the very fact that Wirth took as one of his key points of reference, the folk society - not the rural village either of feudal or industrial society - a note of romanticism was introduced. The subsequent stress on segmented and predatory

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(1) Red Wing (the city in which Park grew up) is on the Mississippi River situated in a rich agricultural region, and is an important market for wheat. There is only one high school. In 1956 it had a population of 10,654.

relationships and the view of the city as unstable is all of a piece.

15. AHISTORICISM. See pages 104-106.
Theodorson and Theodorson (1970:187) describe historicism as a theoretical approach that emphasizes the importance of the historical context in the understanding of social and cultural phenomena. Ahistoricism therefore is taken here to indicate an approach which neglects the importance of the historical context in the understanding of social and cultural phenomena.

Bringing the charge of ahistoricism against Park must be done with extreme caution. It is necessary to pay tribute to his interest in "natural" histories. Not only did he stimulate such an interest in his students but, as Coser (1971:362-363) tells us, "The notion of 'natural history' conceived as a sequence of stages is central not only to Park's account of the rise of social movements but to many other of his analyses as well." However, there were a number of limiting features in Park's orientation and it is these which predominate: First, it was believed that ecological laws were the object of cognitive endeavour - and historical events as such were unimportant: "As far as sociology and history are concerned the differences may be summed up in a word. Both history and sociology are concerned with the life of man as man. History, however, seeks to reproduce and interpret concrete events as they actually occured in time and space. Sociology, on the otherhand, seeks to arrive at natural laws and generalizations in regard to human nature and society, irrespective of time and of place." (Park,1921;1969/1970,11).

Second, in line with the above point, we noted in Park's "natural history" of the newspaper (Chapter Three, pp.75-76) the adoption of a passive stance supposing, it seems, that new forms emerged automatically (Chapter Three, pp.69-70). There is a gulf in Park's thought between a holistic and individualistic interpretation of human behaviour which led to a pessimism in both counts (cf. Chapter Three,p.82; Chapter Four,p. 104). Third, the requirement that the research endeavours of their students be empirical, in keeping with the ecological approach meant that their work needed to be limited to the local scene (Chapter Two, p.36-38) The consequence was an intensive focus on the city of Chicago itself - the wider societal context being lost sight of (Chapter Two, p.19).

In the case of Wirth the ahistorical nature of the Folk-Urban framework lies in its static conception. Mann's (1956:4-5) analysis of the pitfalls implicit in this concept are referred to: "Such an argument, ignoring the time factor, must be suspect, since the writer is admitting by implication that a change has taken place in the village and we cannot be sure just where in time he is basing his statements." As we noted the ahistoricism of the folk (or village) concept gives rise to a romantic version in terms of which urban life is seen as problematic - or pathological[1] (cf. Turner, 1967:xvi).

16. CONSERVATISM. See pages 98-101, Chapter 3, 69-71.
Theodorson and Theodorson (1970:73) define conservatism as an "ideological orientation that opposes social change, especially change away from traditional cultural values and mores, and justifies its actions and values on the basis of the presumed accumulated wisdom of the past inherent in traditional forms."

Again, it is with caution that a charge of conservatism is brought against Park (and the C.H.E.s), and it must be emphasized that this judgement is made with qualification. As we have already mentioned (cf. Chapter Three, p.81) Park was an innovative thinker, and Coser (1971:372) draws an inspiring picture of him as "Perpetually curious and ever open to grasp/novel experience." Yet, if our reasoning in the above two issues and the discussion from which they are drawn, is correct, it follows that where an ahistorical folk society concept is used in weighing urban society, "traditional cultural values and mores" will be appealed to. We draw attention here to the strong reaction against graft and the view that social control was necessary in combating a rampant individualism in the competitive business

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(1) While a reference to an idealized version of folk society is more explicit in Wirth, it may be traced also in Park: "The culture of the modern man is characteristically urban, as distinguished from the folk culture, which rests on personal relations and direct participation in the common life of the family, the tribe, and the village community" (1923;1952:108). It was this notion of the folk society which became the norm of a "natural" social order in terms of which urban society was to be estimated (1929;1952:74, quoted in Chapter Four, p.100).

world (Chapter Four,99-100). Not that the reference to the necessity of social control necessarily implies a "return to the good old days" approach. In some respects Park was forward looking (Chapter Three, p.83) At the same time the belief in the automatic emergence of new forms, as we have mentioned (Ibid), led to a passive stance - and the fact that two significant "movements" of the day seemed to go unobserved is further evidence of a conservatism. (Cf. Chapter Five, p.123) for Shil's view showing a cleavage between official beliefs and actual performance).

CHAPTER FIVE

AN APPLICATION TO MODERN ECOLOGY

A) Introduction.
B) Defining Modern Ecology.
C) Arguments for the Relevance of the Classical Human Ecologists.
D) Notes on the Applicability of the Issues to Modern Ecology.
E) A Brief Comparison between Classical Human Ecology and Modern Ecology.

A: INTRODUCTION

a) THE PRESENT NEED FOR TRADITIONAL CONSTRAINTS.

The purpose of this chapter is to argue, somewhat tentatively, the usefulness of the Classical Human Ecology tradition, and the criticisms and discussion which emerged in the decade 1938-1948, for the contemporary debate. A convenient starting point is Philip Rieff's[1] (Urban, 1971:44f.) polemic against the "barbarism" in the general orientation of the present "technological ethos" in which there is a "loss of the past" or a lack of "historic memory." As he sees it, "It means a systematic rejection of the past and of the constraints of the past, the constant opening up of new opportunities..." These two activities, of rejection of the past, and of opening up of the new, would seem to hang together - for if the constraints which arise from previous follies and mistakes are rejected, then the present can be attacked with little inhibition. In this way the sciences could become more and more differentiated without ever fathoming the depths of a particular theory of causation.

b) THE CATALOGUE OF ISSUES - TOWARDS AN ALERTING DEVICE.

It is hoped that this thesis will make some contribution towards fathoming the depths of ecological theory, and reviving "historic memory" for the purposes of the present. The manner in which it arose and passed

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(1) Philip Rieff is the Benjamin Franklin professor of Sociology at the University of Pennsylvania, Philadelphia.

from the scene, so far as sociology is concerned, may prove of some value in building up a framework in which constraints, noted in the criticisms of the past, may facilitate contemporary discussion. The purpose behind the cataloging of issues at the end of each chapter is in the building up of an alerting device to possible pitfalls in argument when an ecological commitment is made in thinking about human behaviour.

B: DEFINING MODERN ECOLOGY.

a) A PRELIMINARY REMARK.

Apart from the fact that Modern Ecology is very new and therefore difficult to describe in essence, it is also very widespread and rather amorphous. Nevertheless as some comparisons are being made here between C.H.E. and Modern Ecology some precision is desirable.

As we have seen (Issue 9) the "blind spots" are the crucial ones in that they often mark, in a pervasive manner, the rest of the material. So important are these latent assumptions that it is in fact in terms of them, that a discipline may be defined. It is upon this assumption that the following discussion proceeds.(1)

b) THE IDEOLOGICAL OVERBURDEN.

The following analysis is taken exclusively from Gerald Suttle's (1972) contribution. He draws attention to the significant fact that within a period of two years, 1966-1967, three books,(2) offering " a holistic account

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(1) For a more direct approach to the definition of Modern Ecology we refer to Detwyler's (1971:4) discussion: "Ecology has many advocates as the science of man-environment. Certainly the most common definition of the field would make it appear to be so: 'The study of relationships between organisms and their environments.' In practice, however, ecology has conformed much more closely to Pierre Dansereau's narrower definition as 'The study of the reaction of plants and animals to their immediate environment, to their habitat' (Dansereau,1957,p.323)...Furthermore, man's place in the ecosystem has been of scarce concern, although applied ecology and human ecology now appear to be developing."

(2) Robert Ardrey: The Territorial Imperative.1966.Atheneum.New York.
Konrad Lorenz: On Aggression.1966.Harcourt,Brace & Ward,New York.
Desmond Morris: The Naked Ape.1967.McGraw-Hill.New York.

of man, territoriality, animals, and aggression," were published, destined to become extremely popular. Written by scientists who had a gift of popularizing their views these books have become widely quoted in mass media. What interests us about this is the inference Suttles[1] draws from the popularity they, and a host of other "more technical and restrained considerations," stimulated. Pointing out the "mass of criticism" to which these books have fallen prey, Suttles (1972:112) asks the question, "If these works are as full of flaws as the critics suggest, why have they become so popular, and why is there such a convergence among their points of view?" In his opinion (Ibid:135) what we have here is an overreaction to "sociological ideology": "In large part the ideological overburden in the works of Ardrey, Lorenz, and Morris can be seen as a reaction to a contrary ideological overburden in some recent sociological works. The view that the social order is a mere contrivance of arbitrarily selected rules is at least implicit in some recent and popular sociological writings..." Dennis Wrong's famous 1961 article, "The Oversocialized Concept of Man" is cited as corroboration of this view. The view which laymen have received is that of a society in which cultural rules and organizational forms are purely arbitrary (Ibid:114-115):

> Taken to its extreme form, this sociological point of view suggests that society exists only in the minds of individuals and that those who by accident or circumstance happen to be the more powerful will force their views down the throats of those less forceful. Social distinctions such as those represented in the division of labour or the primordial ties of race, kinship, ethnicity, and residence become mere conventions, either as atavistic [appearance of ancestral, as distinguished from parental, characteristics: reversion to a more primitive type] survivals or as deceits practiced by self-interested and powerful groups...
> If man truly makes himself, then he might as well make himself well as ill...All that is required are the right names and labels for people and situations...It is this fanciful [also "arbitrary," "threadbare," "ethereal"] world of words and social fictions that Ardrey, Lorenz, and Morris are challenging. [though without footnotes; i.e. they are reacting generally to a widespread view.]

Of particular interest, with regard to this "new ideology," Suttles (Ibid:118) observes: "As a traditional field of inquiry it comes

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(1) Gerald Suttles is a sociologist and researcher at the University of Chicago.

closest to fitting into what is called human ecology." (My emphasis).
A number of points are mentioned as giving some validity to this statement, though, it will be noted, only a rough correspondence between C.H.E. and the "new ideology" may be inferred from them:
(1) The"sheer range" to which the concept is extended is mentioned (Ibid).
(2) The technique of "gross extrapolation" (Ibid 119) from nonhuman organisms to human beings "with very little conceptual or empirical justification."
(3) The underplaying of the cultural dimension (Ibid): "A central aim of their work is to establish that man is 'just another animal' whose culture and social organization only gloss over the primitive impulses and instincts which guide 'all animal behavior.' They may be right... But each author has tried to demonstrate his argument only by showing how generalizations drawn from studies of nonhuman organisms can be selectively applied to some incidents among humans. Such incidental parallels between man and animal do not prove their general comparability but assume such comparability."
(4) There is the stress on empiricism and materialism.
(5) The idea that the "adaptive mechanisms" should produce orderly relationships (Ibid 121).
(6) But with man the stress, by contrast, is on disorganization: "Thus we have in rather clear and self-conscious form a restatement of the aged doctrine of original sin" (Ibid:122).
(7) Absolutist (monistic) claims are made: "A persistent theme of all three books, then, starts with the connection between territoriality and aggresion and proceeds from there to explain all aggression as a consequence of territoriality" (Ibid:128; my emphasis).
A concluding statement (Ibid:124): "Thus, their works are popularly received because they boil things down to a single alternative. The simplistic way in which they have made their arguments is appealing because the practical decisions which face us are equally simple and come down to the primary response of 'Yes' or 'No!."
(8) This links up with another similarity - the preponderance of attention to non-human behaviour. "Ardrey devotes roughly six chapters to describing animal behavior and three more to saying that humans are no different. Lorenz does the same thing with eleven of fourteen chapters" (Ibid:125).

While some of these points offer a suggestive parallel between the said "movements" attention is drawn to the terms "overburden" and "ideology" (by which Suttles (Ibid:130) means "a practical theory of society [which] must bring its doctrines to the point where decisions can be seen in terms of binary or practical alternatives"). It would seem that, unlike in the case with the C.H.E.s (cf.p.74 above) there is no hesitation here in describing these theorists as "biologizers": "Ardrey, Lorenz, and Morris...are bent on a much more [than human ecology][1] reductionist statement which goes beyond mere environmentalism to the more indestructible elements of man's biogenetic past. Their views, then, go well past the usual claims of environmentalism implicit in some forms of human ecology to place man's abiding characteristics in a universal framework which he shares with all other animals irrespective of his environment, much less his culture."(Ibid:118).

We may note in drawing to a close this discussion of Suttles' contribution, that his discussion of this "new ideology" is peppered with many of the "isms" we have identified in the earlier criticisms of Classical Human Ecology: determinism, reductionism, empiricism, materialism, positivism, dogmatism, oversimplification, conservatism. Both "argument by ecological analogy" and "argument by dichotomy" are discussed (cf. Ibid:118,136). We end with the following citation (Ibid:115): The message they bear is essentially a call for a return to a more simple biological determinism. It is a message which reemphasizes the harshness of competition and aggression, the sacrifices of group life, and the enduring biogenetic bases of social differentiation." It would seem that the view of man as at base "competitive" is again enjoying attention.

To summarize, then, we may point out that a "movement," both popular and scholarly, in which interest in a biological view of man was expressed, is characteristic of the late sixties. In some of the more popular works an extreme biologism is noted. Of interest is the inference of Suttles that what we have here is an over-reaction to a "sociological ideology."

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(1) Or Classical Human Ecology presumably.

c) MODERN ECOLOGY.

It would seem not unreasonable to suggest that both the popular and more scholarly interest in ecology (a high point was reached in 1969-1971) is not unrelated to that described by Suttles, and that the similarities noted there with regard to C.H.E. and the "new ideology" may be paralleled with a similar similarity in the case of the more popular versions of Modern Ecology.

A suggestive linkage between Suttles' "new ideology" and Modern Ecology, apart from their proximity in time, lies in the fact that the leading figures in both "movements" are biologists. In Modern Ecology the name of Rachel Carson, a biologist, is frequently mentioned as "pointing the way" (cf. Newsweek,1970 (Jan.26):25). Her book Silent Spring, 1962, seems to have been the spark, not only to an American, but also to a world wide "movement." In America certain biologists or ecologists can be pointed to as "leading lights." Time magazine (1970,(Feb.2):40) mentions specifically the following names: René Dubos (Rockefeller University), LaMont C. Cole (Cornell), Eugene P. Odum (University of Georgia), Paul R. Ehrlich (Stanford University), Kenneth E.F. Watt (University of California at Davis). Important English names are Lord Ritchie-Calder and Sir Frank Frazer Darling.

Arguing from the predominance of Biologists/Ecologists in both popular and serious writings in Modern Ecology it may be suggested that a characteristic of Modern Ecology lies in the shared assumption (among modern ecologists broadly conceived) of the primary importance of the biological view of man.

But Modern Ecology is not confined to these. There are contributors of many disciplines in magazines, journals, newspapers, etc., of various sorts. John Barr (editor of The Environmental Handbook : Action Guide for the UK. 1971) has listed some 50 national (i.e. mostly English) and international conservation bodies. The recent "Friends of the Earth" (1969/1970) organization has an international membership. New journals e.g. "Your Environment," "The Environment This Month" have appeared. Comment has come from a wide range of specialists. Much of the more popular material lacks the usual constraints of academic thinking, and much of it is said to be "emotional" (Prof. Fuggel) or "humanistic" (Prof. Versveld).

While there is an obvious, and no doubt undisputed, gap between thinkers who have achieved a recognized scientific reputation like Professor Athelstan Spilhaus[1] and those who he has dubbed "eco-maniacs" ("whose knees jerk at the mention of the word 'pollution', who wish to turn away from the industrial, technological revolution and the rewards it has brought. Nobody in his right mind would say 'stop industry' because of pollution - that would be like cutting off your head because you've got a headache."), there is also a gap between the more conservative members of the ecological profession and writers like Spilhaus. In a response to an appeal: "help us live our lives more intelligently...Let people know the impact of their everyday lives on the environment" (Ecology,1970,Vol.51:363), Edward S. Deevey (Ibid) writing on behalf of professional ecologists, says, "Ecologists are both flattered by these official expressions of interest, and made apprehensive by them...Ecology has much to contribute to [the training of environment managers] ...but an ecologist is no more qualified for managerial decisions about environment than a physicist is qualified to build a bridge."

In conclusion it may be remarked that while ecology is fairly easy to define, modern ecology is not. Southwick's (1972:xii) definition is as follows: "Ecology is the scientific study of the relationships of living organisms with each other and with their environment." He goes on to say that such "definitions seem simple enough, but their full ramifications for human health and welfare are infinitely complex and by no means fully understood." It would be misleading to describe Modern Ecology as Darwinist (in the way in which the C.H.E.s were described as such), nevertheless, there seems to be some evidence in suggesting a wide spread commitment to the importance of a biological (or ecological) view point. It is upon this possibility that we go on to suggest that similar dilemmas as those which we observed in C.H.E. may still be operative.

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(1) Athelstan Spilhaus is Professor of Geophysics at the University of Minnesota and chairman of the American Association for the Advancement of Science. He is known for his writings on "The Experimental City." The bracketed comment was personally noted in a lecture he gave at the University of Cape Town, June 29, 1972.

C: ARGUMENTS FOR THE RELEVANCE OF THE CLASSICAL HUMAN ECOLOGISTS

It was suggested in the first chapter that one of the best contributions sociology could make to the present debate with regard to modern ecology was to dig up its own past. What will be attempted here is a justification of this statement.

a) THE PAUCITY OF THE SOCIOLOGICAL CONTRIBUTION.

Barry Commoner (Time, Jan.11,1971) made this appeal two years ago: "A start,[1] he said, is to define crucial social issues in a way that emphasizes man's present disruption of nature's fundamental benevolence. Then it's up to the economist, and social scientist to figure out how we can change social habits. I have no idea how it can be done, but it has to be."

The service nature of Ecology to social scientists (and economists) suggested here is not dissimilar to the role Park, in the end, suggested for C.H.E. (cf. Wirth,1945;1961:72). What is interesting in this case, however, is that it is not a sociologist or a human ecologist (in the traditional sense) who is making the point. And this is just what is so mysterious. It is not merely that ten years and more have passed by since the new upsurge of interest in ecology started without a "Sociology of Pollution" being written, for there is, it seems, a "sociology" of nearly everything else, but the fact that sociologists have had ready-to-hand a whole academic tradition in C.H.E. from which to draw, yet have not chosen to do so. Like the proverbial skeleton in the cupboard C.H.E. seems well locked away in the sociological locker!

Of course, there is an explanation for this and Detwyler[2] (1971:3) makes

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(1) With regard to this quotation we may note here another example of the possibility of an implicit claim to absolutist thinking. The assumption is that ecology will be responsible for defining "crucial" issues as a "start." But it is only from a particular point of view that certain issues become "crucial." As we noted earlier (p.35) it is the start which makes all the difference,for it is in the start, that a particularistic view is adopted, and, once accepted, "colours" the rest of the vision. For Barry Commoner see p. 138below.

(2) Thomas R. Detwyler is a geographer at the University of Michigan.

a probing remark when he says "man-environment research has been neglected since the 1930's, when the flaws of 'environmental determinism' became widely recognized...The important point is here that...reaction to environmental determinism...dampened all kinds of environmental investigation including that of physical geography." (Cf. Issue 13 for remarks made by Bell and Newby). This is to skate very lightly over the criticism which "mounted up" against the Classical Human Ecologists.

Thus after a period of thirty years or more ecology is back in the centre of the stage. It would seem that for some, as the late Louis Armand (cf. Urban,1971:135) noted, Modern Ecology has some innate claim to be regarded as man's moral guide. In this respect (i.e. of looking toward ecology as a "moral guide") Detwyler (1971:3) is mistaken in suggesting that it is now for the first time that men are turning their attention to ecology: "No single scientific movement has yet integrated these features, and hence there is no explanatory or predictive environmental science." By these features Detwyler means (a) the processes of environmental interaction; (b) the interdisciplinary repercussions; (c) man's actions. These are, surely, the very features which Park and his colleagues worked with, and with which the neo-ecologists are still working.(1) Even if by this omission it was implied that C.H.E. was a "write-off" courtesy would demand at least a footnoted reference to a former brave attempt. It would seem that the whole movement having passed from the focus of present interest has been consigned to limbo.

At any rate there is an undoubted enthusiasm for Modern Ecology. What is of interest to the sociologist is the ready drawing-in of sociology into the ecological net: "The message of Ecology is one of synthesis... it attempts to join biology and sociology."(Southwick,1972:xiii).(2)

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(1) The Neo-ecologists generally observe what they have termed the "ecological complex" (cf. Sjoberg in Hauser and Schnore,1964:165-168). The four classes of variables specified are population, social organization, environment, and technology. Nor is the dynamic element, mentioned by Detwyler, neglected by the Neo-ecologists. Reissman(1964:244) makes the following interesting comment, "Rossi correctly chastizes them for a 'distressing tendency toward intellectual "imperialism." The ecological perspective is so loosely defined that it can be stretched to include what is regarded as praiseworthy...and contracted to avoid the apparently faulty'."

(2) Charles H. Southwick is an ecologist at the John Hopkins University, Baltimore, Maryland.

Far from objecting to this synthetic approach it is (I believe) to be welcomed. What a disappointment, therefore, to find, after one's expectations had been aroused by the mention of such an aim in the introductory overview, what amounts to virtually no sociological material whatsoever. Of the 17 chapters of Southwick's book three have titles which suggest a possible sociological reference. Contentwise however, these chapters are very disappointing to the sociologist. While it is not necessarily a prerequisite for good sociology, there is possibly some inference to be drawn from the fact that not one recognizable sociologist is mentioned in the three chapters, nor for that matter in the book as a whole. What makes the ommission more glaring is the list at the end of the book in which over 400 authors are mentioned. The inference that needs I think to be drawn is not that Southwick has not made a worthwhile attempt, although the reference to sociology in the introduction is undoubtedly misleading, but that there are no substantial sociological contributions to the modern ecological debate from which to draw.

This conclusion, on the basis of the examination of one book, is no doubt made too hastily, though it must be pointed out that the book explicitly wishes to introduce ecology to beginner students and stimulate a wider-than-traditionally-defined debate. Southwick, however, is not the only writer with such aims and a further survey of literature is called for. No claims are made here to an exhaustive search, though, unfortunately, there is nothing that the author has come across in Cape Town's book stores, or the university libraries which has given any cause to alter his opinion.(1)

The admirable book by Barbara Ward(2) and René Dubos,(3) Only One Earth, 1972 bears the economic and ecological stamp of its authors. While the book has an obvious sociological interest, it cannot be classed under

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(1) The publishers Holt, Rinehart and Winston Inc. have informed me that such a book is in preparation by a sociologist, Michael Michlin, of Texas. The title is to be "Environment, Population and Social Organization : Current Issues in Human Ecology." However, see Postscript.

(2) Barbara Ward (Lady Jackson) is the Schweitzer Professor of International Economic Development at Columbia University.

(3) René Dubos is an eminent biologist, he is Professor of Pathology at the Rockefeller University.

this category. One can, possibly, gain some idea of the relative strengths in representation of disciplines by examining the list of "corresponding consultants." The book was written with reference to manuscripts prepared by the consultants though obviously the work is a product of the authors. Of the 152 listed consultants a third of the number fall roughly into a biological/agricultural category. This is the largest division. Next are the geographers, economists, industrialists, and physical scientists with about ten each. These are followed by an under five division of architects, journalists, philosophers, educationalists, lawyers, nutritionalists, medical and health experts, social anthropologists and sociologists. The same sort of divisions is born out in an examination of the Claude Gill Books Catalogue on Environmental Sciences.

There are may readers on environmental and ecological subjects. Of the half dozen mentioned here,(1) while no claim is made with regard to their representativeness, it is possibly suggestive that only one (the first in the list) has articles by sociologists and these are population theorists.

The best representation of sociological thinking, it is suggested here, is in Urban,G.R.(Ed): Can We Survive Our Future?,1971. Radio interviews on Radio Free Europe are reproduced in dialogue style. Of the twenty-three interviewed four were sociologists by profession and two were trained in sociology and occupy non-academic posts. Even so, interesting as these contributions are, they do not amount to a very weighty contribution.

So the opinion that the sociological contribution is virtually non-existent remains. The accusation that sociologists are still too

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(1) Holdren,J.P. and P.R. Ehrlich (eds): Global Ecology, Readings Towards a Rational Strategy for Man. 1971.
Barr,J.(ed): The Environmental Handbook : Action Guide for the UK. 1971.
Odum et.al.: The Crisis of Survival. 1970.
Disch,R.: The Ecological Conscience, Values for Survival. 1970.
Barbour,I.G. (ed).: Earth Might be Fair. 1972.
Kay,D.A. and E.B. Skolnikoff (eds).: World Eco-Crisis. 1972.
Warner,A.W. and D. Morse and T.E. Cooney (eds).: The Environment of Change. 1969. (One article is by an anthropologist).

preoccupied with pure scientific methodological procedure to turn their minds to policy matters, or too abstract and removed from the world of mundane reality to be concerned about pollution and environmental disassters, is based on a stereotype which, it is hoped, is so out-of-date as to be untrue. Shils (1934;1961:1434-5) informs us that even when there was a belief among sociologists that they, as scientists, had best keep their hands clean of evaluative problems in any way, in fact there was no uniformity about this, and even among those who professed this doctrine, their conduct did not always match up to it: "Social scientists did, nonetheless, serve on government commissions, testify before congressional committees, and participate in various political reform movements," though the fact that they were exceptions to the "mood" of their professions is duly acknowledged. But those times are past: "Today governments, political parties, military, private business, civic, and economic organizations compete with universities and endowed research institutes as employers of social scientists. Naturally, the process has gone further in the United States than elsewhere."

If Shils is correct in his reading of the situation, then the seeming reticence with which sociologists have been accused may have a possibly more serious explanation. Thus to the suggestion (Bowen, in Dialogue, 1970:16) that "The social sciences would benefit greatly...by borrowing from the ecologists...their habit of sustained, open-eyed observation of what actually goes on," the sociologist may well be justified in querying this as a fruitful approach. Perhaps they could answer that they are suspicious of the empiricism (cf. Issue 5) and the claim to cognitive certainty (cf. Issue 2) implied in the statement. Perhaps the weariness of sociologists, if such there be, comes from a lesson learned by experience.

b) THE QUICK RISE TO FAME AND THE NEED FOR REFLEXIVENESS.

In 1971 the late Louis Armand[1] (Urban, 1971:132-136) expressed himself as follows: "Only ten or fifteen years ago one talked of pollution and protection of nature at the risk of being made to look silly and

(1) Louis Armand was a member of the French Academy and a distinguished administrator.

ridiculous. In less than five years all that has changed. Today anyone who does not utter the word 'ecology' ten times a day isn't up to date." Particularly is the popularity of biology or ecology[1] with regard to pollution to be regarded with caution: "the fallacy is especially insidious because it is so terribly misleading. If the technician of the internal combustion engine were to claim that some combination of his particular skills should furnish society with its ethical standards, we would not take him very seriously. But when a claim of that sort comes from biology, we tend to listen. And there lies the danger."

It would seem according to this analysis (as Gerald Suttles has suggested above), what we're faced with, is another swing of the pendulum in the Western dualistic tradition associated, for example, with the names of Descartes and Kant. Details of a historic nature cannot be gone into here, although it may be said in passing that the controversy between Malthus and Godwin (cf. Bowen,1954, Chapter Four) would be suggestive as a parallel between the rampant (contemporary) biologism described by Suttles and the popular "sociological ideology" as described by, say, Wrong (cf. p.114 above). Similarly the manner in which Malthus qualified his doctrine in the cut and thrust of debate suggests a parallel with the qualifications made by the Neo-ecologists (as defined by Reissman). However, as mentioned in the beginning of the thesis, the focus is upon C.H.E. (and Modern Ecology) - the line has to be drawn somewhere.

The point which we wish to argue here is a simple one. Insofar as Modern Ecology is to be explained in terms of a reference to a historical pendulum swing or reactionary "movement," to that extent it suffers from a lack of reflexiveness, which as noted in the case of Park (Issue 9), proved to be his undoing. Suttles' (1972:117) attempt to bring the unrecognized assumptions and reactions to the surface is heartily endorsed. It is suggested that short-cuts in the formulation of modern theory are to be avoided where possible. The criticisms of the past, where they are relevant, are to be used even if this means that the way

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(1) Biology is the more inclusive science. Ecology is subsumed as a sub-branch of it.

forward is the long way round: the taking of one or two steps backward. Possibly the rehearsing of the criticisms brought against C.H.E. will prove valuable in identifying issues in the "head-on collision between ideological views" ("sociological" and "biological" or ecological in this context) which marks the modern debate. At the very least their recalling will serve a balancing function; though hopefully, also an important service in the building up of a more general and acceptable theory. This is not to suggest that Modern Ecology does not raise new questions or problems.

c) THE NEO-ECOLOGIST'S POSITION.

A detailed treatment of the Neo-ecologists lies outside the scope of this thesis (cf.footnote 2,p.102). However, in order to place ourselves in the position so as to argue a point, a summary treatment needs to be considered. Here we rely upon the opinions of two writers - Reissman (1964:115-121) and Sjoberg (1965 in Hauser and Schnore, 165-168).

The point may be taken that the Neo-ecologists, following Wirth (cf.p.102) have been concerned to show the importance of social structure - organizations and social institutions are drawn into the picture.

Reissman (1964:118) is more explicit in his generalization that little or no movement, so far as the fundamentals are concerned, has been made:

> In its fundamentals, neo-ecology is not discernibly different from the earlier ecology. Duncan, Schnore, and Hawley have proceeded from the same assumption as Park, that man's biological character is primary, in that he must first sustain himself physiologically before he can proceed to the development of cultural components. Culture, the ecologist then as now argues, can be considered simply as another element in man's adaptation to his environment. True, culture gives man greater control than plants and animals possess, but this difference is primarily one of degree rather than kind. Hence, culture, society, and personality take their places in ecological theory, as adaptations, much by the same principle that animals adapt to meet their environment...Social organization is by this view but a primary means of adaptation by human populations to the environment, aided by culture or technology...if I read neo-ecology correctly, it has more than a faint trace of biological determinism.

Sjoberg's analysis is along similar lines. He notes in their thinking, assumptions taken over from Classical economics.. Criticisms mentioned are in essence the same as those brought against C.H.E.: materialism; "sponginess of concepts"; and reductionism ("Duncan and Schnore seem to introduce values and other cultural criteria without formally acknowledging this deviation from their theoretical model" - Ibid).. Interestingly, so far as Modern Ecology is concerned, a critique of the "Gibbs-Martin" study is included. It is one which emphasizes sustenance activities rather than the "ecological complex" (cf. Duncan and Schnore). But, again, this marks no real change from the C.H.E. position: "Gibbs and Martin, like Duncan and Schnore, have used their so-called ecological approach to organize an impressive amount of empirical data into some meaningful whole. But they falter when they attempt to theorize concerning their framework, especially in the matter of values...the assumption that the division of labour can be entirely dissociated from values has not been demonstrated either theoretically or empirically." (Ibid). As in the case of Duncan and Schnore, Gibbs and Martin include in their formulations a number of implicit assumptions about "economic man" taken over from Classical economics.

We are in a position now to argue a simple point. If the criticism brought against Classical Human Ecology still applies to Neo-Ecology (cf. footnote 2, p.102), then there may be some likelihood that it will also apply to Modern Ecology.

d) THE SEARCH FOR HISTORIC FOUNDATIONS IN MODERN ECOLOGY.

Comment has already been made with regard to the speed with which Modern Ecology came on to the contemporary stage. Expressing a similar opinion is the Federal President of Western Germany, Dr. Gustav Heinemann (Special Report 1970): "Barely ten years ago many people were amused that during an election campaign in North Rhine-Westphalia one party campaigned with the slogan: We want blue skies above the Rhine and Ruhr. Today we realize that this problem will remain on the agenda for the foreseeable future."

While "pollution" and with it "ecology" are generally thought to be issues of high priority for the seventies if not for the rest of the century, there are already several voices pointing to a "backlash"

(cf. Southwick,1972:xii). The very suddenness of the upsurge in interest has led to the fear among some conservationalists that "the whole thing may be one of America's periodic fads" (Newsweek,1970, Jan.26 :25). This reaction is surely partly legitimate, for the quick rise to priority heights, and the institutional changes already being made as a consequence of it, in political, academic and legal spheres, to mention only these, is bound to draw some conservative reaction. Moreover, as Southwick (Ibid) points out, "Despite the prominence of ecology as a public issue and newsworthy subject, the fact remained that its prominence was built upon a remarkably weak educational foundation."

In response to this, no doubt, there has arisen the need to justify the ecological approach and some historians have risen to the occasion in attempting to fill in the background to man's relationship with his environment. What can be rightly described as a celebrated article[1] is that of Lynn T. White, Jr. (1976): "The Historical Roots of our Ecological Crisis." Also there is the recent chapter, "Man's Use of the Earth" in Max Nicholson's, The Environmental Revolution : A Guide for the New Masters of the World, 1970.(cf. Detwyler,1971). Barbara Ward and René Dubos', Only One Earth, 1972, too, starts with an historical chapter, "The World We Inherit." Southwick's book has three chapters which are best described as historical.

Various issues form the content of these writings. Biblical attitudes are commented upon by White; the "Baconian Creed" is discussed by Southwick; Ward and Dubos focus on "the technological age" and energy production; and Nicholson, taking the long view, speaks of "the new dynamic, mobile, innovating civilizations which have become paramount during the past 3000 years," and more recently, of the "Eight Horizons of Expanding Technology," the most spectacular of which is man's new ability for mobility.

This is a very inadequate account of the content of these works, nevertheless,

(1) "reprinted in several settings, this address has become one of the landmarks of the contemporary ecological movement" (Barbour,1972:140). It is reproduced in Barr (1971) and Detwyler (1971). Lynn T. White is professor of History and director of the Center for Medieval and Renaissance Studies at the University of California, Los Angeles.

brief as the overview is, it is accurate in this that none mention the theoretical merits or demerits of the ecological model of explanation. And none mention the Classical Human Ecologists, their quick rise to fame, or the reasons for their dissolution.

D: NOTES ON THE APPLICATION OF THE ISSUES TO MODERN ECOLOGY.

a) INTRODUCTORY REMARKS.

While Classical Human Ecology and Modern Ecology are both creatures of the twentieth century, they are separated by two or three decades during which time there has been much theoretical innovation. Obviously the issues will not apply in exactly the same way to Modern Ecology as to C.H.E. In the first place Modern Ecology is far more diversified. Just how, and whether, a particular issue would apply would require individual attention in each case. While we do not intend to draw out just where in Modern Ecology all sixteen issues may apply (such a task being beyond the scope of this thesis), it seems desirable to give some indication of their applicability and use as an alerting device. In order to do this we propose to use the three major theory generating concepts as a basis for drawing some parallels. Even here two limits must be placed on the discussion. (i) It is proposed that three books will be chiefly referred to in the discussion which follows:

Thomas R. Detwyler (ed): Man's Impact on Environment, 1971. This is a reader collecting together articles from professional journals. Most of the articles are written strictly within the discipline of geography, ecology, biology, meteorology, etc. and comment upon these articles should not be sought for here. However, there are a few articles, particularly the Introduction and Summary by Detwyler, which are relevant. It is here that a movement from the more traditional orientation is made towards an inclusive reference to man.

Charles H. Southwick: Ecology and the Quality of our Environment, 1972. This book was written in the belief that "Those in business, law, education, liberal arts, engineering, agriculture, medicine and health,

social service, and other related fields can all benefit from the insights and perspectives of ecology... Its primary purpose...is to integrate the principle of ecology with the social and environmental problems of man." (Ibid:v). Much of the book introduces basic biological and ecological concepts and perspectives. Again, it must be said, commentary upon this section should not be sought for here. However, both in the Preface, Introducation, Part 2 dealing with "Historical Aspects of Ecology," and in the final chapter, "Ecology and the Future of Man," where application of ecological principles and concepts are extended to man, there is material which is grist to our mill.

Barbara Ward and René Dubos: Only One Earth, 1972. Commentary on the contents of the book have already been made (pp.121-122 above). The sections which interest us more particularly are Chapters 1,14 and 15.

The grounds for singling out these books lies in the fact that they are attempts at an overall integration of biological and sociological perspectives.

(ii) A summary of the components of the three major theory generating concepts is given below. While it would be desirable to draw out parallels in terms of each of the components of the major theory generating concepts listed below, only those which immediately came to mind were used.

(1) The Natural Area Concept.

(a) The limits or boundaries of the "community" (p.18).

(b) The forces (or activities (p.26,27,60)) of mobility are regarded as indexes of human behaviour.

(c) The interrelationship of the forces form spatio-temporal regular patterns (indicating homogeneous areas - p.27).

(d) These are empirically measurable (p.22), (visibility).

(2) The Ecological Concept.

(a) The organism-environment relationship is basic (p.48).

(b) The ecological framework (pp.34-38) serves as a means for examining the processes of succession (p.52-58), domination (p.62-66). structural growth (p.66-69), stability (p.69-71), symbiosis (p.78-80),

(3) The Socio-Cultural Concept : The Dichotomy.

(a) Man is a creature of two worlds: ecological =; subsocial (p.62) and cultural (p.88-89).

(b) These worlds or points of reference are polar (or antithetical, mutually exclusive - p.88).

(c) The cultural element (aspect) is regarded as a superstructure resting upon the more fundamental biotic element (or aspect) (p.92-94).

(d) The time factor (p.96) is used.

(e) Social control is linked to the cultural aspect (p.98-99)

1. THE :NATURAL AREA CONCEPT.

(i) The conceptual distinction between the spatial/geographic and ecological/biological elements is recognized.

Unlike the development of the C.H.E. historical developmental stages should not be looked for. However, a conceptual distinction remains. Thus as Bowen (1970:13) points out, "an ecologist uses the term "ecosystem" to mean the community of living things and the physical environment, both together, in the segment he is studying." We have here a reference to both spatial (geographic) and biological (ecological) aspects. The same double reference is noted, for instance, in Odum's (1970:50) definition: "The ecosystem, or ecological system, is considered to be a unit of biological organization made up of all the organisms in a given area (that is, "community") interacting with the physical environment so that a flow of energy leads to characteristic trophic structure and material cycles within the system."

Southwick's (1972:104-105) explicit treatment of essential terms makes the conceptual distinction clearer. There are five important terms - population, community, environment, habitat, and ecosystem. While the terms habitat and environment are used primarily for physical features such as topography, water supplies and climate, the terms are not confined to physical features, for vegetation and other animals also form major components of any given habitat or environment: In brief, while a conceptual distinction can be observed between a geographic and a biological referent the usual practice would appear to merge the two. Thus a dual reference can be noted in Southwick's definitions which are as follows:

> A habitat is the natural abode or locality of an animal, plant or person (from the Latin, habitare, to dwell). Thus it also includes all features of the environment in a given locality. Environment literally means "to surround" (from the French verb environner), and it therefore means surroundings or something that surrounds. It includes "all the conditions, circumstances, and influences surrounding, and affecting... an organism or group of organisms (Webster's New Twentieth Century Dictionary, 1966). An ecosystem includes populations, communities, habitats and environments, and it specifically refers to the dynamic interaction of all parts of the environment, focusing particularly on the exchange of materials between living and nonliving parts.

It will be recalled that an important component in Park's spatial view of the city was population size (more clearly in McKenzie and Wirth); and that in determining population size a geographic, or aerial unit, was automatically implied (cf. Chapter Two). Following upon this conception therefore, as is expected, a geographic and spatial referent is still a key feature in Southwick's definition: "a population is a group of interacting individuals, usually of the same species, in a definable space."

It is Detwyler (1971:5-6) though, who stresses the contribution of geography to Modern Ecology. He points out that "Unlike ecologists, geographers have tended to study broad spatial patterns and relations between man and landscape." It is because of this that Detwyler recommends that "Geographers should provide the emerging science of environment with an appreciation of scale and valuable methods of spatial analysis, as well as the integrative, interdisciplinary viewpoints mentioned above." Here we have an interesting return to the C.H.E. point of departure!

(ii) The subjective element in establishing the boundaries of ecosystems. Of particular significance in most if not all of the above definitions is the reference to a "given area," "the natural abode or locality of the animal," or "a given locality." What we wish to refer to here is the important subjective element in the establishment of limits or boundaries (Issue I). The point is that areas are not "given" or "natural." Bowen (1970:13) draws attention to this implicitly when he says "Ecologists study all kinds of segments, great and small. One ecologist may investigate how various species of mites coexist

in the pine-needle litter on a forest floor by occupying separate "niches," or ways of making a living...Another ecologist may work out the intermeshed food chains of various species in a pond or a forest. Still another, a worker in the sprawling, almost unbounded field called 'human ecology,' may trace the paths by which radioactive substances and persistent pesticides...accumulate in the tissues of our bodies." The subjective element is also implicit in the distinction between the broad and narrow focus of geographers and ecologists noted by Detwyler (1971:5). Interestingly he points out that "The bulk of recent research in ecology appears to have added little to our understanding of man-environment relations, partly because so often 'pristine nature' is sought out for study and in part because of the arbitrary, often minute, scale of most investigations." (My emphasis). As we noted in discussing C.H.E. it is best that the subjective aspect of all concepts be duly admitted and brought to the surface: cf. Issue 1 - Subjectivity; Issue 2 - Realism and Reification.

Related to this problem of establishing limits or boundaries the Parkian distinction (pp.20-22) between "natural" and administrative boundaries takes on a contemporary significance. Referring again to the Stockholm Conference the question of sovereign national rights and the meaning of, or perhaps meaninglessness of, state boundaries in terms of pollution was raised. Two of the twenty-three established principles may be mentioned in this connection (cf. The Environment this Month, July 1972):

> Principle 18: States have in accordance with the charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction.
>
> Principle 22: Co-operation through international agreements or otherwise is essential to prevent, eliminate or reduce and effectively control adverse environmental affects resulting from activities conducted in all spheres, in such a way that due account is taken of the interests of all states.

As can be expected from the nature of the representation of the Stockholm Conference, national and administrative or jurisdictive boundaries were certainly not dismissed as "arbitrary" or irrelevant unrealities. This

is a point in marked contrast to Park's point of view. Nevertheless the fact that we have again, "a dispute between the appropriateness of one set of boundaries weighed against another" (p.21) is born out in the last three chapters of Ward and Dubos' book. The modern debate is, because of its more realistic political appraisal, possibly more interesting. An attempt to debunk the importance of national boundaries in a discussion such as that at Stockholm could be construed as disloyalty - no such inhibitions bothered Park. One may indulge here in a speculation. Given the academic detachment of Park, would not the most logical procedure be to hand over the governance of the world to a select group of ecologists, and at the same time substitute ecological regions, as the basis of organization, for political ones? (Cf. Newsweek, 1970 Jan.26:45: "Any rational approach to a worldwide affliction such as pollution requires that national and local rivalries be put aside.") In this way a "quality environment" may be achieved, and the dictum (Southwick,1971:xiii) "What is best for the world as a whole is ultimately best for man" be put into practice! Happily there is little trace of such a speculation in Ward and Dubos! discussion. Only in one passage (1972:293) do they speak of national sovereignity having to "adapt to the environmental imperative." For the most part the sovereignities of states are treated as realities, though their shortcomings in "global decision-making" are stressed (1972:270): "It requires a new commitment to global responsibilities. Equally, it needs effective action between the nations to make responsibility a fact." The balance of this statement is typical throughout their book.

(iii) The Questions of Visibility and Consensus.

A comparison between the manner in which Park claimed a reality for the ecological concept, and the manner in which the reality of the ecological point of view is asserted in Modern Ecology is pertinent. Basically Park adopted two strategies:

(a) to stress the visibility of the referents of his concept (p.22).
(b) to convince others and build up a high degree of consensus as to the usefulness and appropriateness of his concept (p.23).

These strategies are still employed. To illustrate this, two passages - one taken from C.H.E.,possibly Park's most celebrated statement, and one from Modern Ecology (Southwick), bearing a remarkable similarity

to one another, are juxtaposed. We may see how upon a conceptual basis, in both cases, certain elements from a wider context may be selected and emphasized, and others disregarded. Thus the subjective and objective elements are both related to one another in conceptual analysis:

> Park (cf. Reissman, 1964:95): I expect that I have actually covered more ground tramping about in cities in different parts of the world, than any other living man. Out of all this I gained, among other things, a conception of the city, the community, and the region, not as geographical phenomenon merely, but as a kind of social organism.
>
> Southwick (1972:v): While this book was being written, my work involved several extended trips throughout the world to countries I had visited in the 1950's and 1960's. This provided the opportunity to see the world of the 1970's in terms of changes wrought by ten or twenty years of rapid development...In this age of ecological panic, I entertained the hope that I would find the world in pretty good shape after all. But reassurances were few and far between...I did find ample evidence that man still fails to understand his true position on this planet.

The following similarities may be noted:

(a) Both use a "look and see" method of observation. Conclusions are reached on the basis of the extensiveness of their travels and observations - Park: "I have actually covered more ground tramping about the cities in different parts of the world"; Southwick appeals to a double visit as well as extensiveness in coverage: "I did find ample evidence."

(b) Both claim to have found something - Park found that the city was a kind of social organism; Southwick found that "man still fails to understand his true position" (my emphasis). Certain conclusions are asserted, the organismic basis of city organization on the one hand, and the claim that it is within the ecological perspective that man's true position is made manifest, on the other.

Yet the subjective element upon which the conclusion is drawn is blatant; for we are not told the criteria upon which their claims were made, only that their travels were extensive. As Turner (1967:xxi) comments, "A scholar's choice of methods depends upon the character of findings and conclusions that he finds most useful or intuitively most satisfying." And indeed, there is nothing objectionable in this, only that he should make his criteria public.

What authenticates both Park's and Southwick's omission? Only the fact that the publics to whom they addressed themselves shared their assumptions. It was unnecessary in Park's case to mention the various types of buildings, the highways, etc., in order to justify his statement with regard to asserting an organismic hypothesis;[1] it was unnecessary also for Southwick to specify the oilslicks, smoke, etc., which caught his eye, upon which basis, he asserted man's ignorance of his true position. These things can indeed, where there is a high degree of consensus, be taken for granted - but only for a time. If we are to learn from experience, and this is surely the only basis upon which science can cumulate, then it is to be hoped that the questions raised by the issues in Chapter Two: (1) Subjectivism, (2) Realism (and Reification), (3) Dogmatism (or the Fossilization of concepts), (4) The Transference Fallacy, (5) Positivism; and (7) Localism, will prove to some degree, to be pertinent.

2. THE ECOLOGICAL CONCEPT : ARGUMENT BY PLANT OR ANIMAL ANALOGY.

The assumption upon which the argument from plant and animal analogy to human beings is made, is the notion that there is a common element between them. They are like each other in some respects, and because of this, it is argued, by extrapolation, what holds in the one case will also hold in the other. Very often, however, when this argument is employed it is not done following an explicit formula - and, as we have seen, there are fundamental problems with the argument. Can the less evolved be fairly compared with the more evolved? Does self-consciousness (or a particular degree of self-consciousness) in the case of human beings invalidate the argument? Is there in fact a common element between them upon which argument may be based? If so, how is this element abstracted and identified? Should one start with ecological concepts? And, if one does, how will this affect the rest of the argument? And so on.

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(1) Organismic theory hovers in the background of C.H.E. thought (cf. Burgess,1925:58; Park,1934;1952:161) as a supporting body of theory. Most of the issues which might be brought to the surface in their use of the organismic analogy, have, we feel, been discussed under other related concepts such as the Natural Area concept (idea of a closed system) and the ecological concept (functional analysis presupposed in ecological processes e.g. symbiosis, web-of-life). Gettys (1940; 1961:99) charges that the theoretical system promulgated by the C.H.E.s "is markedly positivistic, deterministic, mechanistic and organismic."

We have already spoken about the contemporary enthusiasm for using ecology as a starting point in analysis (cf. footnote (1) p. 119), and we have also noted the ecological element in the concepts (such as ecosystem) which are popular today in analysing human induced problems such as pollution. What we wish to do here is merely illustrate with two modern analogies the fact that the same type of argument is still with us.

First example: THE CASE OF THE MUTANT CARP AND THE TOLERANT URBANITE.
The description is as follows:
Kenneth Allsop (The Environmental Handbook, 1971; Introduction) drawing a distinction between "THEM" (governments, corporations, officialdom,etc.) and "US" (the fine in spirit) states:

> I believe that we must understand that there is a grimmer prospect than catastrophy - adaptation...I think it possible that THEY may stay on course and may also stay intact. It may be that WE, and our concepts of quality and beauty and harmony, are obsolescent and doomed to extinction. I have read a chillingly terrible reference to the discovery in the dead waters of Lake Erie - an American cesspool of chemical effluent and human sewage - a "new strange mutant of carp which actually lives off the poisons of the water"...I think we must reckon on there being fewer on our side than we imagine, that the human race is also producing its mutant carp which can live off poison.

Another description is given in Newsweek (1970,Jan.26:45) in which an explicit reference to René Dubos is made:

> Perhaps the greatest obstacle to rescue of the environment is man's own uncanny adaptibility. "Modern man," as Dubos notes ruefully, "can adjust to environmental pollution, intense crowding, deficient or excessive diet, as well as to monotonous and ugly surroundings." And these adjustments are reinforced by the process of natural selection; so that the human beings who take most readily to regimentation, overcrowding and esthetic privation rise to positions of leadership and also outbreed their less adaptive fellows. The real specter that pollution casts over man's future is not, the extinction of Homo sapiens but his mutation into some human equivalent of the carp now lurking in Lake Erie's fetid depths, living off poison.

In terms of our formula for argument by analogy it would seem that

the logic by which this analogy is made proceeds as follows:

> Because the carp has properties:
>
> mutation through natural selection;
>
> which is also shared by man:
>
> - cf. Newsweek above
>
> - Also see René Dubos (1965:270) "...man has entered a phase of his evolution in which many of his ancient biological attributes are no longer called into play and may therefore atrophy through disuse...Natural selection cannot possibly maintain this state of adaptiveness to an environment that no longer exists."

it therefore follows that just as the carp developed the capacity to live off poison, so will man develop the capacity to live in a fouled environment:

Southwick (1972:287 - expounding Dubos):

> Man will manage to survive with deplorable conditions, abysmal pollution and poverty, fantastic crowding and computerized automation.

Dubos (in Barr,1971:38):

> Step-by-step, people become tolerant of worse and worse environmental conditions without realizing that the expressionsof this tolerance will emerge later in the form of debilitating ailments.

Second example: Again from Dubos (1966 in Detwyler 1971:687-688):

THE CASE OF THE DOMESTICATED DOG AND THE 'UNHEALTHY' SUBURBANITE.

The argument, following the formula, is as follows:

> Because the domesticated dog and cat have properties:
>
> (a) "veneer of civilization"
>
> (b) the retention of "many of the behavioral characteristics of the wild species from which it was derived."
>
> which is also true of man:
>
> (a) veneer of civilization: "The knowledge of man's origins is admittedly very incomplete, but it is sufficient nevertheless to have no doubt that his genetic evolution came almost to a standstill many thousands of years ago."
>
> (b) the retention of many ancestral behavioral characteristics: "In man also there persists certain deeply ingrained psychological needs that have as much force as orthodox physiological requirements."

It follows that just as "the cat still has a 'need' to hunt even when pampered and well-fed in a city" so too man has a "biological urge to maintain contact with the kind of environment in which he evolved." Thus, "The pathetic exodus to the 'country' every week-end and when

ever conditions permit obviously means more than the mere search for comfort and quiet...biological man cannot remain healthy very long if he loses all contact with his earthy origins."

Lack of time forbids a detailed discussion here. Certainly Dubos' treatment is not as simple as the extracts given here might lead one to assume, and further argument and qualification would be necessary. Nevertheless, it is hoped that the two analogies suggest sufficient resemblance to those analysed in Chapter Three to warrant the suggestion that the issues which were shown to emerge in the discussion i.e. (9) Semnotism, (10) Pessimism, (11) Oversimplification, (12) Anthropomorphism and (13) Determinism may be regarded as pertinent to at least some of the contemporary argumentation.

3. THE SOCIO-CULTURAL CONCEPT : ARGUMENT BY DICHOTOMY.

One of the most interesting features of the modern debate has been a number of spectacular clashes between theorists of high standing. Mention can be made of the reputed (Time,1971,Jan.11:44) clash between Paul Ehrlich[1] and Barry Commoner,[2] both biologists, over the implications of population growth. Ehrlich sees unchecked population growth as the chief villian. He predicts "war, pestilence, and famine as the eventual consequence of mankind's proliferation." However, Commoner takes issue with him over the question of priorities in ecological problems: "Saying that none of our pollution problems can be solved without getting at population first is a cop-out of the worst kind." Rather, argues Commoner, "the root problem lies in consumption patterns," connected with a "rampant technology." It is with this focus that he points out the prior importance of changing "social habits." Here, in short, we have an "ecology" versus "culture" clash.

The contrast between Theo Leferve [3] and the late Louis Armand,[4] on the one hand, who maintained (cf. Urban,1971) a scientific optimism, and Jacques Ellul[5] and Philip Rieff,[6] on the other, who were pessimistic

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(1) Paul Ehrlich is Professor of Biology at Stanford University, America.
(2) Barry Commoner is Professor of Microbiology at Washington University.
(3) Theo Lefevre is Minister in Charge of Politics and Scientific Development in the Belgian Government.
(4) Louis Armand - see p.123.
(5) Jacques Ellul is Professor of History and the Sociology of Institutions at the University of Bordeaux.
(6) Philip Rieff is the Benjamin Franklin Professor of Sociology at the University of Pennsylvania.

with regard to life in a technological world, may also be noted; or again (cf. Dialogue,1970) between R. Buckminster Fuller's[1] machine based optimism and Lewis Mumford's[2] pessimistic views with regard to machine technology in modern affairs; similarly Dennis Gabor[3] and Werner Heisenberg[4] (cf. Urban,1971).

More generally Arthur Bourne[5] (The Environment This Month,1972:87) writes of the recent Stockholm conference, "Not only was there polarisation between the "doom" prophets and those that believed that things were not so bad, but there was disagreement between the "doom" prophets themselves." Ward and Dubos (1972: 29-30), with these same sort of contrasts of opinion in mind, state that "in reality experts rarely disagree on the validity of the facts themselves; they differ only with regard to the interpretation and use of these facts." For instance it would be expected that when making predictions of the future on the basis of these facts differences would magnify. Ward and Dubos are of the opinion that "in most cases the difficulties will originate not from uncertainties about scientific facts, but from differences in attitude toward social values." Undoubtedly this is correct. And yet, it would seem that the same sort of issues raised by the C.H.E. tradition, are, again, being raised in the modern debate:

(i) We may recall the C.H.E. dilemma with regard to man's dual position as occupying a role in society as a possessor of culture, and also as having a place in nature as an animal i.e. being a creature of two spheres, the socio-cultural and the biological (or ecological). Again, it is a question of: Where to put the emphasis? Ecologically there is "Only one earth," but culturally, as Ward and Dubos point out ("the difficulties...originate...from differences in attitudes toward social values") there are many earths. Resources are limited; all except man's capacity to innovate: "It is no longer resources that limit decisions.

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(1) R. Buckminster Fuller is an Architectural Engineer and writer.
(2) The late Lewis Mumford was a historian of cities.
(3) Dennis Gabor is Professor of Electron Physics at the Imperial College of Science and Technology in London.
(4) Werner Heisenberg is Director of the Max Planck Institute for Physics and Astrophysics and Professor at the University of Munich.
(5) Arthur Bourne is the Editor. He is a biologist and Research Fellow of the University of Lancaster.

It is the decision that makes the resources." U Thant. (cf. Forbes, 1968;1971:7).

(ii) Again it may be recalled that in C.H.E. argumentation from concepts such as the "natural area" and the ecological concept, the theorists were automatically involved in the problems of dichotomous classification. It would seem that in the modern debate theorists may be arguing from different sides of a similar dichotomous division. Urban (1971:18) suggests that it is generally more fashionable in America to prefer the kinds of "soft" sciences that "can sport some of the paraphernalia of the harder variety," than in Europe. It should be remembered that, soft or hard, the scientific quest is built on explanatory models which, by their very nature, are partial in their perspectives. Basic or central (cf. Southwick,1972:xii; Detwyler,1971:3) as ecology may be from certain points of view, an absolutist claim to exhaustiveness in explanation would be an overstepping of the mark. (Issue 2, Realism). The dilemma: Which Authority? is not easily solved.

(iii) Again we may recall the ambivalence noted in Park's treatment of competition (pp.99-101), the question of social control, and the possible suggestion, because of reaction against graft, of a conservative stance. Indeed it was not that social controls were not needed but that in seeking a solution to present ills, through a focus on disruption[1] and the measures needed for its control, other significant social movements were not recognized. A parallel may be suggested in the modern ambivalence toward "technology," the focus on man's disruption of the environment, and the call for more social and legal controls. A question which may be suggested on the basis of C.H.E. experience is: How far are the estimates of man's disruption based upon romantic and therefore unrealistic models? With regard to disruption Ward and Dubos (1972:24) note that "Those of our consultants whose primary interest is theoretical ecology naturally urge that emphasis be placed on the earth ecosystem per se, man being considered chiefly as a disturbing element in it." (My emphasis). That they feel the need to make qualifying remarks about this point of view seems to be an important

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(1) Cf. Turner (1967:xvi) and Martindale (1958:26-28) who also point out the "disproportional" concern of C.H.E. with pathologies of society.

mark of dissimilarity between Classical Human Ecology and Modern Ecology. Not to be too much taken up with disruption so as to be able to be more aware of social movements in which we may well be participating indirectly (but with not as much self-consciousness as may be desirable - see pages 113-116) seems to be a lesson to be learned from C.H.E. experience. This is not meant to imply the unimportance of social controls.

(iv) Again following the C.H.E. reaction to Mannheim's challenge one may query the facts-values divide presupposed in Ward and Dubos' observations above. What does it mean to be told that experts agree on the "facts" but disagree on the "interpretation"? Or that difficulties arise not from uncertainties about scientific facts, but from differences in attitudes toward social values? In recognizing the importance of cultural values Ward and Dubos move in the same direction as Park and Wirth did (and the Neo-ecologists after them), in the last stage of C.H.E. The challenge, though, was to a greater awareness of the subjective and social elements by which scientific concepts themselves are generated and maintained. The recognition that "facts" are not isolated from the socio-cultural environment, especially in sociological analysis, needs to be recognized. The social and psychological histories of Ward and Dubos are not irrelevant.

E: A BRIEF COMPARISON BETWEEN CLASSICAL HUMAN ECOLOGY[1] AND MODERN ECOLOGY

a) WIDE RANGE IN INTERDISCIPLINARY INTERACTION IN MODERN ECOLOGY.

The interest Modern Ecology has provoked has reached a remarkably wide range of academics, writers, professionals, etc. While Classical Human Ecology drew its inspiration from biologists and geographers, and economists, the scale of interdisciplinary interaction in the modern debate is something new. This has made for refreshing debate. For instance, as against remarks of Professor Fuggle[2] who is reported (The Argus, 1972, Dec.9) as saying that his courses for Environmental

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(1) Cf. Chapter One, Section D, p.10ff.
(2) Dr. R.D. Fuggle is Professor of the newly established Shell Chair of Environmental Studies at the University of Cape Town.